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***The Structural Model in Parenting Style, Attachment Style, Self-regulation and Self-esteem with Smartphone Addiction***

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**Abstract**

Technological addiction has been a highly controversial and common issue globally. This paper explores the complexities and challenges surrounding Smartphone addiction and issues related to technological dependence with a particular focus on parenting styles, attachment and self-regulation. A convenience sampling method was used to gather data from 211 university students in Hong Kong (138 females/74 males) through their responses to four questionnaires. Structural equation modeling were used to test the hypotheses. One model was formed successfully which indicated that parenting style (authoritative and permissive style) can be a desirable predictor of attachment style (secure and dismissive) and self-regulation (impulse control and goal setting) to Smartphone addictions (positive anticipation, withdrawal, cyberspace relationship and overuse). Parenting style was a positive correlate to predict attachment, while the attachment positive correlated to predict self-regulation. Self-regulation was a negative correlate to Smartphone addiction. It was revealed that a positive parenting style and positive attachment style can form a significant model with self-regulation and Smartphone addiction. Furthermore, secure attachment has higher mediation power, while impulse control and goal setting behavior has a fairly mediated effect on influencing addiction tendency. The new finding may be the first paper to explore the relationships between Smartphone addiction and other constructs in educational psychology. Based on this finding, educators can gain insights into how parenting and self-regulation can influence the tendency towards excessive Smartphone usage. More educational programs which aim at promoting parenting skills, motivating children through self-regulation and goal setting is proposed through this study.

Keywords: Smartphone addiction, parenting style, attachment style, self-regulation

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## **Introduction**

Smartphone or related technology has been rapidly developed in the past decay, and the smartphone revolution is changing our world more than ever before. Smartphone has already emerged into our daily routine, those enormous influence of smartphone has already changed the manner of society function (Chóliz, 2012; Khang et al., 2011; Sánchez-Martínez & Otero, 2009). To explain the function on smartphone, two study has pointed out that (Kitamura et al., 2009; Sánchez-Martínez & Otero, 2009) mobile phone already evolutes into a way of reflecting self-identity, distinguishing themselves from others and enhance autonomy.

Smartphone is the most common and important "computer like" device in developed countries. According to South China Morning Post (Kao, 2013), Hong Kong has the highest smartphone usage rate and over 96 per cent of young generation use it intensively every day. In other developed countries, over 45% of population are using smartphone in their daily life basis (Bianchi & Phillips, 2005; Oulasvirta et al., 2012; Takao et al., 2009). Because of the high using rate, sign of addiction or dependence under the use of smartphone is rapidly rising in all developed countries (Bhatia, 2008; Sánchez-Martínez & Otero, 2009).

Although there are still controversial on the existence of problematic use of smartphone, the impact already beyond our imagination. A survey in Korea found that larger percentage of people are addicted to smartphone rather than internet (Cho et al., 2013; National information society agency, 2012). It also believed that it contributes to increase number of cases of bullying or harassment, high level of social anxiety, low self-esteem and complicate symptoms in behaviour problems among adolescents (Kitamura et al., 2009; Srivastava, 2005). Also, it has been reported that technological like dependence has a similar degree of addiction compare with gambling or drug abuse (Cho et al., 2013), hence there is a potential risk of pathological use and dependence of smartphone.

For this decay, most studies are focused on the negative consequence on mobile phone use (e.g. excessive texting or driving while using phones), but there is no study aiming at discovering the cause of dependences in communication devices, especially smartphone. This research will use parenting style, attachment style, self-regulation and self-esteem as the starting point to explore the situation on smartphone addiction in Hong Kong, as those are the important factors of young adolescent's development. Also, hope to explore the possible framework between parenting style and smartphone addiction, raise awareness of the danger of excessive smartphone use.

## **Literature Review**

### **Parenting style and Attachment**

Baumrind's theory of parenting style (1971) is adapted in the research to investigate the relationship between parenting and Smartphone. According to the level differences in parental demandngness and responsiveness, three parenting styles have been distinguished and they are authoritarian, authoritative and permissive (Asgari et al., 2011; Baumrind, 1971). In this research, parenting style is the main predictor of



affecting people's attachment style, self-regulation and self-esteem, it will discuss in the following literature.

Parenting is highly linked to children's deviant behavior, addiction and psychological problem. In the long history of studying parenting style, there are different theories and researches suggested that, to efficiently prevent children delinquency is to have a good parenting and parental monitor skills (Lee & Leung, 2012; Kerr & Stattin, 2000). Good and positive parenting is highly associate with their prevention of children's delinquency, psychological, behavior dysfunction and addiction (Al-Bahrani, 2011; Betts et al., 2013; Kehl, 2008).

Besides the effect on parenting, attachment also influence people view of self and others. According to Bartholomew's attachment styles (Bartholomew & Horowitz, 1991), it can separate into secure, preoccupied, fearful and dismissing style (Denollet et al., 2011; Huntsinger & luecken, 2004). Different attachment style can have a different view of self and other, hence develop different levels of security. With positive attachment, like secure attachment, they are more stable while facing separation anxiety and form closer emotional bonding. Also, less tendency of facing distress, less alcohol and drug addiction, more positive behavior outcome and have higher self-esteem.

As attachment is highly associate with parenting style, these two important factors will shape people's worldview, schema and their behavior outcome.

### **Self-regulation**

Self-regulation is an essential mediator in goal achievement and emotional independence, which mainly developed in adolescent. According to the first theory on self-regulation, it mentions that "self-regulation is the ability to develop, implement and flexibility to maintain planned behavior to achieve one's goals" (Asgari et al., 2011). Some research takes social environment, parenting and genetic factors as the effect of self-regulation. In this research it will focus on the area of impulse control (allow delay gratification in short term) and goal setting behavior (subsume goal-direct behavior) (Carey et al., 2004).

Social environment, parenting and genes can shape person's self-regulation. In parenting theory, it points out that positive parenting and warmth can relate to better development of self-regulation, while excessive parental control will hinder children's develop proper self-regulation schema (Baumrind, 1991; Moilanen, 2007). Therefore, different parenting style may cause positive or negative development of self-regulation among children, adolescent and young adult. Also good psychological and behavior control in caregiver also helps predict university student's emotional regulation (Manzeske & Stright, 2009).

Furthermore, self-regulation was associate with various personal achievement, success, social problem and psychological disorder (Mazzucchelli & Sanders, 2013). Level of self-regulation is significantly linked into people's behavior of adjustment and achievement. People with good self-regulation may experience better psychological health, interpersonal relationship, even higher income and academic achievement. There is significant correlation on self-regulation and addiction among

teenagers, as self-regulation is related to person's decision making, emotional and impulse control. It is essential reference on many psychological interventions and problematic behavior prevention (Mazzucchelli & Sanders, 2013; Moilanen, 2007). People with low self-regulation skills on impulse control and goal setting behavior, have higher risk on problematic behavior and substance use (Carey et al., 2004).

Self-regulation is an important mechanism in many psychological interventions (Sanders & Mazzucchelli, 2013). According to Jessor and Jessor (1977), high degree of self-regulation is a good prevention for deviant behaviour. Also, numbers of studies supported that there is a significant correlation on self-regulation and addiction among teenagers. It is because self-regulation is linked to person's emotional and impulse control, therefore, low self-regulation is contributed to adolescence's problematic behaviour or substance use (Moilanen, 2007).

### **Self-esteem**

There are different studies support possible relationship among parenting style and self-esteem, especially in young adulthood (Cardinali & D'Allura, 2001; Lee & Leung, 2012). They prove that people raised under authoritative parenting style, those with supportive, warm and responsive parenting, will have higher self-esteem, more independent and socially adjusted. The reason is that parents with higher sense of control and caring behavior, like authoritative parenting style, will develop better parent and children interaction, then enhances children's self-esteem (Karimpour & Zakeri, 2011; Garcia & Martinez, 2008). Therefore, in this study parenting style may possibly link to self-esteem, as self-esteem is constrained by various variables and the result between parental authority, control and self-esteem is inconsistent (Karimpour & Zakeri, 2011).

Self-esteem is a good indicator on people's adjustment, relationship satisfaction, people with poor view of self may be committed more on deviant behaviour. Studies point out that self-esteem are negatively related to Internet addiction and other addiction like symptoms (Khang et al., 2011; Kim & Yea, 2003). Also, for the interpersonal interaction view, people with low self-esteem prefer indirect communication rather than direct face to face interaction compared with those with high self-esteem (Kim & Yea, 2003). Studies have proved that strong correlations between self-esteem, problematic mobile phone use and other addictive behaviour (Kitamura et al., 2009; Chiu, 2014). Besides, people with low self-esteem prefer indirect communication (e.g. messages or social media) to seek assurance, they may have higher chances for depending on smartphone to interact with others and develop uncontrollable usage of phone (Billieux, 2012; Kitamura et al., 2009; Joinson, 2004).

### **Attachment to self-regulation and self-esteem (put some to discussion point)**

According to Schore and Schore (2008), caregiver-infant relationship might help develop the ability of self-regulation. From Shaver's model of self-regulation and attachment (Asgari et al., 2011; Mikulincer, 2010), attachment did influence people's achievements. The model noticed that, secure attachment can let people become more calm and confident to deal with difficulties and with a more effective plan. While people who are insecure are more emotionally disturbed from the threats and have a tendency to depend on others, hence lack self-regulation skills. Also, as parenting and

attachment are highly correlated, a good parenting and attachment may positively related to good self-regulation.

### **Smartphone addiction**

Addiction has define as "repetitive habit pattern increase risk of disease, personal and social problem; and experience the feeling of loos control" (Bare et al., 1988). Social networks and other online activity are the causes of the wild spread of smartphone use. Smartphone already discover can leads to mental health symptoms such as sleep disturbance and depression (Eklöf Et Al., 2007; Hagberg Et Al., 2011). Most of the researches define smartphone addiction as one of the behavioural addiction or name as "cyber-addiction", symptom include uncontrollable use of mobile phone and online activity, craving or distress while withdrawal, even damaging interpersonal relationships (Billieux, 2012).

Unfortunately, there is no official definition or explanation on the cause and symptoms of excessive smartphone use, because it is difficult to distinguish whether "non-chemical" and "human-machine interaction" can be defined as an addiction (Griffiths, 1996; Lee & Leung, 2012). It is because the majority of past research which studies smartphone addiction are based on literature of internet addiction. Hence, although more and more research pointed out the impact on excessive use of mobile and compare with substance abuse, people still criticize smartphone addiction as the new dependence like behavior.

No matter the official diagnosis exists or not, some research has already linked smartphone dependence, internet addiction and technological addiction with other problematic behaviour and daily life dysfunction. Some study discovered that (Chiu, Hong & Huang, 2012), female are more addicted to mobile phone, because they use it as a method of maintaining close interpersonal relationship. Also, university student who is extrovert and with higher anxiety are correlated with phone addiction.

In this research will mainly focus on evaluating the behavior of smartphone addiction based on Koera well developed scale and studies (Cho et al., 2013), and five types of addiction symptoms are:

1. Daily life disturbance  
Missing planed work, difficulty in concentrating on specific tasks or caused physical pain.
2. Positive anticipation  
Feeling excited or stress relief with smartphone use and feeling empty without smartphone.
3. Withdrawal  
Intolerable without a smartphone, irritated when bothered.
4. Cyberspace-oriented relationship  
Feeling more intimate with virtual friendship or constant phone-checking behavior.
5. Overuse  
Uncontrollable habit and urge to check and use smartphone.

## Research Hypotheses

The hypothesis below are formulated according to the research question:

H1: Parenting style (authoritative, authoritarian and permissive style) is a significant predictor with attachment style (secure, preoccupied, fearful and dismissing style).

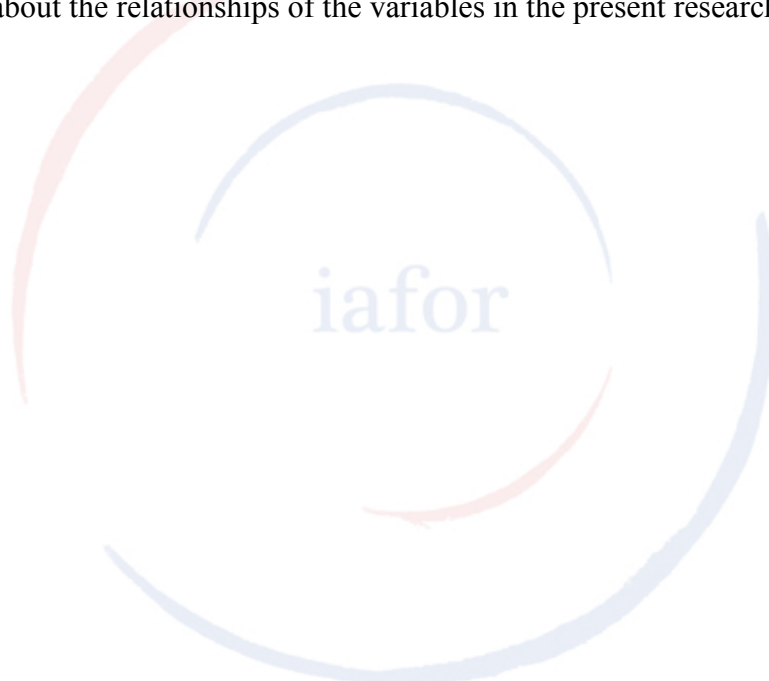
H2: Attachment style (secure, preoccupied, fearful and dismissing style) is a significant predictor with self-regulation (impulse control and goal-setting).

H3: Attachment style (secure, preoccupied, fearful and dismissing style) is a significant predictor with self-esteem.

H4: Self-regulation (impulse control and goal-setting) is a significant predictor with smartphone addiction.

H5: Self-esteem is a significant predictor with smartphone addiction.

Due to the linkage between variables, a model was established. Figure 1 shows the framework about the relationships of the variables in the present research.



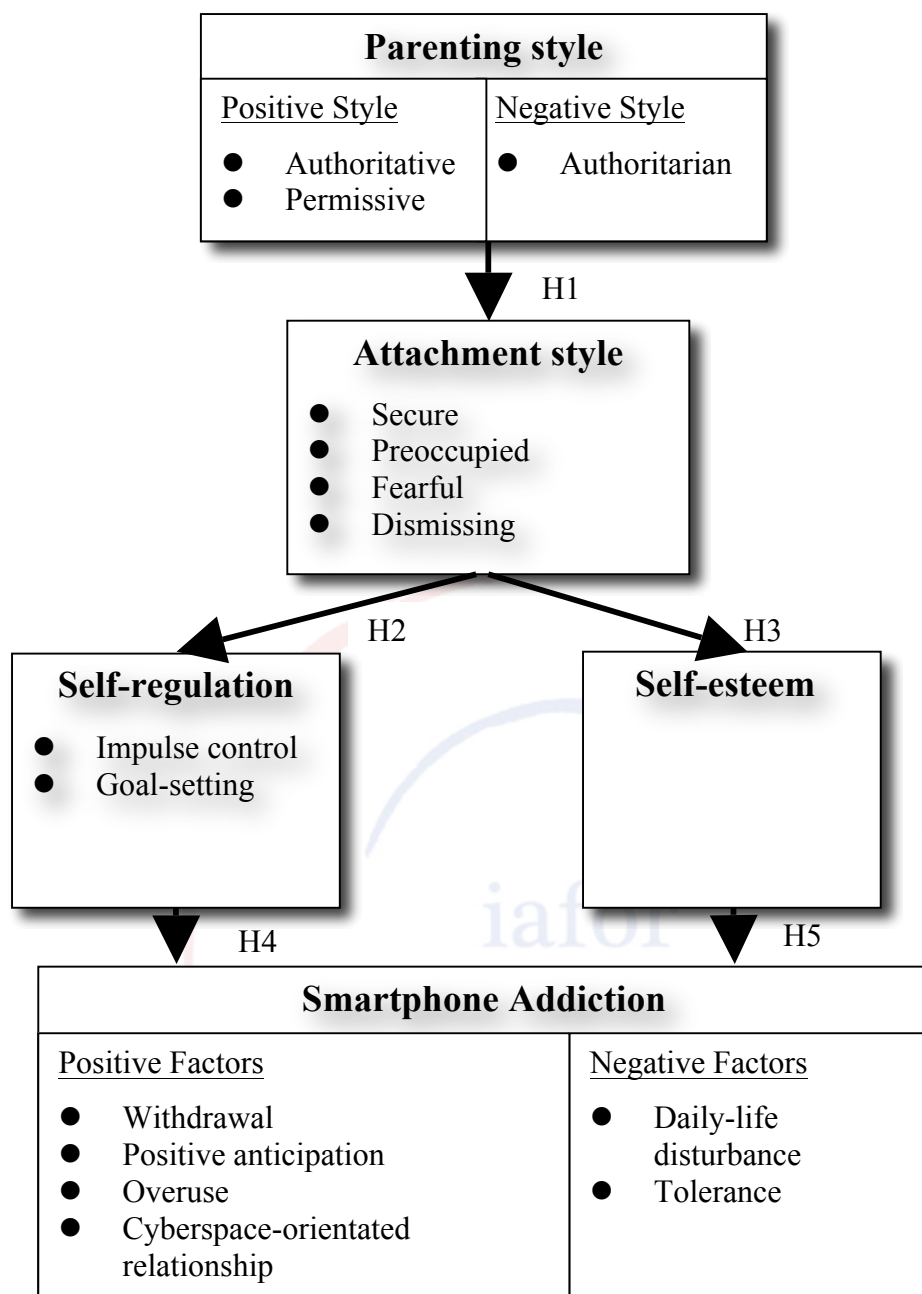


Figure 1. Research framework

### *Specific Hypothesis*

There are two possible pathways between parenting style and smartphone addiction.

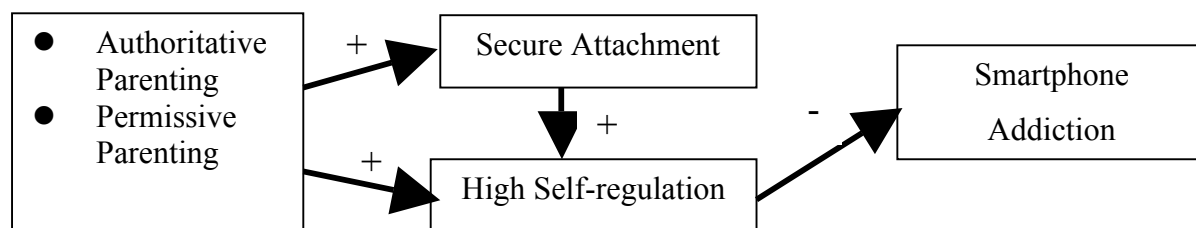


Figure 2. Model 1, Authoritative and permissive parenting style'

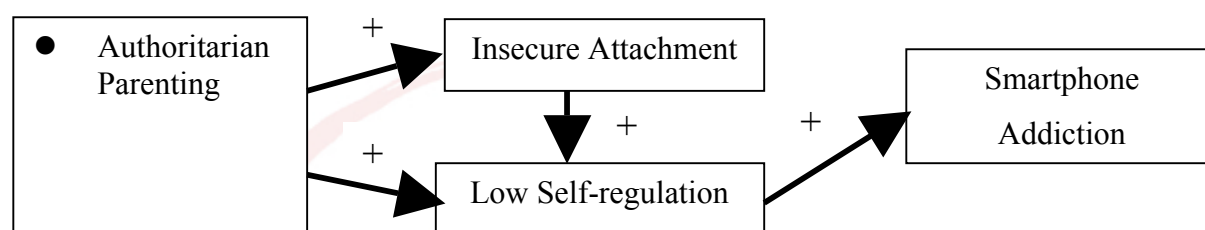


Figure 3. Model 2, Authoritarian parenting style

### **Research Method**

By convenience sampling, cross-sectional design was used, 211 people participate in this studies (Age:  $M = 22.4$ ,  $SD = .86$ .) All participant are require to use smartphone not less than one year.

This research was conducted by self-report survey which include questionnaire to help assess participant's parenting style, attachment style, self-regulation, self-esteem and degree of smartphone dependence. All questionnaires were in Likert scales and with satisfy tested reliability and validity, in order to have a persuasive result and support for the research framework.

Five questionnaires, total number of 188 question was use. The measurement as below:

1. Perceived parenting style: Chinese Parental Authority Questionnaire (CPAQ) (2002)
2. Attachment style: Chinese Relationship Styles Questionnaire (CRSQ) (2003)
3. Self-regulation: Short self-regulation questionnaire (SSRQ) (Carey et al., 2004; Carey & Neal, 2005)
4. Self-esteem: Chinese version of Rosenberg self-esteem scale (CSS) (1965)
5. Smartphone addiction: Smartphone addiction scale (SAS) (2013)

## Results

### *Descriptive Statistics and Correlational Analysis*

In this research, 15 measured variables from 5 questionnaires were analysed through means, standard deviations and correlation analysis. The result has been shown in Table 1, sixty out of one hundred and five correlations were statistically significant and were greater than or equal to .12. Over 57% of the data.



Table 1  
Zero order Correlations, Means, and Standard Deviation for Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Parenting Style															
1. Authoritative	--														
2. Authoritarian	-.250**	--													
3. Permissive	.471**	-.392**	--												
Attachment Style															
4. Secure	.336**	-.202**	.320**	--											
5. Anxious	-.187**	.269**	-.228**	-.389**	--										
6. Dismissive	.229**	-.122	.234**	.152*	-.112	--									
7. Fearful	-.044	.201**	-.047	-.450**	.391**	.207**	--								
Self-regulation															
8. IC	.090	-.087	.158*	.453**	-.350**	.092	-.326**	--							
9. GS	.162*	-.014	.222**	.492**	-.186**	.106	-.265**	.619**	--						
Self-esteem															
10. Self-esteem	.255*	-.226**	.308**	.641**	-.430**	.068	-.372**	.538**	.508**	--					
Smartphone Addiction															
11. DD	-.037	.014	.083	.107	-.200**	.073	-.259**	.376**	.221**	.163*	--				
12. PA	.126	.127	.088	-.002	.057	.066	.153*	-.342**	-.124	-.185**	-.433*	--			
13. Withdrawal	.078	.180**	-.013	-.075	.168*	-.103	.204**	-.321**	-.184**	-.221**	-.429**	.613**	--		
14. CR	.024	.258**	-.010	-.118	.129	-.061	.230**	-.332**	-.165*	-.227**	-.349**	.611**	.598**	--	
15. Overuse	.094	.117	.011	-.002	.184**	.018	.167*	-.146*	-.038	-.074	-.442**	.437**	.674**	.456**	--
<i>M</i>	3.22	3.03	3.00	3.85	4.13	3.90	3.30	3.24	3.49	2.74	3.63	3.34	3.32	3.03	3.78
<i>SD</i>	.57	.45	.53	.63	.79	.73	.74	.46	.49	.37	.86	.67	.89	.78	.90

Note: IC=Impulse-control, GS=Goal-setting, DD=Daily-life Disturbance, PA=Positive anticipation, CR=Cyberspace relationship, \*p<.25 \*\*p<.01 \*\*\*p<.001



*Reliability Analysis*

Scale	$\alpha$
Parenting Style	
1. Authoritative Style	.845
2. Authoritarian Style	.635
3. Permissive Style	.765
Attachment Style	
4. Secure	.722
5. Anxious	.806
6. Dismissive	.760
7. Fearful	.794
Self-regulation	
8. Impulse Control	.731
9. Goal-setting	.825
Self-esteem	
10. Self-esteem	.825
Smartphone addiction	
11. Dailylife Disturbance	.774
12. Positive Anticipation	.823
13. Withdrawal	.850
14. Cyberspace Relationship	.831
15. Overuse	.729

Table 2. Coefficient Alphas and Items Comprising the Scale of Five Questionnaires

*Confirmatory Factor Analysis*

With satisfy result on tool's correlations and Cronbach's alpha, confirmatory factor analysis was conducted. All scales were parcelling and deleting those deviant items in order to make a best fit model. After item parcelling and deletion, the confirmatory factor analysis was conducted as below.

Questionnaires	df	$\chi^2$	$\chi^2/df$	GFI	CFI	RMSEA
CPAQ	74	159.69	2.16	.90	.97	.079
CRSQ	164	473.06	2.88	.81	.87	.095
SSRQ	26	76.83	2.96	.92	.96	.097
SAS	179	421.04	2.35	.83	.96	.080

Note:  $\chi^2$  = Minimum Fit Function Chi-Square; RMSEA = Root Mean Square Error of Approximation; GFI - Goodness of Fit Index; CFI = Comparative Fit Index

Table 3. Goodness of fit indicator for CPAQ, RSQ, SSRQ, SAS

### **Structural Equation Modeling (SEM) with Parenting Style, Attachment Style, Self-regulation and Smartphone Addiction**

The relationship between the observed variables and the underlying latent variables in parenting style, attachment style, self-regulation, self-esteem and Smartphone addiction is shown in the figure below. The hypothesized model was tested with maximum likelihood method,  $X^2(32) = 80.59$ , Goodness of Fit Index = .934, Comparative Fit Index = .926, Root Mean Square Error of Approximation = .087. Since CFI is higher than .9, a fit structural equation model was established.

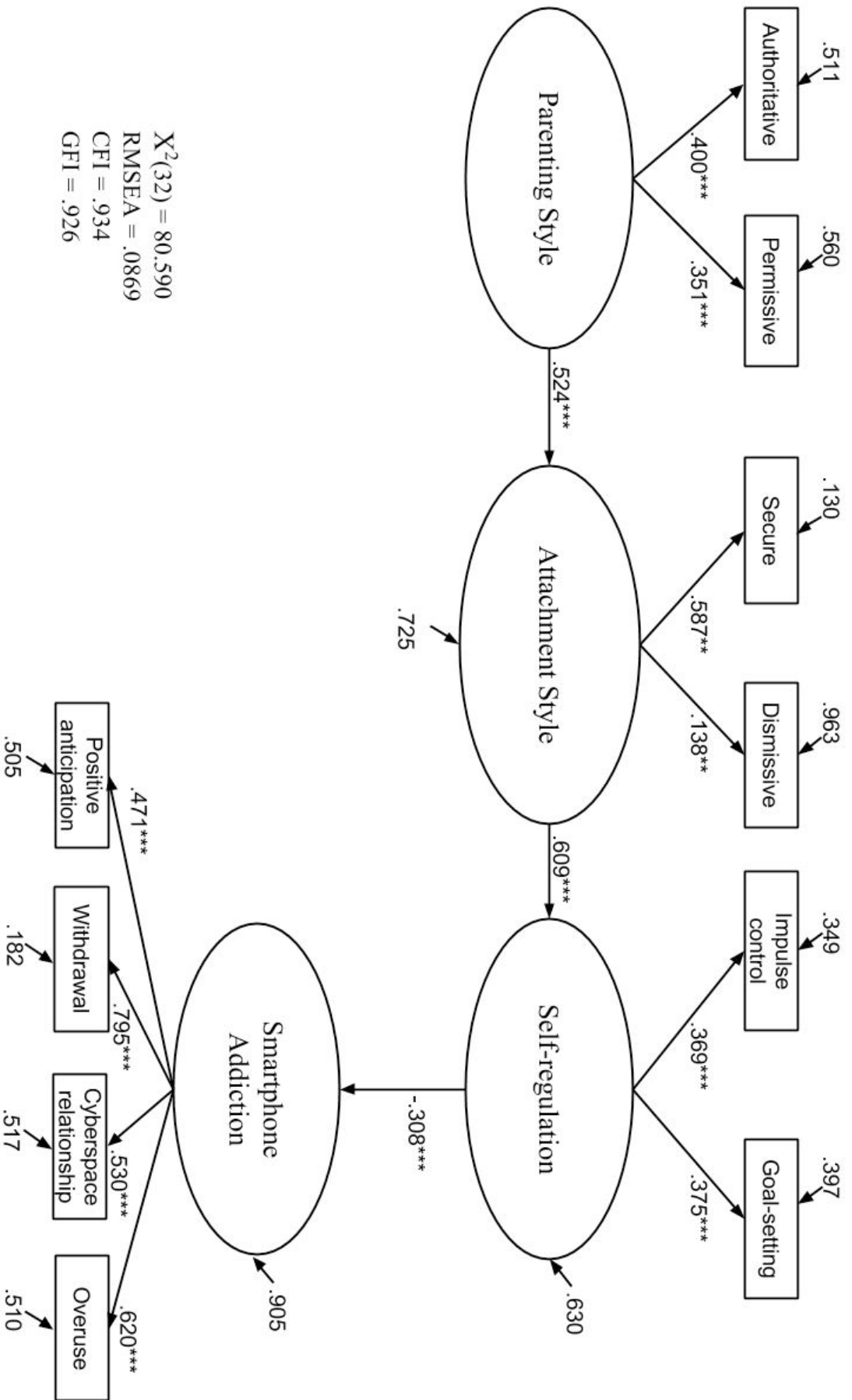
Parenting style included 2 observed variables concerning authoritative and permissive style. Parenting style was ( $p < .001$ ) significantly related with authoritative ( $\beta = .40$ ) and permissive ( $\beta = .35$ ). It shows that authoritative parenting style was the best predictor in this model.

Attachment style also included 2 observed variables concerning secure and dismissive style. Attachment style was ( $p < .01$ ) significantly related with secure ( $\beta = .59$ ) and dismissive ( $\beta = .14$ ).

Self-regulation included 2 observed variables concerning impulse control and goal-setting. Self-regulation was ( $p < .001$ ) significantly related with impulse control ( $\beta = .37$ ) and goal-setting ( $\beta = .35$ ).

Smartphone addiction includes 4 observed variables concerning positive anticipation, withdrawal, cyberspace relationship and overuse. Smartphone addiction was ( $p < .001$ ) significantly related with positive anticipation ( $\beta = .47$ ), withdrawal ( $\beta = .80$ ), cyberspace relationship ( $\beta = .53$ ) and overuse ( $\beta = .62$ ).

For the relationship between latent variables, parenting style was positively significantly ( $p < .001$ ) related with attachment style ( $\beta = .52$ ). On the other hand, attachment style was positively ( $p < .001$ ) related with self-regulation ( $\beta = .61$ ). Furthermore, self-regulation was negatively ( $p < .001$ ) related with smartphone addiction ( $\beta = -.31$ ).



$\chi^2(32) = 80.590$   
 RMSEA = .0869  
 CFI = .934  
 GFI = .926

Figure 4. The structural model of the link between parenting style, attachment style, self-regulation and smartphone addiction. Note: RMSEA = Root Mean Square Error of Approximation; GFI = Goodness of Fit Index; CFI = Comparative Fit index \*\* $p < 0.01$  \*\*\* $p < 0.001$

## Discussion

One SEM model with self-regulation was established with good fitness. The linkages between positive parenting style, positive attachment style, self-regulation to smartphone addiction was found. And this model is consistent with the hypothesis, as positive parenting style might predict higher self-regulation then to addiction. In line with past studies, parenting style was positively related to self-regulation (Baumrind, 1991; Moilanen, 2007), whereas low self-regulation were negatively related to problematic behaviour (Moilanen, 2007). Self-esteem, negative parenting style and negative attachment style cannot successfully form any SEM model to predict smartphone addiction. This implies that negative parenting style might not be a good predictor on this research.

In this model, authoritative and permissive parenting style has similar predictive power. It revealed that people who receive authoritative and permissive style, would generate positive attachment style hence effect the development of person's self-regulation. Moreover, impulse control and goal-setting also has fair power on predicting smartphone addiction.

The result strongly point out that good parent-child interaction and relationship had a positive effect on prevent compulsive smartphon use. People who receive or perceive themselves in positive parenting would develop higher trust, sense of control in relationship with others, less urge to gain the feeling of being connected. Furthermore, secure attachment has higher predictive power on self-regulation than dismissive attachment. Secure attachment develop higher internal locus of control compare with dismissive parenting, lead individuals to be more active and responsive on their life, also they are more calm and confident to deal with difficulties and distress by using effective plan. Besides, positive parenting is really important on addiction prevention, as it strong link with self-regulation.

We should aware is that Smartphone use is a pleasure pathway response, induce persistent activity with reward-based behaviors. It yield immediate gratification and diminished sense of volitional control (Hagberg, Thomée, & Härenstam, 2011). People with high sense of self-control would more aware of the reason and aim of their specific behavior, it makes them less likely to use smartphone compulsively. People with high self-regulation tendency may have better self decision and higher feeling of control in their life, less tendency to strike for external and immediate satisfaction which smartphone can provide. Another explanation is that, for people with good regulation they consider smartphone use as informational purposes rather than communal purpose. User with higher motivation for achieving instrumental goals, smartphone could be perceive as tool to achieves such goals and have better inhibitory control while using the device, less tendency to act out impulsively aggressive behaviour. Also, because the high goal-aimed tendencies and self-reflective character, they would aware most of the reason and cause of their behaviour, less likely to use smartphone compulsively.

The founding also show that impulse control and goal setting have fairly power to be a negative mediator to smartphone addiction. With adequate inhibitory control, less impulsive aggressive behavior and less change of addiction towards Smartphone. The level of self-regulation may represent people capacity on delay gratifications, also

more strength to react on stimulus, less deviant or unplanned behaviour might occur. For those reasons, self-regulation may have strong linkage in smartphone addiction because the dependence of smartphone is the product of unregulated and uncontrollable behaviour.

But one thing we needed to aware is that Smartphone addiction not only affect user's mind and body, but also influence the interaction mechanism and relationship between the parents and children. Hence, the changing way of communication with technology and smartphone makes the traditional theory of parenting style might not successfully adapt to the modern world, more investigation and discovery is essentially needed.

### **Research Implications**

In the aspect of self-regulation, the present research pointed out that, goal-setting and impulse control has similar predictive power but contradict relationship with smartphone addiction. A better educational programs for cultivating student in good and balance self-regulation skills could be launched. Especially, program on educate better impulse control skills and healthy goal setting habits can be hold. While student learn to have good impulse control skills and fairly achievable goal, less tendency to smartphone addiction or other dependency might cause. For clinical use, the finding might also help provide insight on developing useful tools for addiction rehabilitation plan.

### **Conclusion**

As there is limited research has focused on exploring the cause and effect in smartphone addiction, also they fail to provide a comprehensive framework on technological dependence, this study can raise interest or awareness for further exploration in this area.

This study has proven the relationship between parenting style, attachment style, self-regulation and smartphone addiction.. Besides, the positive parenting style and attachment style would also generate higher impulse control and goal setting skills, which influence the tendency of smartphone dependence. For theoretical perspective, the present paper can provide a new vision for further research. This research also explores new smartphone addiction measurements and examined the concept of educational psychology, such as parenting style and attachment style.

Furthermore, there are no conceptual definition and explanation on whether smartphone or other technological dependences can be counted as an "addiction" or "disorder". Hope this research may give support evidence on phone addiction or raise a new area of investigating the effect on this new type of non-substance dependence. Also, to promote the importance of healthy family communications and positive parenting style for a better development outcome among children.

The drawback of the result is that, it cannot explore the direction of correlation, parenting may influence the addiction probability and vice versa. Also, for the long term smartphone use may also changes the ways of interpersonal interaction especially in parent-child relationship. For this point more discover is need in future focus on the interrelated influence between parenting and Smartphone addiction.

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## ***Band Musicians in Macau***

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### **Abstract**

Researchers have documented the potential social benefits of popular music, such as empowering young people to cope with life challenges, providing a positive force for social change and enabling youths to connect with and express their indigenous cultures.

In Macau, growth of a native music industry has been constrained by a tiny population and limited local media, but recently there has been growing support for the work of local musicians in recognition of the potential social as well as commercial impacts of their work. At the same time, wider forces such as the Internet and the increased exposure to foreign music influences are affecting the development of popular indigenous music in Macau.

In order to investigate the impact of these factors on the growth of Macau's popular music industry and provide insights into the experiences and attitudes of young musicians, qualitative interviews were conducted with members of two of Macau's most popular indigenous bands – Black Sheep and Catalyser.

The research demonstrates the central and meaningful role of music in the lives of the interviewees and indicates that young musicians and bands in Macau continue to face a range of constraints and challenges. These include, for example, perceived inadequacies of formal music education and financial and other practical difficulties related to a career in music. The findings are expected to be of practical value to Macau and other countries wishing to develop and promote a local popular music industry.

Keywords: Macau, popular music, bands, qualitative, interviews.

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## **Introduction**

Researchers have documented the potential social benefits of popular music, such as empowering young people to cope with life challenges, providing a positive force for social change and enabling youths to connect with and express their indigenous cultures.

In Macau, growth of a native music industry has been constrained by a tiny population and limited local media, but recently there has been growing support for the work of local musicians in recognition of the potential social as well as commercial impacts of their work. At the same time, wider forces such as the Internet and the increased exposure to foreign music influences are affecting the development of popular indigenous music in Macau.

In order to investigate the impact of these factors on the growth of Macau's popular music industry and provide insights into the experiences and attitudes of young musicians, qualitative interviews were conducted with members of two of Macau's most popular indigenous bands – Black Sheep and Catalyser.

## **Background**

Researchers have found evidence that playing and listening to popular music has important benefits for adolescents and youths, and can represent a positive force in social change. Engaging with music has been shown to be an effective psychological and emotional coping strategy for young people (Travis, 2012), and there is evidence that music can positively influence moods, promote mental health, and help youths to cope with concerns in areas such as love, sexuality, family issues and social change (Laiho, 2009; McFerran & Saarikallio, 2013; Thompson & Larson, 1994).

Schools play an important role in this process since many young people first develop an interest in music during their early education, particularly when learning to play an instrument or taking part in a performance. Participation in school music lessons is known to be positively associated not only with longer-term involvement with music (Pitts, 2008) but also with academic achievement and reasoning skills (Gouzouasis, Guhn, & Kishor, 2007; Forgeard, Winner, Norton, & Schlaug, 2008)

Music is also one of the main ways in which popular culture is manifested and transmitted, and in some contexts has been used by musicians and their followers to influence social and political change (Adegoke, 2011; Bonastre, 2011). By forming bands with other young people of similar backgrounds and musical tastes, musicians often create distinct identities based on “shared pathways” (Finnegan, as cited in Bennett, 2001), which also provide a sense of separateness from conventional social institutions such as the family, the workplace and school (Bennett, 2001). Within individual countries or geographical regions, music is often a means by which young people connect with and express their indigenous cultures in unique ways. Local bands often develop musical styles that reflect elements of traditional native music, while being influenced by pop, rock and other genres from different countries. Sometimes referred to in the literature as “transculturation” or the influence of local cultural traditions and global music industry standards (Wallis & Malm, 1987, as cited

in Kong, 1995), the resulting style can provide a strong focus of identity for local youth.

The development of a local popular music culture is in its early stages in Macau, and is being promoted and supported by commercial interests and the government alike. Macau's youth have in the past been mainly influenced by pop music from Hong Kong, Taiwan and other Asian countries, but a reported trend in "indigenouslyness" ("The rise of indigenouslyness in Hong Kong", 2013) in Macau is perhaps one factor driving the increasing popularity of local music bands and growing interest in Macau's popular music industry. In order to investigate this phenomenon from the perspective of young musicians themselves, and to identify the factors that are facilitating as well as constraining growth in this sector, the present study used qualitative interview methods to investigate the personal experiences of members of two of Macau's most popular indigenous bands – Black Sheep and Catalyser.

### **Research Participants**

Black Sheep was formed in 2009 by a group of six musicians with diverse backgrounds. Its members are more experienced and older than those of Catalyst; the main Black Sheep interviewee also works as a guitar, bass and ukulele teacher. The band does not have a fixed music style; its members report that they experiment with a variety of different sounds, influenced largely by foreign bands.

Catalyser consists of five college students, four boys and one girl, who met at secondary school and initially formed a band to perform in the school's Christmas show. The band members have written their own lyrics since school days and have been highly successful in Macau music competitions, winning many awards in recent years. Their main influences include Cantonese pop and independent Hong Kong bands, but the band endeavours to incorporate these into its own unique style.

Two members of each band were interviewed for the study; the primary research findings set out below are supplemented with material from other cited sources.

### **Development of Interest in Music**

The band members reported developing an interest in music from an early age, often as a result of involvement in school productions or shows. However, their responses indicated that formal music education in Macau's primary and secondary schools is not effectively promoting or nurturing musical skills among young people.

For example, members of both bands recounted that their school music lessons had been focused almost exclusively on singing; one noted that this was linked to the over-riding popularity in Macau of inter-school singing competitions (Concurso Escolar de Canto). The interviewees indicated that they learnt very little musical theory at school, and mentioned that some graduating students cannot read sheet music at all. One of the members of Black Sheep explained that lessons had been focused only on enabling students to pass examinations, and did not generally inspire students to become interested in music. This interviewee had been taught to play the saxophone in primary school, but explained that because this was not his preferred choice of instrument he later chose to take music lessons outside of school.

Members of both bands suggested that school music lessons should focus more on teaching music theory and should also be more tailored to the specific interests and talents of students.

### **The Role of Music in Band Members' Lives**

The interviews revealed that music in general, as well as their own band, is very central to the personal lives of these young people, giving them a focus of identity and purpose, as well as the ability to overcome problems together. As one Black Sheep member said "No music, no life. No band, no life." The Catalyst interviewees reported important psychological effects when playing, such as relaxation and relief from the stresses of everyday life. However, as highlighted by the Black Sheep interviewees, hard work, persistence and continual improvement are necessary to succeed in their chosen field and gain the trust and approval of others that are essential for securing engagements.

All of the interviewees demonstrated a strong commitment to continually improving their musical abilities, and regularly rehearse for long hours. For Black Sheep, who regularly perform in public, each performance requires at least eight hours rehearsal time. The Catalyst band members are still full-time students, but have worked as part-time tutors to pay for their own instruments and rent a band room. They report spending at least three evenings every week practicing their music for at least two hours, with longer rehearsal times when preparing for a performance. They clearly enjoy their practice times, explaining that they chat and have fun while rehearsing. Discussion of their favorite tracks indicate that the band are keen to experiment and be creative in combining a range of different influences in their music writing, with these influences achieved largely through performing in band shows and interacting with other musicians at home and in other countries. Following a Hong Kong trend, Catalyst occasionally performs on the street, a novel development for Macau.

### **Influences and Aspirations**

The Catalyst interviewees indicated that in school their focus had been on rehearsing mainly for performances, but after they graduated music became more personal to them and their commitment to it also increased. An evolution in their music can be discerned; Catalyst became well-known within Macau largely because of their songs about social issues such as domestic violence, cruelty to animals and discrimination of the disabled ("The best band in Macau for two consecutive years", 2015), but their lyrics now reflect a greater emphasis on more personal life experiences, drawing both on their own lives and those of their friends.

Members of both bands highlighted the importance of the Internet in exposing them to foreign musical influences and helping them to improve their musical skills. For the Black Sheep interviewees who have already participated in large concerts in Mainland China and interacted with other foreign band members there, the Internet was reported to be a particularly important source of information about the music of other bands, particularly those from other countries. Similarly, the Catalyst interviewees indicated that the Internet has been a major factor helping to drive the Band's progress. The main overseas music influences on Catalyst were reported to be pop artists from Hong Kong and Taiwan, whose advanced compositional techniques are revered by the

band, and the interviewees expressed a desire for more foreign artists to perform in Macau.

The interviewees observed that there are strong mutual influences between the pop styles of various Asian countries. Though it incorporates these influences, Macau pop music is also seen to have unique characteristics. Black Sheep referred to a new local music style called “M-Rock” which many local bands are now reportedly incorporating in their work. According to the Black Sheep guitarist interviewed, one of the main differentiating characteristics of Macanese pop music is its non-commercial focus, which is in stark contrast with the pop music of Hong Kong and Taiwan and largely reflects the difficulty of achieving profitability within Macau’s small market. The reported benefit to musicians is the ability to be creative in their work and not constrained by market demands. The Catalyst vocalist similarly emphasized the importance to the band of creating music that is meaningful to them, rather than tailored to consumer preferences. Somewhat in contrast to this, though, the Catalyst interviewees also expressed a desire to release a CD, which they perceive to be an important tool in promoting the band both within Macau and overseas, and securing more engagements.

In contrast with the Internet, local media in Macau is not seen as important for promoting the music of the bands as this is rarely used by young people to find out about pop music trends.

### **Challenges of being a Musician in Macau**

Despite their obvious love for music and performing, the interviewees indicated that they feel constrained from pursuing music as a professional career within Macau because of the challenges of a limited market and inadequate government support. Indeed, as one mentioned, the size of the local population and potential market is just too small to enable people to survive as full-time musicians in Macau, and most choose this field for the love of music rather than the incentive of making money. Despite this, one noted that the increasing affluence of the Macanese population and their interest in attending performances are important factors helping to drive the growth of Macau’s indigenous pop industry.

The participants acknowledged that the Macau government is now actively promoting the local music industry by providing subsidized accommodation for rehearsals and performances, and by organizing band competitions and international music festivals to help boost Macau’s pop music industry. Despite these initiatives, they report that many underground bands in Macau lack adequate hardware or software to create their music, and do not have space or appropriate facilities available for recording or rehearsing. Both of the bands interviewed reported that non-affordable rents for band rooms had been a barrier in their own progress. For Catalyst, rapidly increasing rents had prevented them from continuing to rent a band room, but they had been fortunate to be provided with a room by their management company. It was also mentioned that many band studios are in inconvenient locations where disturbance to neighbors is a frequent concern of the musicians, and the environment is generally not conducive to learning and performing music. The ideal environment for their work, according to these interviewee, would include a suitable rehearsal room, high quality recording

facilities and a ready audience, as well as more Government sponsorship of local bands and opportunities to perform in public.

The band members highlighted the importance in their own experiences of having access to family support, both financial and in other ways such as finding premises for the band members to rehearse in. For some of the interviewees, this support had been received even though their family members did not initially understand their interest in pop music and the purpose of forming a band.

## **Conclusion**

This research demonstrates the central and meaningful role of music in the lives of the interviewees and highlights the ways in which the development of popular indigenous music in Macau is being both shaped and constrained by wider social forces including the education system, government and the exposure to foreign music influences largely via the Internet.

It indicates that young musicians and bands in Macau continue to face a range of constraints and challenges, which unless addressed may inhibit the formation of indigenous bands and the growth in popularity of native popular music in Macau.

In particular, the findings highlighted two main challenges. First, the perceived inadequacies of formal music education at schools in Macau, which meant that the band members interviewed for this study had to pursue their musical interests and knowledge through other avenues and in their own time. There is strong evidence from research conducted internationally that music education in school is associated with a range of benefits, related not only to the development of musical skills and abilities but strong academic performance in general.

Second, the interviewees reported financial and other practical difficulties that they perceived to be hindering their pursuit of a career in music. Although there have been recent efforts on the part of the Macau Government and other stakeholders to provide financial and practical support to young musicians, these research findings indicate that the current provision of support may prove to be inadequate for promoting a popular music industry within Macau.



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***The Effectiveness of Self Management Program ‘Bipolar Beraksi’ in Decreasing the Frequency, Intensity or Duration of Bipolar Mood in People with Bipolar***

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**Abstract**

Bipolar Disorder is a kind of mood disorder, which contains of mania or hypomania episode, depressive episode, or the combination of both. Preliminary study on people with disorder shows that they need some improvement on self-illness management because frequency, intensity, and duration of this bipolar disorder seem to come often and disturbs people’s everyday activities. A program called ‘Bipolar Beraksi’ was designed to improve knowledge and skill to manage bipolar and hoped to lower the frequency, intensity, and duration of its occurrence. This research was conducted on 10 people with bipolar who were divided into two groups, experiment and control. This research employed quasi experiment with nonequivalent no-treatment control group time series. It was analyzed by using mixed-ANOVA and qualitative analysis. The result shows that the ‘Bipolar Beraksi’ program is able to lower people with bipolar mood duration and improves their skill as well as management for bipolar disorder.

Keywords: ‘Bipolar Beraksi’, bipolar disorder, people with bipolar, self-management.

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## Introduction

Today, the issue about mental health has been taking people attention besides the physical one. Research shows that, globally, around 450 million people suffer from mental illness (Williams, Chapman, & Lando, 2005) and one third of adult population suffers from this illness each year (Kessler & Ustun, 2008). Around 22% of adult population in the United States is diagnosed with one or more mental disorders in a certain year (Williams et. al, 2005), while Europe gets 27% (Wittchen et. al, 2011). Research also shows that the prevalence of mental disorder found in Indonesia is about 11.6% from the whole adult population on this country (Retnowati, 2011).

In the United States, around 29% of adult population suffers from anxiety disorder, 25% gets control-impulse disorder, 20% suffers from mood disorder, 15% suffers from drug abuse, and 46% suffers from the combination of all these illnesses (Williams et. al., 2005). Moreover, a research across Europe gives result that one out of four persons is reported to have disorder in DSM IV, which includes 13.9% mood disorder, 13.6% anxiety disorder, and 5.2% alcohol addict (Alonso et. al., 2004). Based on Basic Health Research conducted by the Ministry of Health in the last 2007, Indonesians are likely to have 11.60% possibilities to get mental emotional problem such as depression or anxiety (Iswanti, 2012).

Bipolar disorder, or well-known as manic-depressive, is a continuous and long-lasting mental disorder which affects both sufferers and their relative's lives (Goosens, Hartong, Knoppert-van Klein & Achterberg, 2008). This illness is categorized as one of mood disorders in which sufferer switches from mania or hypomania episode into depressive episode (APA, 1994).

Lots of researches show that bipolar disorder can be caused by various factors, such as: biological factor, genetic factor and psychosocial factor. In the biological factor, research found imbalance of monoamina neurotransmitter in the body such as serotonin, dopamine, and norepinephrine. Decreasing on those neurotransmitters will lead into depressive episode while increasing on dopamine will cause mania episode (Kaplan, Sadock, & Grebb, 1997). Another research found problem on limbic system, especially amigdala and hippocampus. Amigdala functions in cognitive-affective, such as unforgettable memories, while hippocampus functions in mood regulation and emotional behavior, it also has cognitive function such as memory (Wijeratne et. al, 2013). Several researches find that compared to normal person, people with disorder have bigger amigdala and hippocampus (Beyer & Krishnan, 2002; Javadopour, Malhi, Ivanovski, Chen, Wen, & Sachdev, 2010). Another research also says that the interaction between amigdala and prefrontal cortex (PFC) plays an important role in mood regulation. The position of PFC in human body is in the frontal lobe of the brain and functions to think abstractly, analyze, and regulate the behavior. Research shows that people with bipolar have smaller PFC rather than normal people (Biederman et. al, 2007). This is one of the reasons to explain the over reactive response from people with bipolar when they get happy or sad news.

In genetic factor, researches on relatives find that first-degree relative of bipolar I is likely 8 to 18 times higher than the one from control subjects to suffer from bipolar I and II, and up to 10 times more likely to suffer from major depressive disorder. Besides, results of other studies also show that first-degree relative of patients with

major depressive disorder is likely to 1.5 to 2.5 times greater than first-degree relative of control subjects to suffer from bipolar I disorder, and 2 to 3 times more likely to suffer from major depressive disorder. The fact proves that approximately 50% of all patients with bipolar I have at least one parent with a mood disorder, most often major depressive disorder. If one parent has this kind of disorder, there is 25% chance that his or her children will suffer from mood disorder, while if both parents suffer from bipolar I disorder there is 50% - 75% chance for children to suffer from mood disorder. Researches on adopted family state that the biological children of parents who suffer from this disorder remain at risk of suffering even if their foster family does not have this disorder (Kaplan, et. al., 1997).

In psychosocial factor, an event that causes stress more often precedes the first episode of a mood disorder. Stress that accompanies the first episode of this disorder causes long lasting change in brain biology. The result of this change puts a person at a higher risk to suffer from further episodes of mood disorder even with the absence of external stressors. Other researches also show that all human, despite any different personalities patterns they have, can and does lead to depression in an appropriate circumstance, but certain personalities like dependent, obsessive-compulsive, and hysterical may be at greater risk for depression than any other personality types (Kaplan, et. al., 1997).

All of those three factors can potentially interact each other to cause bipolar disorder, for example psychosocial and genetic factors can influence biological factor (eg, changing the concentration of certain neurotransmitter), the biological and psychosocial factors can also affect gene expression, while biological and genetic factors can influence one's response toward psychosocial stressors (Kaplan et. al., 1997).

Bipolar disorder is estimated to affect around 0.3% to 1.5% of world population (Weissman et.al, 1996). Approximately 1.2% of the total adult population in the United States (2.3 million Americans) has been diagnosed to have bipolar I. Bipolar spectrum, including bipolar II and cyclothymic disorder, increases the prevalence up to 5% of total population. Lewis (2004) estimates that only about one-third of people with bipolar gets proper diagnosis and even fewer gets real treatment. Error in diagnose done by some experts is commonly happen in healthcare setting. Research results reveal that 30% of patients who are firstly diagnosed with depression or anxiety are likely to have bipolar disorder. This situation occurs because those patients tend to look for help and treatment when depressive episode finally appear (Manning, 2003).

Bipolar disorder is associated with the highest percentage rate of suicide among other mental disorders. It is estimated that approximately 10% - 15% people with disorder will eventually commit suicide and at least 25% of people who committed suicide in the United States were having this disorder (Jamison, 2000). Pardede (2012) also states that approximately 69% attempted suicide cases in Medan were committed by people who had psychotic disorder or were diagnosed with mental health disorders such as major depression, anxiety, and bipolar disorder as the most dominating one. This bipolar disorder is also accused to be the ninth medical cause of world global disability (WHO, 2001).

People with bipolar often face lots of burdens in life, including social burden, the high divorce rate, and many other losses (Ostacher, 2005). This statement is proven by several studies which show that almost half of men and a quarter of women with bipolar disorder are reported to be unmarried and have never been in a long term relationship. In addition, most of them are also reported to have high level of education but low performance at work. 67% of these people with disorder are looking for work because they previously have lost their jobs (Mitchell, Ball, Best, Gould, Malhi, Riley, & Wilson, 2006).

Moreover, it is also reported that the estimation of recurrence is about 30% - 40% per year and then increases to 60% per two years and 70% per five years (Otto, Reilly-Harrington, & Sachs, 2003; Rouget & Aubry, 2007). This recurrence occurs because people with bipolar do not fully understand about their disorder and the following consequences if they do not obey the treatment (Keck, McElroy, Strakowski, Bourne, & West, 1997; Parikh, Kusumakar, Halsam, Matte, Sharma, & Yatham, 1997).

The result of the FGD preliminary study on those people with bipolar which was conducted on May 17<sup>th</sup>, 2014 in Jakarta shows that 5 of 6 people need to increase their knowledge and skill in order to manage their disorder, it is because bipolar disorder has interfered functions and roles in their daily life. Another need is a strategy to be financially independent. Five out of six people with bipolar stated that they had ever stopped taking medication, but up until now only 3 people still take medications recommended by psychiatrists. The other three said that they sometimes stopped consuming it due to reasons such as: forget, feeling fine, or bored. Two of three persons stated that they only took medicine when the mood has begun chaotic. Three of six admitted that they often had negative thought in their lives. Two persons had stated that the episode of depression was the most severe episode for them.

The preliminary study suggests that the urgent need that those people with bipolar need for now is to lower the bipolar mood (depression or mania / hypomania) by improving their management of bipolar disorder. Self-illness management is a strategy used by people with mental disorder to effectively manage their disorder. Mueser, et. al. (2002) identifies five interventions with empirical support to reduce the seriousness of this disorder (such as depression, bipolar, schizophrenia, schizoaffective, and personality disorder); they are: psycho-education, social skills training, relapse prevention planning, medication compliance improvement, and coping skill training to manage symptoms and stress. It is hoped that if people with disorder has a good self-illness management, he will be able to enter the recovery phase. Recovery can be said when a person with disorder has regained his or her consciousness and get back to society after he is able to manage his disorder.

Based on Mueser, et. al. (2002) and FDG results mentioned above, people with bipolar need to obtain a self-management program that contains of knowledge and skill improvement and plan to manage bipolar disorder. Skill improvement can be like something to do when bipolar mood appears, one of which is a skill to recognize and identify moods, triggers, and symptoms in bipolar episodes. The result of preliminary study states that depressive mood is the toughest mood above all, thus the skills to face this mood are badly needed. One of the ways is to lower the negative thoughts by changing them into the positive one.

Self-illness management is associated with self-management. Self-management is a core component of the health problems (Nuovo, 2007). Self-management can be defined as an individual's ability to manage the symptoms, treatment, physical consequences, social, and lifestyle when the disorder appears (Glasgow, Davis, Funnel, & Beck, 2003). Self-management can be categorized as methods, skills, and strategies for someone to effectively direct the activities to achieve certain goals by determining the purpose, plan, schedule, tasks, self-evaluation, self intervention, and self-development to affect cognitive, behavioral and emotional feelings of individuals in order to achieve the satisfaction of quality of life (Yeung, Feldman, & Fava, 2010).

The improvement on self-management is influenced by clinical psychology, particularly from cognitive-behavioral approach. The most important thing in self-management is how to change the way people think about themselves and their disorder and how to change behavior to be better because of their thought (Newman, Steed, & Mulligan, 2004). Self-management sees that there is a strong relationship between thoughts, behaviors and emotions where thoughts and emotions will trigger hormonal or chemical compounds in the body. These hormones or chemical compound will send message all over the body and affect its functions, for example: changes in blood pressure, breathing, concentration, cold sweat, tears and so on (Lorig, Holman, Sobel, Laurent, Gonzales, & Minor, 2006 ). Three components in the process of self-management are self-monitoring, self-evaluation, and self reinforcement which are applied gradually and continuously to improve the progress of targeted mind, behavior, and feelings (Kanfer & Karoly, 1972 Mezo & Francis, 2012). This technique is applied in order to increase the capacity of self-management (Yamashita & Okamura, 2011), so that individuals can be actively involved in managing their condition (Jones & Riazi, 2011).

Self-management program should be suitable with one's focus and concerns. For instance, self-management training conducted by Bilsker, Goldner, & Jones (2007) and Rokke, Tomhave & Jovic (2000) for depressive disorders were derived from cognitive-behavioral approaches that provided knowledge about depressive disorder as taught them the ability to solve the problems.

Self-illness management programs for people with disorder that have been prepared usually contains of people awareness about bipolar disorder, identification of the triggers of a new episode, the importance of treatment, mood changing solution, better self-control achievement, awareness about the side effects of treatment, the effect of coffee and nicotine, and the importance of routines and lifestyle (Colom and Vieta, 2006; Dashtbozorgi, Ghadirian, Khajeddin, and Karami, 2009; Fayyazi, Soltanifar, & Talaei, 2009).

The absence of a systematically arranged program to help people with bipolar in Indonesia in managing illness proves that this disorder has not yet become public attention like schizophrenia. In fact people with bipolar also need a self-management program to help them manage their disorder so that they can optimize their functions in daily life. One indicator to see that people with bipolar finally be able to manage their bipolar is by decrease in the frequency, intensity or duration of bipolar mood if it is re-emerged.

Bipolar mood has different interpretation with bipolar episode. Bipolar mood is interpreted as depressive, mania, or hypomania mood. Bipolar mood has the same symptoms of episodes with the bipolar episode, but it does not have the minimum criteria for the symptoms or duration. People with bipolar can be said to have a depressive mood or mania without any diagnosis of episodes. However, a person's mood can disturb their activities so it has to be gradually observed though there is no diagnosis of episodes. Meanwhile, the emergence of new episode in bipolar can be implied that the diagnoses have been made and the duration as well as the minimum criteria of the symptom have been met. The emergence of a bipolar episode is a complex interaction between biological vulnerability and psychological as well as social factors such as stressors, circadian rhythm disorder (rhythm disorder in the body that affects the behavior and patterns of major biological function), and lack of regularity of social routines (Reiser & Thompson, 2005). Johnson & Miller (1997) state that the episodes in bipolar can be controlled with medication, but recurrence is caused due to non-compliance to take the medication, although so stressors in life do have significant effect.

Johnson, Winters, Sandrow, Miller, Solomon, and Keitner (2000) state that the events in life that cause mania and depressive episodes are not the same for each people. Ellicot, Hammen, Gitlin, Brown & Jamison (1990) find that there is 4.53 time chances for people with bipolar to relapse if they tend to face negative events in their lives. Moreover, there is a notion said that traumatic memories can be a factor that contributes the emergence of episodes which can trigger the symptoms. When people with bipolar cannot face their stressors, it increases the possibilities for episodes to occur (Johnson & Miller, 1997). Therefore, recognizing the trigger of the emergence or recurrence of the episodes is very important in order to understand the pathological dynamics and doing intervention with a treatment plan that has been adapted for each individual (Miklowits & Alloy, 1999). Preventing the emergence of the episode can be done by improving the treatment compliance, managing the stressors, and maintaining the healthy lifestyle, for example maintaining the sleep pattern, exercising, not consuming caffeine and alcohol so that when people with bipolar started to feel the symptoms in bipolar, he or she can manage it for not growing more to a new episode.

The intensity of bipolar mood can be described as a state or level perceived by people with bipolar when the bipolar mood appears. The intensity is usually measured by using the range from 0 (normal) to 10 (very sad or very happy). The duration of bipolar mood is the length of time (usually in hours) when they feel their bipolar mood appears. The length of time when they feels bipolar mood or bipolar episode will vary for each person depending on the triggers. These triggers can be derived from biological vulnerability, psychological as well as social factors (eg, non-compliance in taking medication, sleep patterns, stressors, traumatic memories, negative thoughts, drug abuse, etc.). Solomon et. al. (2010) find that the average episode of mania or depressive faced by people with bipolar I is around 13 weeks, although very few people can face this range of average. Alcohol and drug abuse will extend the duration of the episode, while the treatment will shorten it.

'Bipolar Beraksi (or Bipolar in Action)' program is a self-management program which is structured to assist people with bipolar in managing their bipolar disorder. Based on *Kamus Besar Bahasa Indonesia* (KBBI), the word 'action' in the 'Bipolar in



Action' is defined as moving to do something or acting. The word 'action' was chosen in order to invite those people with bipolar to move, to do something, or to act as the effort for self-improvement to get better illness management. This program is modified from BEP-C program developed by the Department of Psychological Medicine and Clinical Neuroscience at the University of Cardiff. The program consists of 6 sessions which discuss knowledge and skills required to manage bipolar and make a plan to change and then implement it. Knowledge is an important element for people with bipolar to cooperate in the given intervention (Jurueña, 2012).

Session 1 is psycho-education about what bipolar disorder is. This session explains about bipolar disorder, various types of bipolar, various episodes in bipolar, causes, various treatments for people with bipolar, medication normally used to treat bipolar disorder, the travel of drug in the body, and the myths about bipolar disorder. In this session, it is hoped that people with disorder will understand the importance of medication in managing their bipolar and improve their ability to be compliance.

Session 2 is about skill training in overseeing the mood, identifying the triggers and early signs in a bipolar episode. In this session, people with bipolar are given the explanation about the importance of supervising the mood, identifying early signs and triggers of episodes that often cause symptoms to appear. In addition, people with bipolar also practice to monitor mood and identify the triggers as well as the early signs of episodes. In this session, it is hoped that people with bipolar can monitor the mood and understand triggers as well as early signs so that they can increase their self awareness.

Session 3 is about providing some strategies to be used when the symptoms of mania or hypomania appeared. Some of them are changing negative thoughts into positive, activating behavior, and the support from family and friends. In this session, it is hoped that people with bipolar can understand what to do when they start to feel the mood swings so they can prevent the emergence of a new episode or decrease the duration of the mood.

Session 4 is about providing the understanding for people with bipolar that healthy lifestyle (adequate sleep, caffeine limitation, regular exercise, and alcohol prevention) can effectively help to prevent the emergence of new episodes and reduce the duration of time while experiencing one of the episodes in bipolar. In this session those persons with bipolar make a plan to change and implemented in the next few weeks.

In session 5, those people with bipolar who have implemented their plans are being evaluated. This session also evaluates whether they have problems in carrying out their plans. They are motivated to try implementing their plan again. In session 6, people with bipolar who have implementing their plans are being evaluated again. This session also reevaluate whether they still have problems in carrying out the plans. They are again motivated to keep doing their plans to change that have been developed so that it eventually becomes a new habit. In this session, the program is terminated.

The materials of this program are modified materials of Beating Bipolar program which contains 5 essential components required for people with bipolar to manage their bipolar more effectively (Colom and Vieta, 2006), they are: (1) the awareness of

disorder, this is to improve insight, accept the disorders, and decrease the stigma and shame felt by the people with disorder, (2) improvement on medication adherence. Disobedience is usually caused due to misinformation, fear of side effects, and dependence, lack of knowledge of the disorder, and lack of proper treatment, (3) detection of early signs. Recognizing the early signs can help people with bipolar to prevent extreme episodes of bipolar that require hospitalization, (4) Abuse of drugs. Drug abuse can worsen bipolar condition, and (5) lifestyle. People with bipolar are educated on how to set the sleeping hours and daily functions, eat and take medication at the same time as well as stress management so that they can reduce the relapse.

This program gives opportunity to participants to practice learning by doing. Experiential learning is a model that allows the instruction to be given in multisensory and varied way (Siberman & Auerbach, 1998). Kolb (1984) defines experiential learning as a comprehensive integrative perspective on learning that combines experience, cognitive and behavioral. Kolb (1984) also states that there are four stages in learning cycle; they are: concrete experience, reflective observation, abstract conceptualization, and active experimentation. It can be started from any stage but it has to follow the cycle.

Concrete experience provides the basis for learning, in which participants learn from the experience that has been previously owned. Reflective observation is the stage where participants reflect on the experience that has been done before by understanding why and how they appear. This phase allows participants to observe and do self-reflection. Abstract conceptualization is the stage in which participants use the knowledge to understand the situation and problems. The next stage is active experiment in which participants know what to do and plan what to do and then behave in accordance with their knowledge.

In the sessions of 'Bipolar Beraksi' program which contains of four stages described above, participants are asked to actively involved in the activity, some materials and discussions are given in order to observe and reflect themselves so that participants can understand the situation and the problems better. It is hoped that participants are finally aware and can plan proper behavior and then act.

The purpose of this study was to test the effectiveness of self-management 'Bipolar Beraksi' program in reducing the frequency, intensity or duration of bipolar mood in people with bipolar. The hypothesis of this study was a self-management 'Bipolar Beraksi' program could lower the frequency, intensity or duration of bipolar mood.

## **METHODOLOGY**

### **Participants**

The subjects for this study were 10 ODB, 5 of them (3 women and 2 men) were in the experimental group while the other half (5 women) were put in the control group. Those subjects were the members of Bipolar Care Indonesia Community and had met all study criteria, such as: a) taking medicine, b) had not been hospitalized for bipolar disorder, at least for the last 1 month, c) sterile from drugs, at least for the last 6 months, d) low or moderate level on illness management and bipolar knowledge after filling management illness and recovery scale, and bipolar knowledge test, e) the level

of frequency, intensity and duration of the occurrence of bipolar mood were in a high or medium category after filling self-rating for 3 weeks, f) were not taking any psychological intervention by the time of the study, and g) were willing to join this study without coercion from any party from beginning to end.

### **Instruments**

This study used several instruments to measure the research variables, they are: Illness Management and Recovery Scale (Indonesian version), Bipolar Knowledge Test, 'Bipolar Beraksi' diary, and program evaluation sheet.

Illness Management and Recovery Scale (Indonesia version), it was a scale adapted from the Illness Management and Recovery Scale compiled by Mueser & Gingerich (2005). This scale was purposed to see whether there were any changes in self-management on the subject after attending the 'Bipolar Beraksi' program. The higher the score indicated the higher management the participants had in managing the illness. Scale adaptation was performed by using forward translation technique in which the measuring instruments were translated to the target language by a group of some professional translators then evaluated by the other groups (Jambleton, Crochet & Spielberger, 2005). The expert judgement was conducted by five psychologists and the scale test was conducted on 31 people and got the reliability coefficient of 0.909.

Bipolar knowledge test was used to measure the bipolar knowledge on each participant. This Bipolar Knowledge Test was developed by the researcher from the material module 'Bipolar Beraksi' which contained of 10 multiple-choice questions. In addition, there is 'Bipolar Beraksi' diary that had been compiled by the researcher. 'Bipolar Beraksi' diary was used to determine the frequency, intensity, and duration of bipolar mood and also to know the routines, thoughts and feelings experienced by participants every day. Participants began to fill the self-rating frequency, intensity and duration for 3 weeks before 'Bipolar Beraksi' program began to 3 weeks after this program ended. Another instrument is a program evaluation sheet that was used to obtain the evaluation of the program that had been implemented.

### **Research Design**

This study was a quasi experiment designed in non-equivalent no-treatment control group time series (Shadish, Cook & Campbell, 2002). The measurement was repeated 21 times before and after the intervention. This study used two groups: the experimental group and the control group.

### **Research Implementation**

There are 2 phase in research implementation: preparation phase and research phase. In the preparation phase, research permission and preliminary study permission in Bipolar Care Indonesia community were conducted by the researcher in January - April 2014. Preliminary study was done to see what the people with bipolar needed before determining research theme. Preliminary study in the form of FGD on the people with disorder was conducted on May 17, 2014.

The researcher modified the 'Bipolar Beraksi' program from Bipolar Education Programme-Cymru (BEP-C), which was developed by the Department of Psychological Medicine and Clinical Neuroscience of University of Cardiff. The program was adapted to the needs of people with bipolar in Bipolar Care Indonesia Community and referred to the theory of cognitive-behavioral approach. Module validation was done by professional judgment and used Aiken *v*. Professional judgment was aimed to see the suitability of the material in the module with the purpose of research. Aiken *v* calculation obtained point between 0.8 - 0.9, which meant that the module had been proper to use.

'Bipolar Beraksi' program was given by one facilitator. The chosen facilitator had the following characteristics: 1) psychologist, 2) have previously experienced providing programs to the community, 3) understand, interested and concerned with bipolar. Facilitator debriefing was done repeatedly, it was to ensure that the facilitators truly understood about bipolar disorder and what they should deliver during the program. Debriefing facilitators was conducted on June 21<sup>st</sup>, July 1<sup>st</sup>, July 15<sup>th</sup>, August 17<sup>th</sup> and 26<sup>th</sup> & 28<sup>th</sup> September 2014.

In the research phase, opening session of the 'Bipolar Beraksi' program was conducted on September 6<sup>th</sup>, 2014. This initial session was for the participant registration in which the researcher explained the purpose, the benefits of the research, the sessions in this program, and the rights and obligations of the participants. People with bipolar who agreed to be the participants of study then re-elected by the researcher in accordance with the requirements of research before completing the informed consent. The opening session was extended from September 6<sup>th</sup> to 8<sup>th</sup>, 2014 because of the number of people registered.

'Bipolar Beraksi' program was begun on October 4<sup>th</sup> to October 26<sup>th</sup>, 2014. The first session was begun on October 4<sup>th</sup>, 2014, the second session was on October 5<sup>th</sup>, 2014, the third session was on October 11<sup>th</sup>, 2014, the fourth session was started on October 12<sup>th</sup>, 2014, the fifth session was on 18<sup>th</sup> October 2014 and the last session was on October 26<sup>th</sup>, 2014. The diaries contained of the frequency, intensity, and duration of bipolar mood was returned to the researcher at the closing session, on November 16<sup>th</sup>, 2014. The implementation of the intervention took place in Cikini, Central Jakarta.

## **Result**

### **Quantitative Analysis**

This study was conducted to see if there were any differences in frequency, intensity, or duration of bipolar mood after given the treatment in the experimental group and the control group. Requirements analysis test used to determine the use of research data analysis were normality and homogeneity tests. If the data is normal and homogenous, parametric analysis (in this case, mixed-anova) will be used to analyze the data, but if its not normal and homogenous, non-parametric analysis (in this case, mann whitney) will be used to analyze the data.

Normality test was done to see if empirical data distribution followed the theoretical normal data distribution. This research used Kolmogorof-Smirnov techniques to test the normality of distribution. The rules used to determine normal data distribution if

the value of  $p > 0.05$  then the data distribution was said to be normal, meanwhile if  $p < 0.05$  then the distribution was not normal.

Homogeneity test was done to see if the variance of data was homogeneous or not. This study use Levene test to test homogeneity. Rules are used to determine the homogeneity if the value of  $p > 0.05$  then the variance of data is said to be homogeneous, but if  $p < 0.05$  then the variance of data is not homogeneous.

The results for the normality test of frequency, intensity and duration of data distribution by using Kolmogorov-Smirnov showed  $p > 0.05$ , so it could be said that the distribution of the data frequency, intensity and duration was normally distributed. Moreover, the results of homogeneity test on data variance for frequency, intensity and duration with Levene test showed that  $p > 0.05$ , it could be concluded that the variance of data frequency, intensity and duration was homogeneous.

Besides, it was obtained that the data distribution from the illness management and recovery scale as well as the knowledge test of bipolar disorder with Kolmogorov-Smirnov had  $p > 0.05$  so it could be said that they were normally distributed. Then, the results of homogeneity test on data variance of illness management and recovery scale as well as knowledge test of bipolar disorder with Levene test showed that  $p > 0.05$  so that the data variance of illness management and recovery scale as well as the knowledge test of bipolar disorder was homogeneous.

The results of data analysis with mixed-ANOVA emphasizes the hypothesis that there was decrease in the duration of bipolar mood in the experimental group after taking 'Bipolar Berakssi' program as compared to the control one.

Table 1.  
Mixed-ANOVA analysis on duration of bipolar mood

Group	Mean		Mean Difference (pretest – posttest)	Time Interaction *Group	
	Pretest	Post test		F	Sig.
Experiment	232.4	166.0	66.4	12.357	.008
Control	261.4	303.6	-42.2		

The above table shows that the point of duration interaction is significant ( $p < 0.05$ ) with  $F = 12.357$ . In addition, Table 1 also shows that there is a decrease in the mean pretest ( $\bar{x} = 232.4$ ) and posttest ( $\bar{x} = 166.0$ ) in the experimental group, while the control group has increased the mean pretest ( $\bar{x} = 261.4$ ) and posttest ( $\bar{x} = 303.6$ ). This result shows that the 'Bipolar Berakssi' program can reduce the duration of bipolar mood on experimental group participants. However, the result on frequency and intensity of bipolar mood of experimental group who join 'Bipolar Berakssi' program is not significant. It was found that the frequency of interaction ( $F = .582$ ,  $p > 0.05$ ) and intensity ( $F = 4666$ ,  $p > 0.05$ ) were not significant.

The following table shows the average of mood duration change based on pretest and posttest (calculated within 3 weeks, 1 week, and 1 day) toward the experiment and control groups.

Table 2.  
Average of mood duration change based on time

Time	Experimental Group		Control Group	
	Pretest (hr)	Posttest (hr)	Pretest (hr)	Posttest (hr)
3 weeks	232.4	166.0	261.4	303.6
1 week	77.4	55.3	87.1	101.2
1 day	11.0	7.9	12.4	14.4

It can be seen that the average mood duration on bipolar group when pretest was done is 232,4 hours/3 weeks or 77,4 hours/week and 11 hours/day. After joining the 'Bipolar Beraksi' program, the average mood duration on experimental group decreases for about 166 hours/3 weeks or 55,3 hours/week or 7,9 hours/ day. Meanwhile, the average mood duration on control group when the pretest was done is 261.4 hours/3 weeks or 87,1 hours/week or 12.4 hours/day while it tends to increase in posttest which is about 303.6 hours/3 weeks or 101.2 hours/week or 14.4 hours/day.

Besides, the result analysis of manipulation check on illness management and recovery scale as well as bipolar disorder knowledge test are presented in Table 3 below:

Table 3.  
Mixed-ANOVA analysis on bipolar knowledge test and illness management & recovery

Manipulation Check	Group	Mean		Mean difference (pretest – posttest)	Time interaction *Group	
		Pretest	Posttest		F	Sig.
Bipolar Knowledge Test	Experiment	6.6	8.8	- 2.2	39.200	.000
	Control	5.2	4.6	.6		
Illness Management & Recovery	Experiment	47.6	52.2	- 4.6	10.796	.011
	Control	39.6	39.6	.000		

Table 3 shows that the value of bipolar knowledge interaction is significant ( $p < 0.05$ ) with  $F = 39,200$ . In addition, this table also shows an increase in the mean pretest ( $\bar{x} = 6.6$ ) and posttest ( $\bar{x} = 8.8$ ) in the experimental group, while in the control group it is a decrease in the mean pretest ( $\bar{x} = 5.2$ ) and posttest ( $\bar{x} = 4.6$ ). This result shows that the 'Bipolar Beraksi' program is able increase the bipolar knowledge on the participants in the experimental group.

Table 3 also shows that the value of the interaction on illness management and recovery is significant ( $p < 0.05$ ) with  $F = 10\ 796$ . In addition, it implies an increase in the mean pretest ( $\bar{x} = 47.6$ ) and posttest ( $\bar{x} = 52.2$ ) in the experimental group, while the control group does not get any change between pretest and posttest mean ( $\bar{x} = 39.6$ ). This result shows that the 'Bipolar Beraksi' program can improve the illness management of the participants in experimental group.

Moreover, there is partial eta squared of the duration of bipolar mood, bipolar knowledge test and management and recovery of bipolar disorder as it is written in the table below:

Table 4.

Partial eta squared of the duration of bipolar mood, bipolar knowledge test and illness management and recovery of bipolar disorder

Instruments	Wilks' Lambda
	Partial Eta Squared
Mood bipolar duration	.536
Bipolar Knowledge Test	.858
Illness Management and Recovery	.730

From Table 4, it is known that the 'Bipolar Beraksi' program can explain 53.6% of decreasing variance in the duration of bipolar mood. In addition, this program can also explain 85.8% of increasing variance of bipolar knowledge and 73% increasing variance in self illness management.

### Qualitative Analysis

Qualitative results noted that after the 'Bipolar Beraksi' program was done, 4 participants from the experimental group were more regular in taking the medication as directed by a psychiatrist. One participant from the experimental group, initial KM, decides not to take medication prescribed by a psychiatrist but she took traditional medicine to increase serotonin in the body.

All participants from the experimental group were also known to go bed earlier after the 'Bipolar Beraksi' program was done (maximum before 11 pm), reduced the consumption of caffeine, and avoided drinking coffee at night. They also did exercise more often. DF wrote that he did jogging with his dog every afternoon and it made him healthier. DA joined the cycling community, beside more frequent exercise, this community made him got more friends at his age so that DA could get much support from others. DL chose for taking the time to exercise at home such as: went up and down on stairs.

In the control group, there was no difference between before and after the 'Bipolar Beraksi' program was implemented. All participants took the medication irregularly. They had the same reasons, such as: lazy to take medication, forgot, or took medication only if they felt the mood decreased. Participants in this group thought that drug only functioned as healer or mood stabilizer but not for prevention. Besides, some of them still consumed caffeine and alcohol at night.

The difference between these two groups is that the participants in the experimental group had a better self-management than the control group. It can be seen that the participants from experimental group were more regular to take medications, earlier to sleep, doing exercise, and limited to drink caffeine. In addition, these participants were better in recognizing their mood by observing their own behavior. All participants in the experimental group activated their behavior when they felt the mood decreased. IG and KM often looked for positive thoughts when negative

thoughts arose before doing behavioral activation. DF was always trying to find a positive thought when thinking negatively about college or when he wishes were not fulfilled by his family and took few times to relax.

DF, DL, KM and IG kept doing activities that made them uncomfortable because of their negative thoughts (such as: go to work or go to college), although they admitted that they needed some time to really convince themselves to do so. They admitted that they got difficulty to start and there was always a reason for not doing so. KM provided rewards for herself because she managed to stop skipping college as she used to do.

## **DISCUSSION**

The results show that self-management 'Bipolar Beraksi' program can reduce the duration of bipolar mood on people with bipolar. The significant decreased duration of bipolar mood in the experimental group reinforces previous studies that self-management program and psycho-education can reduce the occurrence of bipolar mood, accelerate the duration of bipolar mood if appear, improve self satisfaction and function in life (Murray, Suto, Hole, Hale, Amari & Michalak, 2010; Russell & Browne, 2005; Colom et al, 2003; Colom et al, 2009).

However, the results on the frequency and intensity do not change significantly, this may be due to several things: (1) lack of time for participants to get familiar with the plan of change. The 'Bipolar Beraksi' program is a self-management program for people with bipolar so they can manage their disorder by changing bad habits (lifestyle or mindset) to be better, so that they can feel that they are taking control in their own life. Research on habits formation states that in average a person can form a new habit in 66 days through the process of repetition, even so this study also states that other difficult habits take much longer time (Lally, Van-Jaarsveld, Potts, & Wardle, 2009). In some studies, it is found that there is a decrease in the appearance of a bipolar episode after the follow-up after 10 months (Simpson et al, 2009) and after 5 years later (Colom et al, 2009). (2) Lally et al (2009) states that there is group of people that get difficulty in forming a new habit or not being able at all (habit-resistant).

The factors that influence the effectiveness of the 'Bipolar Beraksi' program are the compliance and activeness of the participants in following the whole series of sessions (Kazantzis, Deane, & Ronan, 2000; Fennel & Teasdale, 1987). This indicates their readiness and willingness to change (Fennel & Teasdale, 1987; Burns & Spangler, 2000; Newman, Steed, & Mulligan, 2004).

Compliance to treatment is one way to manage bipolar disorder. After the program was done, there was increased compliance to treatment of 4 participants from the experimental group, although there was one subject, KM, who still did not take the medicine recommended by psychiatrist, she took traditional medicine functioned to increase serotonin or dopamine in the body. This was due to the lack of support from family. KM admitted although he could execute the other changes such as: bed early, delimiting caffeine, and exercise more often, but she felt that the traditional medicine only helped in the depressive mood, but not much helped in hypomania mood.



It is relevant with the statement that the decrease in serotonin and dopamine can cause depressive mood, while an increase in serotonin and dopamine can cause mania or hypomania (Kaplan, Sadock & Grebb, 1997). In addition, the lack of scientific data on the use of traditional medicine put its safety in question (Dennehy, Gonzalez, & Suppes, 2004; Andreescu, Mulsant, & Emanuel, 2008). However, the findings prove that about 64% people with diagnosed bipolar disorder do not inform their use of traditional medicine to the psychiatrists or other medical experts (Keaton, Lamkin, Cassidy, Meyer, Ignacio, Aulakh, Blow, & Sajatovic, 2009), so it is recommended to not take traditional medicine independently or combine them with medical drugs from a psychiatrist (Lake, 2013). However, KM is the perfect example to prove that when people with bipolar can manage their disorder well, their duration when the bipolar mood occurs can decrease without consuming any medication. This case indicates that if people with bipolar can manage their disorder well by repeating exercise (such as: self monitoring, behavior activation, etc) and making it into habit so it can gradually lower the medication dosage and finally stop, depends on the severity of their disorder.

Another finding from this study is that increasing in self-management of participants in experimental group is also accompanied with the increasing of self-control that make the subjects feel powerful over their life. This conclusion is derived from the diaries of participants from the control group. DF, IG, DL, and KM wrote that they were able to keep running activity despite their decreasing mood and negative thoughts in their minds. DF could also hold his desire to directly break or ask to buy new stuff and took time to calm himself by avoiding the trigger (like avoiding the items he wanted to buy or parents who hurt him for a while). This is related with the statement that the strategy in self-management will increase self-control so that individual can control the behavior and achieve the desired target (Kazdin, 1989).

One of the weaknesses of this study are the lack of time for discussion, this is because some of the research subjects came late at the agreed time that the research was begun 30 minutes later than planned. No follow-up is also one of the weaknesses of the study because the researcher cannot see the long-term effects after the study was completed. In addition, the subjects of this study were limited to the Bipolar Care Indonesia community members so that information regarding to this study only within the scope of Bipolar Care Indonesia and not disseminated to the wider community.

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***The Effect of Level of Parenting Stress towards Mother-Child Interaction Quality:  
A Study on Mothers with Toddler from Poverty Family***

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**Abstract**

This research was conducted to depict the effect of level of parenting stress towards mother-child interaction quality in mothers with toddler from poverty family. This research used the mixed method design for collecting data. Quantitative method used in order to analyze the effect of level of parenting stress towards mother-child interaction quality. Level of parenting stress was measured by Parenting Stress Index-Short Form (PSI-SF) and mother-child interaction quality was measured by Parenting Interaction with Children: Checklist of Observations Linked to Outcomes (PICCOLO). Qualitative method executed by observation and interview in order to obtain the comprehensive overview about mother-child behavior. The participants of this research are 71 pairs of mothers and children age 12 – 36 months who came from poverty families. The main results of this research showed that level of parenting stress did not significantly affect the quality of mother-child interaction ( $F = 0.518$ ,  $p > 0,05$ , insignificant at L.o.S 0,05) because of several factors.

Keyword: Parenting stress level, mother-child interaction quality, poverty family, toddler.

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## Introduction

Back in 2014, Indonesia experienced an increase in poverty. Based on data from Statistics Indonesia (*Badan Pusat Statistik* or *BPS*), in 2014, the percentage of poor population in Indonesia increased by 11.37% which was marked by the increased numbers of poor population from 28,070,000 people to 28,280,010 people (bps.go.id). Being in poverty causes someone's life to be nonoptimal. Inconstant incomes, inability to fulfill needs, living in unsupportive area, no health guarantee, low education, and the increase of violent and criminal acts are impacts of poverty (Jefriyando, 2014). Not only adults, but children from poor family backgrounds also have nonoptimal lives. Children in poverty conditions tend to undergo late cognitive, affective, and psychomotor developments. That is caused by their parents' limitations in fulfilling living costs and children's educations, also not well enough parenting, like lack of stimulation and rough treatments by parents (pspk.ugm.ac.id).

American Academy of Child and Adolescent Psychiatry (2012) states that poverty does indeed have effects towards parenting of children. Poverty causes the emergence of various challenges for parents to be able to take care of their children with full attention. Those challenges are also related with limitations in accessing resources, such as nutrition, health service, and security, and inability in fulfilling basic needs, educational cost, healthcare, and recreation (Halpern, dalam Davis, 2003; McClelland, dalam Ahmed, 2005; Santrock, 2013).

In Indonesia, parents also experience challenges in taking care of children. That condition causes parents to care less about the development of children by showing behaviors that are not sensitive and responsive enough towards children. Thus children from poor families are faced with a few risks, like bad health and late development, due to lack of response, sensitivity, and also stimulation from parents (Noordianti, Hakimi, & Wibowo, 2011).

World Health Organization or WHO (2004) explains that parents' ignorance towards children and lack of close relationship with children happen because poor parents tend to have been exposed to things that cause them stress. Katz, Corylon, La Placha, and Hunter (2007) prove this through their statement which says that someone who already has a child and situated in poverty is actually prone to mental health disturbance like high level of stress or even depression.

Poor parents' life experience which is full of pressure and difficult situation happens because they cannot provide the needs of their children and themselves. This causes them to feel they are unable to fulfill their parental role. Thus parents are very vulnerable towards stress which involves parenting children. This has negative impacts which is the increase of parenting stress level as the stress experienced by parents builds up (McClelland, in Ahmed, 2005; Helkenn, 2007). On that note, Lavee, Sharlin, and Katz (in DeGenova, 2008) mention that parents' income becomes one of the factors that affect the level of parenting stress, in which lower income correlates with higher parenting stress level.

McCubbin and Figley (in Shaffer, 2012) explain that parenting stress may result in negative impacts towards both parent and child. Abidin (in Shaffer, 2012) says high level of parenting stress may cause the emergence of problem on parent's health and



the lack of recognition and self-esteem in their roles as a parent. Next, parenting stress also has negative impacts towards children which are the low quality of children's language, children's showing inattentive, impulsive, and aggressive behaviors, rebellions against parents, criminality, difficulty in adapting to social environment, and the lack of physical and mental health (Morgan, Robinson, and Aldridge, 2002; Ayoub, in Nix, 2013).

Besides the effects that parenting stress has towards parents and children, it is also found that parenting stress has effects towards parenting and the interaction between parents and children (Abidin, 1990). A mother with high level of stress or undergoing depression tends to lose the joy of parenting a child. This will interfere in positive mother-child interaction. She will also show less happy feelings, often too busy with herself, careless towards children, behave insensitively, have authoritative manners, and behave roughly (NICHD, 1999; Gelfrand & Teti; Rade-Yarrow, Waxler, Richardson, Susman, & Martinez, in Davis, 2003; Haskett, Ahern, Ward, & Allaire, 2006).

The research of McKay, Pickens, and Stewart (1996) proves that parents with high level of stress in parenting usually show low level of interaction between parents and children. Parenting stress is very much connected with the characteristics of negative parenting like the lack of affectionate reciprocal relationship between mother and child, unhealthy parenting style, and the application of rough discipline. In the end, these behaviors cause a lack of interaction between mother and child or even a bad one (Haskett, Ahern, Ward, & Allaire, 2006).

Parent-child interaction is a reciprocal process when both parties sensitively observe and adjust according to the behaviors of the other party (Davis, 2003). WHO (2004) also states that the attitude of parents in feeding, taking care of children while sick, giving stimulation for children development, and fulfilling children's needs according to what the children require are parts of parent-child interactions. Those are examples of parents' sensitive and responsive behaviors that are connected with the health and development of children, especially children of young age.

Parents' behaviors that are sensitive and responsive can give positive experience to children. In this case, Taulbut and Walsh (2013) say that the experiences which children get when they are young have long term effects towards their physical and mental health and also towards children's well-being, which can be carried until adolescence or even adulthood. The National Institute of Child Health and Human Development or NICHD (1999) says that the critical development period is started from the first until the third year of children's lives. In this period, children also show some significant cognitive progresses (Santrock, 2013). However, the development of toddler in Indonesia is not maximal.

Based on research conducted by the United Nations International Children's Emergency Fund (UNICEF) Indonesia (2012), it is found that one of three children that is younger than five years old experiences obstacles in development and growth. This is due to a few factors. One of which is poverty and inadequate parenting. Syaodih (2006) says that once a child has a problem in his or her development, that problem in one area will spread to other development areas.

Children's development can be optimal with the presence of parents, like by having good quality parent-child interaction. This is proven by researches of McAnarney, Lawrence, Ricciuti, Polley, and Szilagyi (1986) also Nix (2013) which report that the quality of parent-child interaction actually affects children's cognitive development. NICHD (1999) adds that parent-child interaction is the most important indicator to see the development of children. This is supported by the finding of Nix which says that parent-child interaction positively correlates with children's language development. Due to presence of stimulation provision, the children's language development gets better, and children can think logically.

Roggman et al. (2013) say that autonomy support which is given by parents is important in supporting the cognitive development of toddlers who are active in exploring their worlds. Siu and Yuen (2010) also say that parent-child interaction positively correlates with children's social behaviors. Parents' affection may decrease tantrum on children and make children become more discipline and able to well regulate themselves. Parents' response is also important so the children can maintain positive relationships with other people, maintain communication, and be more self-confident.

On the note of parenting and interaction between parent and child, Duvall and Miller (1987) say that a mother holds the most important role in both domestic work and parenting children. A mother who takes good care of her children can affect their successful developments when they become adults. Thus mother-child interaction is considered to be important for the development of children. Based on some of the explanations above, it can be said that mother-child interaction is very much needed since one year old.

The importance of this mother-child interaction has made some researchers turn it into their research topic. One of the research groups which discuss this is McKay, Picken, and Stewart (1996) who research about parenting stress and parent-child interaction. They use the Marschak Interaction Method (MIM) as a measuring device for parent-child interaction quality. The result of that research shows that parents with high level of parenting stress have low quality of interaction with child.

Although there is an earlier research using MIM, this time the researchers are interested in researching about the effects of parenting stress level towards mother-child interaction using the measuring device of Parenting Interaction with Children: Checklist of Observations Linked to Outcomes (PICCOLO). PICCOLO measures interactions between parent and child aged toddler. It has four domains which are affection, responsiveness or parents' behaviors which response to and sensitive with the needs and intererests of children, encouragement or autonomy support which is given by parents to children, and teaching or giving stimulation to children. There are a few separated researches that explain the contributions that high parenting stress level has towards things that are related to each mother-child interaction domains.

Abidin (in McKelvey et al. 2009) says that high scores in P-CDI subscale within PSI-SF measuring device may indicate the minimum amount of affectionate interaction. In addition, mothers with high level of stress tend to be careless and behave insensitively toward their children more often (Rade-Yarrow, Waxler, Richardson, Susman, & Martinez, in Davis, 2003). Coon (2007), also says that parents with high level of

parenting stress may cause disorder towards the cognitive development of children. That can happen because they do not give enough support to the children in positive parent-child interaction. Insensitive behavior, minimum amount of affection, and minimum support towards children can be connected with the affection, responsiveness, and encouragement domain at the PICCOLO measuring device.

Other than the effects that parenting stress level has towards mother-child interaction domain, poverty also contributes towards the quality domain of teaching. Bornstein and Bradley (2003) also explain that children from poor families often times experience academic failures because their parents rarely give them stimulation. One indicator of poverty is the low level of education. When the parents' education level is low, most of them do not consider children's education to be important. This causes them to be reluctant to give stimulation and education to their children. Because of this, the researchers are more interested in using PICCOLO measuring device which has affection, responsiveness, encouragement, and teaching domain. Thus the researchers can know the quality of poor parents in giving their children affection, the type of response mothers give to children, the giving of autonomy towards children, and how mothers stimulate children.

## **Theoretical Review**

### Parenting Stress

Parenting stress is a psychological phenomenon which appears when parenting obligation is considered to exceed someone's resources and abilities. This happens when the caregiver finds it hard to fulfill his/her role as a parent (Abidin, 1990). This means the stress that is experienced in parenting stress is not all the stress which is experienced in life but only the stress which is experienced when a parent is parenting (Shaffer, 2012).

Parenting stress can be measured by using three subscales. The first is Parental Distress (PD) which includes the assessment of how far a parent experiences stress in exercising his/her role as a parent and the assessment of a parent's competency in parenting a child. The second is Parent-Child Dysfunctional Interaction (P-CDI) which assesses how far a parent believes that his/her child does not fulfill his/her expectations and that the interaction between them is not satisfying. Last but not least is Difficult Child (DC) which assesses a parent's understanding of a child's characteristics (Haskett, Ahern, Ward, & Allaire, 2006).

### Mother-Child Interaction

Davis (2003) states that the interaction between mother and child is a reciprocal process when both sides sensitively observe and adjust themselves according to the personal behaviors of the other parties. There are four domains which can measure the quality of mother-child interactions. They are affection, responsiveness or the behavior of responding sensitively to the child's needs and interests, encouragement or the support of autonomy, and teaching or the giving of stimulation.

## **Research Methods**

The method of data collection is mix method which means collecting data quantitatively and qualitatively. The used methods of data analyzing are descriptive statistics and linear regression. The research instruments which are used in this research are:

### Measuring Tool of Parenting Stress Level

The measuring tool of parenting stress level that is used in this research is Parenting Stress Index-Short Form (PSI-SF) which is a self-report inventory and consists of 36 items. PSI-SF has three subscales which are Parent Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC).

### Measuring Tool of Mother-Child Interaction Quality

The measuring tool of mother-child quality that the researchers used is Parenting Interaction with Children: Checklist of Observation Linked to Outcomes (PICCOLO). It is an observation measuring device that consists of 29 items over four domains (affection, responsiveness, encouragement, and teaching).

## **Research Results**

### Characteristics of Research Subject

The participants of this research are 71 pairs of mother and child age *toddler* who are of poor family background. The following is the general statistics of the research participants:

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Mother's Age</b>		
Teens	10	14
Young adult	54	76
Middle age	7	10
<b>Mother's Occupation</b>		
Housewife	63	89
Working	8	11
<b>Mother's Last Education</b>		
Elementary school	27	38
Junior high school	19	27
Senior high school or equivalent	21	30
Uneducated or did not graduate elementary school	4	5
<b>Mother's Marital Status</b>		
Married	70	99
Divorced or widowed	1	1
<b>Child's Sex</b>		
Male	42	59
Female	29	41
<b>Child's Age</b>		
12 – 23 months old	38	54
24 – 36 months old	33	46
<b>Child's Birth Sequence</b>		
An only child	25	35
Oldest	1	1
Youngest	45	64

Table 1. Demographic Data of Mother and Child (N=71)

According to table 1, the majority of mother participants are mothers of young age (76%), work as a housewife (89%), last educated at elementary school level (38%), and married (99%). On the other hand, the majority of child participants are male (59%), age 12 – 23 months old (54%), and the youngest child (64%).

### Main Results and Additional Research

In this research, the researchers try to find out the research participants' level of parenting stress and quality of mother-child interaction. It is found that the majority of participants have normal level of parenting stress (67,6%) and low quality of mother-child interaction (64,8%).

On the calculation of parenting stress level's effect towards mother-child interaction, it is found that the level of parenting stress does not have enough significant prove towards mother-child interaction ( $F=0.518$ ,  $p>0.05$ ). The effect of parenting stress is only 0.7% towards the quality of mother-child interaction, whereas the other 99.3% is affected by other variables. Because parenting stress level does not have enough significant prove to be affecting mother-child interaction, the researchers did not continue the analysis to which parenting stress level has the biggest impact to the quality of mother-child interaction.

As an additional analysis, the researchers also tested the quality of each mother-child domains on participants who have high level of parenting stress.

	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Affection</b>	N = 4 % = 40	N = 6 % = 60	N = 0 % = 0
<b>Responsiveness</b>	N = 3 % = 30	N = 4 % = 40	N = 3 % = 30
<b>Encouragement</b>	N = 6 % = 60	N = 4 % = 40	N = 0 % = 0
<b>Teaching</b>	N = 10 % = 100	N = 0 % = 0	N = 0 % = 0

Table 2. Quality of Mother-Child Interaction Domains on Participants Who Have High Parenting Stress Level (N=10)

According to the table above, participants with high level of parenting stress have medium quality of affection and responsiveness. In addition, participants with high level of parenting stress have low quality of encouragement and teaching.

### Conclusions

1. Both level of parenting stress and parenting stress domains have no effect towards mother-child interaction.
2. Most participants with high level of parenting stress have medium quality of affection and responsiveness and low quality of encouragement and teaching.

### Discussion

Unlike the previous research, the results of this research show that the level of parenting stress does not have enough prove that significantly affects either the quality of mother-child interaction or each mother-child interaction domains. The researchers assume this happens due to several factors. In this research, it is found that the majority of participants have normal level of parenting stress (67.6%). However, this result contradicts the result of the previous research which states that mothers of poor family are supposed to have high level of parenting stress, and in the end, it will affect the quality of mother-child interaction. The researchers assume that this can happen due to various causes.

According to Wodtke, Elwert, and Harding (2012), the level of parenting stress can be affected by social support. Unlike in Western lifestyle, Indonesian people tend to live collectively, so it is very possible that participants in this research have high social supports. It can be seen in this research through the confessions given by almost all participants. They state that they are very close to their husband and family. Mother participants also feel the closest neighbours can help them in taking care of their children. Thus the participants do have a lot of social supports.

Morgan, Robinson, and Aldridge (2002) also say that parent's characteristics, such as must be married, are some of the predictors of parenting stress level. In this research, 99% of mother participants are married. This certainly affects the parenting stress level because usually it is found that single mother tends to have higher level of

parenting stress compared to married ones. Other than marital status, some parenting stress researchers say that family's income does not have any effect towards level of parenting stress (Morgan, Robinson, & Aldridge, 2002). Baker (in Morgan, Robinson, & Aldridge, 2002) also suspects that parenting stress level will increase as the received income does. Although parents who have high income do not have financial problems, many of them do not know how to fulfill the needs of children and how to raise children properly.

The age of mother is suspected to contribute towards the normality of parenting stress level that most participants of this research have. As it can be seen, most mother participants of this research are mothers in the young adult category. Chang and Fine (2007) state that teenage mothers tend not to be mature and ready enough to care for a child. This causes teenage mothers to be more likely to have many difficulties in taking care of a child and to have high level of parenting stress.

Other than parents' characteristics, Morgan, Robinson, and Aldridge (2002) say the child's characteristics are also some of the predictors of parenting stress level. One of these is birth sequence. Morgan, Robinson, and Aldridge (2002) say parenting stress level of a mother can be affected if her child is the oldest child. However, in this research, only 33% of child participants are the oldest child in the family, while the rest is the youngest child. This is suspected to have caused the parenting stress level of most mother participants to be normal. Because they have experience of taking care of a child before, they do not find many difficulties in taking care of the child participants.

One of the other possible factors is faking. What can prove the researchers's suspicion about faking is the mother participants' statements when answering the questionnaire. Many of them said, "Taking care of a child is hard," and, "This child is very naughty and fussy." On the other hand, they tend to response with "Disagree" when filling out no. 20 of the questionnaire (My child is not able to do as much as I expected). Even when answering no. 33 of PSI-SF questionnaire (Think carefully and count the number of things which your child does that bother you.), the mother participants tend to response with only "1-3x" or "4-5x". These responses show that mother participants do not feel disturbed by their children's behaviors as the frequency of a child disturbing his/her mother is considered to be low.

The researchers also assume that the stresses which experienced by mother participants are not only stress from taking care of a child, but there are also other factors that cause them. Ahmed (2005) says that someone who lives in poverty often experiences stress in life because he/she finds it hard to fulfill life needs, struggles to pay for needs, like food, shelter, and health, and struggles in balancing life demands. Poor families are also at high risk to experience high level of life stress due to having low level of self-esteem, having feelings of inferiority, and feeling different compared to other people who have enough in fulfilling their needs (Ridge, 2009; Batty & Flint, 2010).

The researchers also feel there is a contradiction between the results of this research with the ones from other researches and literature sources. The research conducted by Davis (2003) in Australia states that mothers with high level of parenting stress are supposed to have low level of affection domain which is marked by the lack of desire

to meet face-to-face with the child, being less gentle, and having no desire to be with the child. It is different with this research where there are only 40% of mother participants with high level of stress who have low level of affection. The researchers realise that there is a difference between Western and Indonesian culture which is the fact that most mother participants are physically very close with their children, and that the quantity of face-to-face meeting between mother and child is quite abundant. Based on the researchers's observations, even though the way mother participants talk is full of stresses, and they often let the children go wherever they want, they still look physically close by hugging, kissing, and carrying their children. That is believed to be a reason why they have high quality at the affection domain.

The researchers also find that the score of mother-child interaction is classified as low. As much as 64.8% of mother and child participants have low score of mother-child interaction. The researchers suspect that the quality of mother-child interaction tends to be low because of a few things. The first is mothers' low education level which causes them to have minimum knowledge about children development. The second is environmental factors such as neighbourhood that pushes mothers to inappropriately take care of their children.

In this research, it can also be seen that all mother participants with high level of parenting stress have low quality in encouragement and teaching. Coon (2007) explains that parents who have high level of parenting stress can cause disturbance towards children's cognitive development. This can happen because of the minimal support which is given by parents to children in positive parents-children interaction. Additionally, Coon also states that parents with high level of parenting stress will act passive towards children. Most mother participants do indeed seem to let their children play without guiding them to do anything. In this research, mother participants with high level of parenting stress also seem to bearly offer any help or give advices to children when they are playing.

### **Suggestions**

There are some methodological suggestions that will be useful for the next researchs. Those suggestions are the following:

1. The next research can compare the effect of parenting stress level towards mother - child interaction quality in high & low income parents
2. The next research can compare mother - child interaction quality in well & less educated mothers
3. The next research can measure the effect of life stress towards mother - child interaction
4. On the PSI-SF quetionnaire or at the interviews, an additional question is needed which is, "Is there anything that causes stress other than taking care of a child?"



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***Self Concept in Adolescent Lesbian Living with HIV:  
A case Study***

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The Asian Conference on Psychology and the Behavioral Sciences 2016  
Official Conference Proceedings

**Abstract**

This research objective are studying self-concept, lifestyles, parenting styles and social support in 4 cases study of adolescent lesbians who are HIV infected from maternal, clinical and antiretroviral follow up at Srinagarind Hospital, Khon Kaen University, Khon Kaen province, Thailand. A self-concept questionnaire was developed from Anchalee Soodsane 's self-concept questionnaire, and a parenting style questionnaire was developed from Pannawadee Chantharach's parenting style questionnaire, and other data was collected by in-depth interviews and used Atlas.ti computer program for arrange data for analysis.

Research result found in a part of life style, positive self-actualizations related to relationship and supportive. Negative self-actualization was found related to HIV infected status but in health responsibility that found not awareness in healthy behavioral and poorly stress management skill. Parenting styles perception was democratic parenting style but some point not consistent with their perception. For social support found the important emotion support and information social support especially counselling was from friends and their fans supportive. Appraisal and instrumental social support was most found in their family. But about HIV and illness issues if not found in their family or medical team there are not found in other group. Self-Concept in academic value, almost were in positive direction. Self- Concept in interpersonal relationship that found almost of them has difficulties in establishing relationships with others. And emotional adjustment self-concept, positive emotional related good relationship with friends and their fan. Negative emotional that related with HIV infected status. Self-image that also found related to self-concept.

Keywords: Self-concept, adolescent lesbian, adolescent with HIV, case study

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## Introduction

In 2014 Thailand had 34,000 adolescents with HIV/AIDS and 13,600 cases were maternal infections (Bureau of epidemiology, 2014). Even today, there is no way to eradicate HIV away from human body but there is an effective antiretroviral and standard treatment that developed system to care HIV people. As a result, HIV can control and not has opportunistic disease however they have to have good adherence. Now HIV infected is not terminal illness like in the past but it is called chronic illness. (Center for Disease Control and Prevention : CDC, 2015)

Children who infected HIV grow up to be a adolescents. They may have a difficult with chronic illness and in addition they will have difficulties to adapt themselves to be adolescents. (Sucha Chanem, 1986 cited in Neungruthai Khorphonklange,2009) In this period they try to find self-identity including sex role. (Sharinporn Machara,2009). Particularly in the way of sexuality or sexual orientation, may affect the self-concept because self-concept is thinking, feeling and attitudes toward themselves in various fields. It is related between persons and environment; they have a perception to compare themselves with another and get information and feedback from the others. And they also want to know the others' feeling about themselves. (Kantha Umbhud, 2007, Thaweesitha Jaihaw, 2007) Factors are influence directly to self-concept, that are self- image, health status, intellectual, family's influences, parenting style, status and role in family, life style. (Pannee Jenchit, 1983 cited in Pimol Thanma, 2002). Thus, it can be seen caused and the ways to make a better self-concept that are role and influence of family and society around adolescent. Family and society like a supportive network around adolescents. After review literature, met family, parenting style, social support in family and society around adolescent related to direction of their self-concept (Murphy DA, Moscicki AB, Vermund SH, & Muenz LR., 2000) thus, if an individual's self-concept is different likely due to factors related such as family, parenting style and social support.

The in-depth study on self-concept in adolescent lesbians living with HIV and explore related factors, first is life style explain with a self-actualization, health responsibility, exercise, nutrition, interpersonal relationship and stress management. Second factor is parenting style and last factors to explore social support. This study will make guideline and promote essential social support and will develop counseling in these adolescents to have more positive self- concept. In this study, the definition of "adolescents" is people which age between 18-24 years old and they are maternal HIV infection. The definition of "lesbians" is women who have sex at birth as female but love and/ or sexual preferences with the same sex; in this study has two words in a part of lesbian that are "**Tomboy**". Its definition is a word that calls a female who has characteristics and behaviors like a boy or a man and love or attracted to a girl or a woman like their girlfriend. And "**Lady**" its definition is a word that calls a female who has characteristics and behaviors like normally women or girl but love or attracted to a tomboy like their boyfriend.

## Research Objectives

To study self-concept, lifestyles, parenting styles and social support in adolescent lesbians who are HIV infected from maternal.

## Participant

Four cases study of adolescent lesbians who are HIV infected from maternal and their range age between 18-24 years old, clinical and antiretroviral (ARV) follow up at Srinagarind Hospital, Khon Kaen University, Khon Kaen province, Thailand. Participant was enrolled by proposing if meet all criteria and has inform consent to be case study.

## Research Methodology

This research was mixed method; research tools were in-depth interview and two questionnaires were used to collected data. Questionnaire developed from Pannawadee Chantharach's parenting styles and Anchalee Soodsane's self-concept questionnaires. It was used to collected data in first time of interview. After that there had an appointment for 30-40 minutes in-depth interview a time, average appointment was 3-5 times a case study until data was saturated. Data was collected between December 2015 and February 2016 then collected data was content analysis and used Atlas.ti to arrange all data. Data from questionnaire was analyses by frequency in whole and in each item that related points to data from in-depth interview.

## Research Result

### Case study No.1

**Demographic data:** she is 22 years old. Study in high vocational. Her parent was passed away by AIDS since she was 8 years old after that her relative send her to the government orphanage. At the orphanage, she has treated HIV with ARV and good adherence. In last year, she was discharged from the orphanage. She is supported by Non-Governmental-Organization (NGO) about living expense, she was treat by nurse staff who is supported from that NGO.

She defines herself as a tomboy; her girlfriend stays at the same orphanage and college. They have relationship like lover more than 5 years ago.

About treatment information, she is transferring to infectious adult clinic, healthy, good adherence and not has opportunistic disease. Her current ARV is Tenofovir, Lamivudine and Efavarencz but about white blood cell (CD4) and viral load (VL) level cannot remember. She has taken ARV more than 13 years ago.

### Life Style:

**Self-actualization** It related two dominants, first related her acceptance in HIV, after she had changed her attitude toward HIV due to she had connected with HIV peer group and there were discussed, sharing and supported together. As a result, she has positive attitude toward herself. Second relation is supportive from other; not only scholarship from sponsor but she also got helping from friends, girlfriend and medical team about to be counselor. Moreover her friends treat like she is value friend. A negative self-actualization related to a dominant and other minor. A dominant point is about infected status. She concerns about relationship with friends and other if disclose. She gains the esteem of peers in the group. Other concerns are about self-image; her height. She thinks that is the result of an infection and ARV. And worthless feeling related to the not attention from her relatives as expected.

**Health Responsibility** found a healthy behavior is associated with good understanding in HIV infected and the concern in illness which may make people know that they are infected with HIV. As a result, she has a strictly good behavior in health care.

**Personal Relationship** the data found that friends and girl friend relationship are the most important impact to healthy behavior, by providing the instrument support, information and emotional support. And she has a good relationship with the medical team who providing instrument and information supportive. Simultaneously, the HIV peer network is associated a part in changing the perspective on the illness and more positive attitude toward HIV.

**Stress management** found three dominant problems that met in daily life. Those are HIV related problem, relationship problem and insufficient expense. The handle on the problem has two forms, first trying to prevent problem situation, second trying to change perspective about problem.

### **Parenting Style**

The scores from the questionnaires showed the most score parenting style was democratic, second was authoritarian and the last was uninvolved parenting style. That consistent with results from in-depth interview. After she admitted to the orphanage since nine years old therefore she stayed in there over 10 years. At the first, she was treated with ARV and HIV status was disclose so she was take care in closely by orphanage staff; during take ARV in everyday after took it she got a reward, As a result, she did not feel bad for taking ARV. Moreover it not only caring in her health, they like be a counselor when she had any problems. She usually had opportunities to join in the activities in the orphanage. Her closely care giver took care her warmly and reasonable.

### **Social support**

In this case study, it is from four principles as friends, girlfriend, medical team and NGO from abroad. Friends like be an emotional and an appraisal social support and could found that in girlfriend and included HIV issue and illness. Information and instrumental social support like supported by medical team. Scholarship and daily expense are supported by NGO. In her daily life, friends are the most important and have influence to this case study.

### **Self-Concept**

For first, self-concept in academic value in this case study, it likes to be positive direction. She thinks she has a moderate intelligence, an appreciated writing and reading skill but weakly in calculated. In a part of learning behavioural she likes to learn by demonstrated in each step, likes to fixation and creative. Then, self-concept of interpersonal relationship also to be positive direction. She has good relationship with friends, has a closely friend group and to be loved and friendly. Girlfriends relationship is good, a mutual understanding and can encourage when has any problems. But she often unconvinced because of fearing that girlfriend turn away to love a better men. This case study has positive attitude toward working with other, a



personality trait like assertive, socialize and friendly. And last about emotional adjustment self –concept that found all emotional depend on relationship with friends and girlfriend. Not confident feeling in relationship makes a negative mood. HIV issue might relate boring and anxiety emotional and it is a principle cause of unconvinced. Although until now she never discloses her infected status to friends.

## Case study No.2

**Demographic data:** she is 21 years old. Her parent passed away since she was only 2 years old after that her relative send her to the government orphanage with her older sister who was only 5 years old. At the orphanage, she has treated HIV with ARV. After she finished primary school, she has psoriasis symptoms. It often appeared so she was drop out from school then studied in informal education and occupational training about sewing and cooking. She moved out from the orphanage with her older sister when she was 18 years old. She had worked with friends near the orphanage but when symptom of psoriasis shown she had been laid off. So she needs to stay with her older sister. And find a job again, now she works in convenient store near Bangkok and her salary is 8,000 THB.

She defines herself as a tomboy; her currently girlfriend like tomboy too but just has relationship about one month.

About treatment information, she is transferring to adult infectious clinic, healthy, good adherence and not has opportunistic disease. Not has psoriasis symptom. Her current ARV is Zilavir and Efavarenz but about CD4 and viral load level cannot remember. She has taken ARV more than 15 years ago.

## Life Style:

**Self-actualization** that found she has negative self –actualization there were data that support more than positive self –actualization. It is her social support, there is only from her older sister. Other supportive is from her friend from the same orphanage and same work place. The supported data with negative self-actualization like when she has neither any trouble in daily life nor one to be beside. She concerns about illness especially psoriasis symptom, self-image that she though it is a cause of short relationship with her girlfriends and it also affected when she finding any job. Moreover, her problem arrangement that often not success to solve might be a cause of negative self-actualization such as when she had insufficiency expense in each month she likes to starve.

**Health Responsibility** in this case that found only good adherence, it is good behavioral for healthy but other behavioral in daily life like to be not, such as one meal a day in regularly, starve due to insufficiency money, regularly sleep late, drink alcohol and do not exercise. Although now her health is good but she stills nervous in psoriasis symptom that cannot forecast.

**Stress Management** found two principle problems, first that is insufficiency expense. Second is anxiety in self-image because of her height only 138 centimeter and usually affected to relationship with her girlfriends and works application. In the part of

problem solving, about insufficiency she has chosen starve. Self-image problem just only has consulted her older sister; she thinks this problem cannot change anything just only release negative feeling when met disappoints situation.

**Interpersonal Relationship** in her daily life, it related with family and workplace. She is supported by only two groups. According to her positive self-actualization due to usually has sister supportive in her daily life such as to be consultant and took care when she was sick. Relationship with colleague, she was trained about job and when she will go to a hospital for get antiretroviral, they usually loan for transportation expense and medicine expense.

### **Parenting Style**

As questionnaire score that found the most score parenting style was democratic, second was an authoritarian and last was uninvolved parenting style. But the score that found from questionnaire like similar, that consistent with results from the in-depth interview, she admitted to the orphanage since two years old therefore she stayed in there over 15 years. She was changed a care giver many times and they have an individual characteristic therefore they have different parenting styles. Moreover she likes to talk with her sister since when they stay together in the orphanage, not trust in a caregiver and friends.

### **Social support**

In her daily life found most of them were related family members such as emotional, appraisal and information social support but after evaluated of family supportive found it was less and inefficient, this may be the reason for lack skills in problem-solving strategies in life and negative attitude toward herself. Social support from colleague is only instrumental supportive, they usually loan for transportation expense and medicine expense.

### **Self-Concept**

As analysis data that found academic value self-concept is negative direction, data from questionnaire and in-depth interview was compatibility. She thinks she has a low intelligence, an unappreciated writing and reading skill and weakly in calculated. She likes to learn about occupational training not academic. Interpersonal relationship self-concept, she has not good relationship and does not has a closely friend. Former girlfriends' relationship was good when communicated via social network like LINE chat programme or FACEBOOK programme but when they met her in realistic, relationship had changed and break contact in finally. She was encouraged only from family member when has any problems. About working with other, she thinks she can work but not like friendly with colleague; her personality trait like introvert and less social skill. And last about emotional adjustment self –concept that found positive emotional depend on relationship with girlfriend, like to be protector and leader that fulfill her self-esteem. Negative emotional; boring and anxiety emotional that related insufficiency expense and psoriasis illness. In this case HIV is not affected to her emotional, she not disclos infected status anyway.

### Case study No.3

#### Demographic data

She is 21 years old. Her parent passed away when she was primary school age, after that she has stayed with grandmother. Her grandmother was a Thai dessert street vender, low income and insufficiency expense in each month but her aunt has supported until she finished primary school, she and her grandmother moved to stay with her aunt in downtown. She was treated by ARV as result her health was good, no had an opportunistic disease, she could studied until finish high school and now she is fourth year university student. She often joined in activities that organized by HIV peer network, she had been elected to lead the youth camp, art camp in regional and national but after she enrolled to be a university student, she quits from all activities. She was supported by her aunt 2,000 THB and loan from student loan fund 2,200 THB a month. In case if not insufficiency she could ask her aunt more. There are five family members, her aunt family's income more than 50,000 THB a month.

She defines herself as a lady. Now she has a boyfriend and their relationship more than one year. But she not discloses her infectious status. Her boyfriend is an office staff. Now they are stay together at her aunt's house.

About treatment information, she is transferring to adult infectious clinic, but she never go to adult infectious clinic after has transferred more than 1 year. Her health still good but has Pruritic Papular Eruption (PPE), not has serious opportunistic disease. Her current ARV is Tenofovir, Lamivudine and Lopinavir. Her CD4 and viral load level cannot remember. She has taken ARV more than 13 years ago.

#### Life style:

**Self-actualization** a positive self-actualization related to family supportive, she has opportunity to attend school until study in the university, living with independently not authoritarian treat like other teenage. About HIV issue, she think it is fortunately that the disease not rapidly progress if take ARV in good. It will be healthy like a normal person. Now her perception about health it is still good although she not goes to hospital for follow up her clinical more than 1 year ago and last for positive self-actualization, she satisfied in currently love status, be loved and treated by her boyfriend although she thinks love among lesbian is not long period. For negative self-actualization related to HIV issue and ARV, she does not want to disclose her infected status because people around her not understanding and acceptable to HIV and infected people. Moreover she has fear and anxiety about her illness but also bored to usually take ARV. She has negative attitude toward ARV due to its side effect. Illness made her likes different from friend, she likes to be normally life same as her friends, does not considerate with illness thus she tried to be passive personality among friends, tried to avoid conflict at all, accept things as friends are and avoid upsetting others.

**Health Responsibility** as data was analysed that found causes of irresponsible behavioural related to her health perception, she thought her health still good and disease not rapidly progress and no symptoms thus she attempts to refused her reality

illness status by laboratory; CD4 count and Viral load level and not aware to health promote and symptomatic prevention.

**Stress Management** found her stress strategies like to be escaped a problem, not faced with a stressful situation, usually release pressure by diary. And in her daily life, stress caused by relationship with friends and her grandmother but a principle caused by HIV and infected status disclosure.

### **Parenting Style**

As data from questionnaire that found the most score is democratic, second was uninvolved and the last was an authoritarian parenting style. The score that found from questionnaire that consistent with results from in-depth interview, her aunts treated her like their daughter, accepted her opinion and also her sex orientation. They gave opportunities to do in favorite things, about studying she could choose by herself and to be a counselor if she has any problems.

### **Social Support**

In this case study was derived from three main groups; family members, friends and boyfriend but a dominant social support in all part is family supportive that are emotional, instrumental and information support. Friends supportive are appraisal support and assisted her study but social support that found not related to health promote and take ARV with continuity.

### **Self-Concept**

First, self-concept in academic value in this case study that data found her attitude toward her academic value in positive direction, related to data from questionnaire. Then, interpersonal relationship self-concept, analysis data that found she think, she has good relationship with friends because of her personality trait like assertive, socialize and friendly so easy to make relationship with other but not deep relationship related to data from questionnaire. And last about emotional adjustment self –concept that found negative direction toward emotional adjustment, because of happiness in life is unclear but attitude toward negative mood found related with illness, ARV taking which has been unable to arrange the problem and negative feelings as they occur.

### **Case study No.4**

She is 21 years old. Her parent passed away by AIDS when she is a toddler after that she stayed with adopted father; he is her uncle. Now she did not attending school after she finish high school she could enroll to be a government university student but when she is studying in 2<sup>nd</sup> year she dropped out, although she tried to be a private university student she also dropped out.

Presently, she has online business with her boyfriend; cosmetic and fashion cloth on internet that has income about 3,000 -5,000 THB and she usually gets monthly expense from her adopted father 8,000 THB; he has owner business.

Her family is 6 members; adopted father, aunt, aunt in law and their 2 twin daughter and her adopted mother works at the United States.

She defines herself as a lady. Now she has a boyfriend and stays together in downtown private apartment did not stay at her adopted father house like a past because she likes to be independent. Her boyfriend is similar age; known through social media Tom Lady Online chat program and their relationship is more than 2 year, but she not discloses her infectious status.

About treatment information, she is transferring to adult infectious clinic, but she never go to adult infectious clinic after has transferred more than 1 year. Her health still good but has Pruritic Papular Eruption (PPE), not has serious opportunistic disease. Her current antiretroviral (ARV) is Tenofovir, Lamivudine and Lopinavir and about CD4 count and viral load level cannot remember. She has taken ARV more than 13 years ago.

## Life Style

**Self-Actualization** as data was analyzed that found self-actualization in both positive and negative, first for positive self-actualization related to independent life; now she does not stays with family so not limited teenage life by strictly family rule and she thinks she can take care herself. And negative self-actualization that related about she stills remain depend monthly expense from her adopted father she likes to has a full time job, and negative self-actualization also related to HIV and infected status disclosure including her illness is a chronic disease; uncured. She should take a medicine in everyday but frustrated that she cannot so concern about AIDS symptom that might be appear and finally other will know about her illness.

**Responsibility Health** in this case study as data was analysed that not found any behavioural which promote healthy like as regularly exercise, eating every meals and nutritious foods and behavioral for treatment like regularly take medicine and clinical follow up also not found. It may be caused by several factors such as her perception in health is still good, lack of strong social support because of now she stays with her boyfriend similar age; might not awareness in health promoting.

**Personal Relationship** that found relationship that happens in her daily life are friends relationship and boyfriend relationship like information, encourage and counseling supportive but excluded HIV and illness issue but family relationship that found only instrumental supportive more than counseling and encourage.

**Stress Management** that found three main problems that happen in her daily life, there are HIV and illness issue, boyfriend relationship and concern about job; likes to have a full time job. Problem strategies are two patterns; first she likes to try solving a problem by herself such as trial and error method, second pattern if a difficulty problems she likes to ignore until had a new idea.

**Parenting Style** as parenting style questionnaire score that found the most score is democratic, second was an authoritarian and the last was uninvolved parenting style. The score that found from questionnaire is related to data from the in-depth interview, after she moved from uncle house and stayed with adopted father, parenting style

changed from authoritarian style to be democratic style; from family strictly rules to be flexible rules when stayed with her adopted father felt not frustrated and she had more freedom to decision about her life otherwise she is supported in expense and other instrumental.

But after she moved to stays with her boyfriend, relationship with family not closely like a past, there are only budget supportive. And a point that not like democratic parenting style is attending time might not enough for attending and counselling, most of daily life she usually stays with her aunt family; they are characteristics like authoritarian, strictly rules and not accepted her opinion.

### **Social Support**

That found social support in her daily life is her boyfriend supportive, she has emotional, information and instrumental supportive but excluded HIV and illness issue. Social support from a few closely friends including a friend who HIV infected that found emotional and information supportive. Family relationship that found emotional, appraisal and instrumental supportive but not found information supportive like counselling and encourage. Although she has sufficiency in the living factors but social support that found not related to health promote and take ARV with continuity.

### **Self-Concept**

Self-concept in part of academic value that found trend to positive direction, her perception in intelligence is moderate level. She has ability about art but weakness in calculated. Self-Concept in a part of personal relationship, her perception like a negative direction, she has introvert personality so hardly and take a time to make a new relationship but she likes to make it via social network as a Chat program more than in a normally society. Self –Concept in a part of emotional adjustment that found illness issue affected to negative emotion and moreover related to anxiety emotion about relationship with boyfriends and friends if they know about infected status, for positive emotion related to good relationship with boyfriend and supportive from family.

### **Conclusion**

As content analysis that from in-depth interview data, frequency score counting in whole questionnaire and each item analysis from parenting style questionnaire and self-concept questionnaire. That found life style is comprised self- actualization, health responsibility, exercise, nutrition, interpersonal relationship and stress management. In four cases study found positive self-actualization caused was related with relationship and supportive between their fan, friends, family and a medical team. A negative self-actualization was found related with HIV infected status concerns; not want to disclose. In addition, issues related self-actualization is the problems in daily life and not success solving. In health responsibility that found only one case has healthy behavioral and good adherence to taking antiretroviral but in three cases found they are not aware in good behavioral for healthy. Its cause may from case no.1, she has a scholarship and she is closely monitored by staff.

Parent Style: As analyzed data from questionnaire that found four cases parenting styles perception is democratic but when considered and analyzed from in-depth interview data found some point not related to their perception they lack support in the consultation for information on the decision. And in addition, a not clearance rules in the family that found some case study could go to pub or bar in lately night; not necessary to ask for permission and they also could drink alcohol.

For social support that found the important emotion support is supportive from friends and their fan; accepted in their individual that made they feel valuable, received love, trust and care. Appraisal social support, most found in their family. They can get feedback in both positive and negative data for evaluated themselves. Instrumental social support was found from family and some friends. Information social support especially counselling was found from friends and fan, only one case usually consulted her sister. HIV and illness issues if not found in their family or medical team there are not found in other group.

Self-Concept in academic value, almost are in positive direction; they could study in the university and they knew about their ability and aptitude. Self-Concept in interpersonal relationship that found almost of them have there are difficulties in establishing relationships with others due to introvert personality and not trust other. Emotional adjustment self-concept that found all, there are positive emotional related good relationship with friends and their fan. Otherwise it related with supportive from other. There are negative emotional that related HIV infected status not like to disclose. They always concern about their illness symptoms other might know their infected. Self-image that also found related to self-concept; their physical had effected by HIV and serious illness when they were young. Now their body weight and height lower than Thai standard. Self-image also related to relationship problem.

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***Comparison of Dietary Behaviors and Acculturation of  
Korean International and Japanese Students in Japan***

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**Abstract**

This study compared the awareness and health behavior of Korean foreign nationals with those of the Japanese, focusing on differences in the food cultures. The study also explored the social function of food in different cultures, particularly the link between cross-cultural adjustment and food. Semi-structured interviews were conducted with 13 Japanese students and 14 international students from Korea, which has a food culture and dietary behaviors that are similar to those of Japan. Participants were asked about changes in their lives, with a focus on their diet in Japan, and the social aspect of eating. The results showed that both groups were aware of the importance of a healthy diet, although the difficulty in this regard was implementation of healthy eating behaviors. Moreover, due to busy lifestyles, both subgroups self-catered to a lesser extent, compared to their initial intentions. They also ate out and purchased convenient foods more. Korean students enjoyed Japanese food, and increased their intake of sweet foods and alcohol. They also associated food with socializing, unlike Japanese students. This study identified a need for Japanese food education to be provided to foreign nationals, to enhance their dietary habits and, ultimately, cross-cultural adjustment.

Keywords: Cross-cultural dietary education, international Korean students in Japan, Japanese university students, dietary behavior, health consciousness

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## Introduction

The number of international students who are staying in Japan is reported as 208,379 (JASSO, 2015). Although health is an important key to success when studying abroad, Japanese universities show little interest in educating foreign students about food (Takahama & Tanaka, 2013). Food is considered a personal habit, while education on language and professional knowledge is diligently provided. However, in health psychology, eating behavior is known to have a significant impact on health, as a basic habit, and on health promotion; it is also a primary target of health promotion measures and contributes towards lifestyle-related diseases (Shimai, 1997). Dietary education is widely provided to the Japanese population, to promote healthy eating habits. However, this is not done for international students, due to the lack of cross-cultural elements in the dietary education that would specifically target them.

In a foreign country with a different environment, it is difficult for one to maintain the diet from one's home country; one is then also faced with the issue of cultural adjustment to the food. However, adaptation does not always lead to good health; there are negative aspects to cross-cultural adaptation. For example, a survey on Thai people who stayed in the United States (US) showed that they acquired American eating habits, which differed from those of their home country; American food had increased fat content, dairy products, and snacks (Sukalakamala & Brittin, 2006). Arab students also adopted the eating habits of, and led an American lifestyle, ultimately gaining body weight (Brittin & Obeidat, 2011).

In contrast, a Japanese diet is regarded as healthy worldwide; Japanese food is also registered as a World Heritage Site. If foreign students familiarize themselves with Japanese food, studying in Japan could provide an opportunity for them to receive food education. In addition to the physiological function of nutrition, food has a social function. "Co-eating" behavior is effective for enhancing cohesion in a given population (Nakajima & Imada, 1996). Food may be useful in facilitating adjustment, demonstrating the link between food and cross-cultural adjustment. Food from different cultures is an interesting phenomenon in health and cross-cultural psychology. International students' dietary habits and the extent to which they eat Japanese food remain unknown. It is also unclear as to whether Japanese food education informs their eating habits. There is a need for empirical research on the eating habits of foreign nationals and the problems associated with food in Japan. Understanding these would enable the provision of an appropriate food education program for each country. International students would also be able to adjust their diets through education, to enhance their own health. Previous exploratory research has shown that Chinese students in Japan account for 90% of international students in Japan (Hatanaka & Tanaka, 2015). These students are less likely to take up eating behavior aimed at maintaining their health, and factors such as stress and being busy tend to disrupt their diets. Based on these findings, the introduction of health education was deemed necessary, so as to raise awareness regarding the function and management of food. This study focused on Korean students, whose population comes second only to Chinese students in Japan. South Korea is culturally similar to Japan; however, there is heterogeneity in food culture.

According to Tominaga, Taguchi, and Cao (2007), both South Korean and Japanese college students who are aware of the benefits of a healthy diet show good mental health. The mental health of Japanese students who downplay eating habits was found to be lower than that of other participants (Takano, Nonaka, Takano, Kojima, & Sato, 2009). Evidently, there is an association between health and students' food choices. Food forms part of student life in Japan; if it is one of the problems that are experienced by international students, then it is

important to gain a thorough understanding thereof in this context. It is also important to understand the characteristics of Japanese students' diet. This study aimed to explore the various functions of food, with specific reference to the food consumed by Korean and Japanese students. Given the success of food education, as provided to Japanese students, food education provision to foreign Korean students, so as to promote healthy eating behavior, would in turn promote both their health and cross-cultural adjustment in Japan.

## Method

### Participants

The sample comprised 14 Korean students (7 men, 7 women), with a mean age of 23.4 years ( $SD = 2.64$ ), attending X University in medium-sized regional cities of Japan. Their mean duration of residence in Japan was 17 months ( $SD = 17.77$ ; range: 3–60 months). They lived in dormitories or boarding houses, and their level of proficiency in Japanese exceeded the conversational level.

Thirteen (7 men, 6 women) Japanese students, also from X university, also participated in the study. The mean age was 20.86 years ( $SD = 1.55$ ). They had all experienced a stay in a boarding house. The average stay there was 28 months ( $SD = 19.01$ ; range: 4–67 months). The survey period was June to December, in 2012 for Korean students, and June 2012 to January 2013, for Japanese students. The interviews took place in quiet rooms in public facilities.

### Procedures

Semi-structured interviews spanning approximately one hour were conducted. Following their consent, interviews with the participants were audio-recorded, and subsequently transcribed. Korean participants were asked about changes in their physical states, body weight in relation to meals or food behavior, body weight, meals, and lifestyles after their arrival in Japan. Japanese students were asked about these factors following their admission to university. Participants were specifically asked what they ate, what they preferred, difficulties, what had changed, and their thoughts in this regard.

### Results

Below is a summary of the narratives. Underlined, are the points of interest related to ① health awareness and concerns regarding health, ② awareness of unhealthy behaviors, ③ and the social function of food. Interesting narratives are also included below.

#### Korean Students (Age in Years, Gender)

KA (22, M): Typically self-caters, ① but worries too much about health, which is stressful. When busy; for example, with tests, ② his diet is disrupted. ③ Sometimes “I eat while socializing with friends.” ① “If I really like the food, I continue eating *ramen* for four days.” ② “(When stressed) I drink alcohol.”

KB (29, M): Loves cooking and self-caters. ③ Likes socializing over Korean food. ① He successfully lost weight, but relapsed and will try again. ① “The best dietary habit for me is to cook something that I like or enjoy.” ① “I eat meat often, but am trying to balance my diet.” ③ “There are opportunities to learn Japanese, and I meet people there. Then, we talk and go for a drink together.”

KC (25, F): ③ Eats food with a friend in dormitory or with Japanese friends. Thinks that Japanese food is delicious, ② but increased the intake of sweet desserts, and gained weight. ① Went on a diet. ② “I ate four ice-creams in one day, and two cakes or so. I eat candy or dessert every day.” “Everyone became fat; the girls, mostly, because of liquor or desserts.”

KD (19, F): Thinks that the eating environment is important. ② Stays alone and overcomes the loneliness by eating desserts. Low intake of meat and vegetables. Not good at cooking. “After admission, I ate to eliminate stress.”

KE (25, M): Used to self-cater, but not now, because ② of being currently very busy with a part-time job and studies. ③ Likes socializing and cooking, and invites friends and they eat together. ② “My diet becomes imbalanced and irregular; I feel bad about my physical state.” ① “I eat vegetables and breakfast.”

KF (21, M): No self-catering in the dormitory. Self-catered in the beginning, after moving to the boarding house, but ② it is too inconvenient. ① Worries about own health. ③ I do not eat breakfast because no one takes care of me.

KG (24, F): Wants to do self-catering, but is too busy with school. ② No alternative to eating out. ② Likes fruit, but it is too expensive in Japan. ③ Likes to party with Koreans and enjoys it, but ② gets too drunk.

KH (21, F): Eating out is expensive, so, ① self-caters more. ② However, enjoys Japanese dessert and drinking Japanese alcohol. ② Enjoys Japanese food, rather than looking after own health. ① “Eating out is much more expensive than in South Korea, so, I try to eat at home.” ② “I really love delicious Japanese sake.”

KI (25, M): Not confident about cooking, and eats out. ② Favorite food is meat and fried foods. ② Saves money, and it is difficult to eat vegetables and fruits. There is no delivery service in the middle of the night and not enough spicy foods in Japan.

KJ (27, F): Loves cooking and preparing Japanese food. Since Japan’s summer is hot, she no longer cooks. ① Eats a lot of favorite vegetables. ② Alcohol intake increased.

KK (21, F): Likes to cook, but is currently busy studying. ② Eats out often. She knows it is not proper nutrition for the body. ② Eats cake and bread often, instead of meals. “I drink more than I did in South Korea.” ③ “(In Korea) Everyone eats together; it is a common practice.” “Here, we eat together, sometimes with foreigners, such as the Taiwanese.”

KL (24, F): Saves money and ① always self-caters. ① Cares about nutrition, but ends up cooking the same thing every day. ② Consumes packaged and sterilized food often. ③ Has many Japanese friends and prepares food for them. ① “I am mindful of food and exercise.” “I worry when I get sick in a foreign country.” ③ “I made a *kimuchi-chijimi* for my friends, and I become happy when everyone says it is delicious.”

KM (24, M): Immediately after coming to Japan, ate out every day, but now, ① tries to self-cater, which is cheaper. Not good at cooking, so, ② eats the same food often. Since living in a foreign country, ① does not eat food products that are bad for own body, such as instant foods.

KN (21, M): Does not know how to cook, but ① cares about nutrition. ② Eats out for half of the meals. ③ Eats what roommate cooked or dines on *kimchi*, which had been sent from the home country. “(In the home country) I did not cook often, so, I had no confidence at all.”

### Japanese Students

JA (21, F): When she has free time, she does self-catering, but eats out often. ② When busy, she sometimes does not eat. She feels terrible about her nutrition; she makes adjustments, but the food is dependent on her financial situation. ② If she does not have an appetite, she eats sweet dessert, instead. ② There was a time when she consumed too much of sweet food because of stress.

JB (24, M): Simply self-catered at some point, but recently got too busy and eats out or buys at convenience stores. ② Tended to miss dinner. ① Cares about health a little bit, ② but eat whatever she wants. ① “I try to eat breakfast.” “I eat few vegetables and have irregular meal times.” ③ “(When eating with someone) call someone, who already knows.”

JC (22, M): Likes cooking and always self-caters. ① Cares about a balanced diet. If it becomes too busy at the part-time job, eats the food provided at work and reduces self-catering. ② Consumed less food, and nutritional balance worsened, compared to when he was at home. ① “Self-catering is cheaper; I like to cook.” ② “The percentage of fish intake has decreased.” ③ “Initially, I would have a meal with a good friend.”

JD (21, F): Self-caters, but recently got busy and use of convenience stores increased. Cares about nutritional balance and eats ① vegetables at each meal. ② Since she buys cheap vegetables only, nutritional balance is not good. ③ Made friends at a drinking party. “If I become busy with studies, I do not have time to cook.”

JE (20, M): No motivation for self-catering. Only eats out and has home meals. Uses the student cafeteria every day. ② Ate only what he wanted to eat, but could feel his physical condition deteriorate and ① kept vegetable intake in mind. ③ Has dinner with friends, and holds many pot parties. ① “There was a time when I felt sick because of the meal.”

JF (19, M): Self-caters; if not busy, mostly self-caters; eats home-made meals, and the food provided at the part-time job. ① Worried about the frequent intake of meat, ① Drinks vegetable juice, to make up for this. ② Gained weight upon changing diet and not exercising. ① “(My weight increased) wholly due to my eating habits.”

JG (23, M): Self-caters, but is not good at cooking. ② Nutrition is biased towards carbohydrates. Recently had a severe illness and it was because of his diet. ③ It is easy to talk a lot and make friends over a meal or at a party. “(Self-catering) saved money and was cheaper; also for me.” ② “Probably less intake of vegetables.”

JH (19, F): Finds self-catering economical and likes cooking. During the examination period, ② skipped meals or ate bread. ① Tries to consume vegetables for nutrition. ③ Friends gathered often and we held pot parties. “I would disproportionately eat my favorite meals at boarding.” “It is fun to eat with my friends.” ③ “A drinking party is informal for everyone and has a good atmosphere.”

JI (21, F): Finds self-catering cumbersome; eats frozen food and also eats out. At first, ② only ate what she liked and caught a cold. Then, she became aware of ① the importance of the intake of vegetables and fish. ② Does not eat breakfast because cannot wake up in the morning.

JJ (21, F): Self-caters; it is cheaper and one can eat the next day if there is no part-time job and no classes. ① Aware of too little nutrition, but ② its balance is not good. ③ Makes friends at mealtimes or drinking parties.

JK (21, F): Self-caters three or four times a week. Lacks the time to self-cater or finds it cumbersome; eats out or buys takeaways. ② Intake of vegetables and fish is small, but the diet is not bad, because of self-catering. ③ Becomes friends with the same group that she eats with or holds drinking parties with.

JL (22, M): Rarely self-caters; eats out and consumes home-made meals. Uses the student cafeteria once a day. ② Nutritional balance is bad. “If buying food at a convenience store is eating out, I think that I only ever eat out.”

JM (18, M): Although self-catered during the first half of being at the boarding house, ② did not eat, sometimes, because it is cumbersome. ② Nutritional balance is not good, but does not think that it could be improved. “At first, I was motivated, and then it became tough to do every day.”

## Discussion

### Dietary Life of Korean and Japanese University Students

In the narrative, there is awareness of and concern regarding “being healthy,” “being unhealthy,” and unhealthy behavior, as well as reference to food preparation as having a social function and connecting people. Both Korean and Japanese students initially chose to prepare their own food at admission to university. However, their lives changed, as they

adjusted to college life. The basic problem and circumstances are similar across the two groups. Initially, they self-catered, due to economic reasons and preferences, but this was difficult to sustain, as it required cooking experience and time. Once they became busy with part-time work or studies, they skipped meals, bought food at convenient stores, and then ate at home, or out with friends. There are many handy convenience stores in Japan. Mealtimes and meal frequency became irregular, and they became aware of the interference with their nutritional balance. For example, there was a lack of vegetable and fish intake, coupled with consumption of favorite food only, and a decrease in the number of food items consumed. Participants were then faced with an unhealthy condition or gained weight, and linked these to the consumption of unhealthy food and dietary disruptions.

Some students were aware of the need to improve their eating habits. They understood a healthy diet to mean, for example, having breakfast, eating three meals per day, eating vegetables, not being biased towards meat consumption, not consuming too much of one's favorite food, eating out less often, and eating less processed foods. However, they felt that they did not have nutritional balance. It could be assumed that the participants had some knowledge of the extent of item intake or quantity. The idea that a regular, nutritionally balanced meal is desired is consistent with Takano et al.'s (2009) results on Japanese university students. Compared to the study on Chinese students, who did not talk about their knowledge of nutrition (Hatanaka & Tanaka, 2015), the results of this research demonstrate high health awareness.

Korean students showed neglect of their health, based on attraction to food from different cultures. Affordable luxury desserts are one of the attractive foods in Japanese culture. Cross-cultural difficulties emerged, but Japanese food proved to be attractive to foreign nationals. More narratives have shown that international students eat to deal with stress or the economic constraints related to food. Studying abroad has been known to increase cross-cultural stress in an unfamiliar environment or one with an unfamiliar language (Tanaka, 2005). As shown, food prices in Japan are high, compared to the international students' home country; this compelled them to save, and their suppression of food intake seems to have strengthened. Japanese college students have basic knowledge of diet (Otake & Ishikawa, 2010). It could be assumed that the Japanese students in this study regretted their dietary behaviors, as they recalled the food education that they had received until secondary education.

The social functions of food were observed in both groups, but the content thereof was somewhat different. Koreans prefer to dine with people. They communicate through food and drink and their culture is to value human relations (Ministry of Foreign Affairs of Japan, 2014). Koreans often cook at home for friends. In other cultures, other than among Koreans, cooking and hosting are considered social skills. Food functions as cultural exchange tools to nurture friendships. "Co-eating" has also been observed among Japanese students; however, emphasis herein is to enjoy or strengthen the camaraderie or comfort associated with the ingroup. Although there were no narratives on cultural adjustment, it is precisely because of that that Japanese students had fewer experiences of cultural exchange (Tanaka, Takai, Kohyama, Minami, & Fujihara, 1994), as compared to Korean students.

### **Implications for Intercultural Dietary Education**

Contemporary Japanese food culture, as opposed to the traditional and healthy food culture of Japan, was incorporated into Korean students' lives. There is an increasing prevalence of

high-calorie, processed Western foods, despite Japanese food drawing attention from other countries, as making up a healthy diet. A study by the Cabinet Office Food Education Promotion Office (2009) on Japanese university students found the frequency of eating out to be high. Eating out is convenient and satiating; one can either eat out or buy food at a convenience stores. However, it makes it difficult to maintain nutritional balance and one's health. It could be suggested that cross-cultural adaptation to food is a necessary, proactive choice in building healthy behavior and is not simply habituation to the socio-cultural environment. Adaptation to food from a different culture is probably a unique process through which one becomes aware of the social issues in the host country.

Food education immediately after arrival in Japan, coupled with early implementation thereof, is expected of international students (Takahama & Tanaka, 2013). The international students in this study showed that provision of information regarding proper eating behavior is useful for one's health and in self-catering. Such education would teach those who tend to eat out about ways of selecting food and the use thereof. Otake and Ishikawa (2010) suggested that places such as convenience stores and student cafeterias would play an important role in supporting students' daily diet. This would be facilitated by, for example, the fact that the teaching provided is in relation to maintaining nutritional balance, how to save perishable food such as vegetables, and easy recipes with many vegetables that can be found in Japan.

Since their understanding of food was very similar to that of Japanese students, Korean international students have less difficulty with dietary education in Japan. It would be useful to deliver reliable information that summarizes "elements that are required for the realization of a healthy diet"; nutritional balance would be maintained, provided that students are interested in food education. The Ministry of Agriculture, Forestry and Fisheries (2016) recommended nutrients that are necessary for young people, as shown in the "Food Guide" in Figure 1.



Figure1: Balanced guide of nutrition

This is a guideline on Japanese food, referring to daily dietary requirements, regardless of self-catering or eating out. The guide is composed of five items such as main food, side dishes, main dishes, milk, dairy products, and fruit. A combination of these nutrients would result in sustained nutritional balance. However, in order to take advantage of the food culture in Japan, despite recognizing the benefits of health awareness or improvement in diet, appropriate dietary behavior or information regarding nutritional balance would still be difficult for individuals to understand. Therefore, it is important that the contents of Figure 1 be translated into Korean, to offer Korean students support in selecting food that suits their taste and diet.



However, ethnic eating habits hold spiritual meaning or significance. Full transition to Japanese food is unrealistic. It is necessary to cope with a different menu structure and adjust ethnic cuisine in view of Japanese guidelines. It is unclear as to how adjustment to common behaviors and gaining a sense of cross-cultural food are attained. It is essential to confirm whether educating foreign nationals is a means of providing a reference fit. It would also be necessary to carefully interpret and understand individual and environmental elements. Unlike in traditional food education, it is important to take advantage of the social aspect of food. Food can prompt the width and depth of cross-cultural interpersonal exchange. If food can strengthen human relations, then it can positively influence cross-cultural adjustment. Moreover, foreign nationals have the opportunity to receive information regarding diet and nutrition, as well as cultural knowledge, based on the constructed relationship.

Based on the above, cross-cultural adjustment and food are interlinked. In summary, cross-cultural food education can be understood as a two-factor model that consists of, for example, “response to heterogeneity” and “nutrition education.” The response to the heterogeneity may involve the resolution of problems occurring through discontinuity in the environment (negative aspect) and taking advantage of cultural differences (positive aspects). The satisfaction derived from eating has deep emotional implications, and eating behavior alludes to fun and stress and anxiety relief (Shimai, 1997). However, inappropriate eating behaviors may inhibit health. For example, in the excessive consumption of sweet foods and disturbance of dietary habits, education on food would encourage the setting of goals relating to eating habits. In previous food education in Japan, focus on the problem solving of these individuals has been addressed. Health maintenance in a foreign country would be possible, if the management of dietary behavior formed part of cross-cultural adjustment. Suitable adjustment to the environment can facilitate learning from a heterogeneous environment, position heterogeneity as a new value, or enhance cross-cultural adjustment. The step from “co-eating” behavior to the adoption of a healthy diet and life is expected to proceed further.

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***Japanese Attitudes about Home and Children in Relation to  
Marital Happiness across Time***

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**Abstract**

The current study analyzes marital happiness in conjunction with attitudes about home and children within a Japanese population over the span of 18 years. Data was taken from the International Social Survey Programme from 1994, 2002, and 2012 with a total number of 3651 participants. Research on Japanese couples demonstrates a shift in individuals marrying increasingly later in life (Retherford, Ogawa, & Matsukura, 2001). Japanese women in particular are delaying or forgoing marriage because of the societal expectations for education and work (Raymo & Iwasawa, 2005). Traditional home and family continue to be important to Japanese culture, however they are becoming less valued (Retherford, Ogawa, & Matsukura, 2001). These factors could suggest a shrinking population due to attitudes on marriage and relationships changing over time, indicating a need to determine the possible influences of these trends.

The current study examined relationship attitudes pertaining to traditional gender roles and the importance of children in marriage. The results suggest that non-married men believe that marriage is better if children are wanted and that watching children grow brings joy. In contrast, it is the married women who believe these statements significantly more than non-married women. In 1994 and 2002, married people reported that married people are generally happier than non-married people, however in 2012 the difference disappeared. Implications of these results include significant differences in the perceptions on marriage and children across the sexes and across time.

Keywords: Japan, marital happiness, children, home, relationships, marriage

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## Introduction

Japan's modern views and practices on marriage and family differ markedly from the traditional family values that previously shaped Japanese society. The family was viewed as an idealized institution in which each family member contributed to the support and perpetuation of the family (Ariga, 1954). This perpetuation was carried out by family members preserving household resources and passing them on to their posterity, enabling the family lines to grow stronger with each subsequent generation (Imamura, 1990). As written in Lebra's *Japanese patterns of behavior* (as cited in L. G. Bell & Bell, 2000), the purpose of marriage in traditional Japanese culture was an institution directed towards the raising of children, with less emphasis placed on marriage being a relationship where psychological needs of partners were met. Family lines were perpetuated as two families joined in marriage, each honoring their ancestral heritage (Imamura, 1990).

In marriage, men had more privileges because of the dominant patriarchy that was strictly adhered to (Imamura, 1990). This patriarchal pattern has affected Japanese gender roles in marriage. For example, men are more likely to overestimate their wife's contribution to household chores while women are more likely to underestimate their own contribution to household chores (Kamo, 2000). Furthermore, gender roles are perpetuated as Japanese women earning high income are still expected to perform most household chores (Kaneko, et. al., 2008). There is a normative expectation that women perform the majority of the housework and care for the children (Henneck, 2003).

In the past few decades there have been growing concerns about the drastic changes of traditional attitudes and patterns of marriage and family in Japan. Using childcare centers, never marrying, cohabiting, and unmarried childbearing were all strongly discouraged under traditional Japanese family values (Rindfuss, Choe, Bumpass, & Tsuya, 2004). Traditional marriage is becoming increasingly rare in modern-day Japan. The average age of marriage for women is 29 years and 30 years for men (Statistics Bureau, Ministry of Internal Affairs and Communications, 2009). The marriage rate has dropped from 10 per 1,000 in 1970 to 5.3 per 1,000 in 2013. In 2010, 72% of men and 60% of women never married (Piotrowski, Kalleberg, & Rindfuss, 2015). Despite significant increase of age at marriage, marriage stability has been decreasing, and fertility levels are very low. The postponement of marriage and decline in average fertility rates may indicate that Japanese women are reluctant to enter into traditional marriage (Rindfuss, Choe, Bumpass, & Tsuya, 2004). This falling birthrate is called *Shōshika* (Ishida & Slater, 2009).

These changes are potentially due to various factors. According to contemporary research on the comparison of familial changes in Western countries and Japan, similar social pressures from Western countries also affect Japan. These social pressures include urbanization, expensive housing, increased rate of women receiving an education, employment patterns (Rindfuss, Choe, Bumpass, & Tsuya, 2004). A qualitative study focusing on Japanese women's view of marriage reflects why the marriage rate is declining. Twenty-six highly educated Japanese women attributed not marrying to inhibition of autonomy and a desire to avoid sexist men (Nemoto, 2008). More men are delaying marriage due to urbanization, expensive housing and changes in employment patterns. Work has become part-time, less secure, and scarce. As a

result, men work non-regular jobs and live with their parents through their 20s and 30s. (Piotrowski, Kalleberg, & Rindfuss, 2015).

The current study looked at some of the potential beliefs and attitudes that may further influence the current trend of the declining birthrate. While the sociological reasons have been well studied, the goal of this research was to understand what the Japanese people themselves believe about marriage and children. This research is important because determining the potential reasons behind the declining marriage and birth rate could aid the current efforts to reverse these trends and increase the Japanese population (White, 2015).

## **Method**

### **Participants**

There were 3,652 total participants, however the participants who were “divorced,” “widowed,” and “separated but still married,” were excluded. After the exclusions, there were 3,282 participants that were analyzed. The participants ranged in age from 18-96 years old, with a mean age of 46.13 (SD = 18.04). Of the included participants, there were 1,573 males and 1,709 females.

### **Materials and procedure**

The data used in this study was secondary data taken from the International Social Survey Programme from 1994, 2002, and 2012 (ISSP Research Group, 2013). All questions were asked on a 5-point Likert scale from “strongly agree” to “strongly disagree.” For this study, hypotheses were generated, and factorial ANOVAs were run on four different questions using Statistica (StatSoft, Inc., 2012). These questions were analyzed to compare the main effects of marital status, gender, and the interaction, and also to compare the main effects of gender, time, and the interaction.

### **Results**

Four factorial ANOVAs were run to measure the effect of time on male and female views on four specific statements, listed below. Another four factorial ANOVAs were run to determine the effect of time on the views of those who are single and those who are married on the same four statements.

The first statement analyzed was “married people are generally happier than unmarried people.” When analyzed by marital status, both time ( $F(2, 3121) = 3.91, p < .05, \eta^2 = 0.003$ ) and marital status ( $F(1, 3121) = 11.2, p < .001, \eta^2 = 0.004$ ) were found to be significant, while the interaction was not ( $F(2, 3121) = 1.99, p > .05, \eta^2 = 0.001$ ). The statement was then analyzed by gender where time ( $F(2, 3121) = 6.73, p < .01, \eta^2 = 0.004$ ), gender ( $F(3121,1) = 37.85, p < .001, \eta^2 = 0.01$ ), and the interaction ( $F(2, 3121) = 5.06, p < .01, \eta^2 = 0.003$ ) were all significant (refer to Figure 1.1 and 1.2).

The next statement, “people who want children ought to get married,” was first analyzed by marital status and time. Time was found to be significant ( $F(2, 3154) = 27.32, p < .001, \eta^2 = 0.017$ ), as well as marital status ( $F(1, 3154) = 32.27, p < .001,$

$\eta^2 = 0.01$ ), and the interaction ( $F(2, 3154) = 3.99, p < .05, \eta^2 = 0.003$ ). When analyzed by gender and time, time ( $F(2, 3154) = 22.96, p < .001, \eta^2 = 0.014$ ), gender ( $F(1, 3154) = 12.18, p < .001, \eta^2 = 0.004$ ), and the interaction ( $F(2, 3154) = 3.24, p < .05, \eta^2 = 0.002$ ) were all found to be significant (refer to Figure 2.1 and 2.2).

The third statement, “Watching children grow up is life’s greatest joy” was first analyzed by marital status. Only marital status ( $F(1, 3153) = 70.1, p < .001, \eta^2 = 0.02$ ) was found to be significant, while both time ( $F(2, 3153) = 1.16, p > .05, \eta^2 = 0.001$ ) and the interaction ( $F(2, 3153) = .31, p > .05, \eta^2 = 0.0002$ ) were found to be nonsignificant. The same pattern was found when analyzed by gender, with only gender ( $F(1, 3153) = 8.42, p < .05, \eta^2 = 0.003$ ) being significant, but neither time ( $F(2, 3153) = 2.56, p > .05, \eta^2 = 0.002$ ) nor the interaction ( $F(2, 3153) = .09, p > .05, \eta^2 = 0.0$ ) being significant (refer to Figure 3.1 and 3.2).

The last statement, “what women really want is home and kids,” was analyzed by marital status and time. Time ( $F(3046,2) = 5.58, p < .01, \eta^2 = 0.004$ ), marital status ( $F(1, 3046) = 45.96, p < .001, \eta^2 = 0.015$ ), and the interaction ( $F(2, 3046) = 7.71, p < .001, \eta^2 = 0.005$ ), were all found to be significant. Similar results were found when gender was analyzed, with time ( $F(2, 3046) = 21.09, p < .001, \eta^2 = 0.014$ ), gender ( $F(1, 3046) = 8.03, p < .01, \eta^2 = 0.003$ ), and the interaction ( $F(2, 3046) = 5.3, p < .01, \eta^2 = 0.003$ ), all being significant (refer to Figure 4.1 and 4.2)

## Discussion

In terms of marital happiness, it appears that there was a positive trend overall in the number of people who believe that those who are married are happier than those who are single. This could be due to the Japanese people’s consistency in the belief that marriage does have benefits (Kaneko et al., 2008). Interestingly, females and those who are single tended to believe this more so than males and those who are married. The overall positive trend points to a potential increase in the amount of marriages in Japan, and as a natural result, one could assume the birthrate may rise along with it.

From 2002-2012, single, married, and male respondents became much more likely to disagree with the statement “people who want children ought to get married,” though females have had a steady decline in agreement since at least 1994. This could be due to the increasing amount of females who are getting an education and entering into the workforce, as they may not find children to be the most important things to fulfil their lives as it may have been traditionally. In addition, the declining marital trends in Japan are most distinct among the women who are highly educated (Becker, 1991; Parsons, 1949). Overall, as mentioned particularly over a ten-year period, there has been a steady decline from overall agreement to overall disagreement with this particular statement, indicating a possible reason for the declining marriage rate could be a perceived lack of importance of the institution of marriage, even in the pursuit of having children.

The third question analyzed was “watching children grow up is life’s greatest joy.” Time was shown to have no effect on belief about this statement, making it consistent over the twenty years studied. Those who are single were more likely to agree than those who are married, and males were more likely to agree than females. Overall, most Japanese tended to disagree with this statement. This could be a contributing



cause to the low birthrate, however it would not contribute to the declining trend of the birth rate because time was shown to have no effect. In fact, if time has any effect, the data shows a non-significant increase from 2002 to 2012, which is contrary to what might be expected considering the other results. Interestingly, these results seem to contradict a 2008 study by Kaneko et al. which found that the marital value of “having one’s own children and family” has increased over time. These inconsistent results lead to the need for future studies to determine the underlying ideas and perhaps causes of these beliefs.

The analysis on the statement “what women really want is home and kids” revealed a steadily decreasing agreement throughout the years for married participants. However, the same trend was not demonstrated in single participants, who retained a constantly low agreement throughout the time period. Over the years, the gap between married and single participants in this statement became statistically non-existent as of the year of 2012, making their views statistically more similar than any previous year. A possible explanation of this tendency could be that Japanese people are becoming less traditional in their views about what women want. This shift is the most pronounced in highly educated and career-minded women, who are less likely to find suitably educated spouses, and when married are unhappy with the asymmetric division of labor between males and females that persists in relationships (Raymo & Iwasawa, 2005). The revealed tendency could lead to those who are married having less children even if the declining marriage rate were controlled for.

A few of the limitations of this study include the fact that the data used in these analyses being secondary data, and there being an unequal sample of married and single participants, as there were around 2,500 married participants and just under 800 single participants.

The current study dealt with marital attitudes in Japan in relation to their effect on the declining marital rate, and in turn, the declining birthrate. The sociological reasons thought to be responsible for the declining birthrate, or *Shōshika*, have been studied previously and are already known, but it was the aim of this study to better understand some of the opinions and beliefs about marriage and children in Japan that may affect the birth rate over time. For this reason, the analyses were primarily psychological in nature, and revealed some interesting diverging ideas both over time, gender, and marital status. These results have the potential to be a starting point for helping the Japanese people find ways to increase their population and begin to reverse the declining birth rate, if desired.

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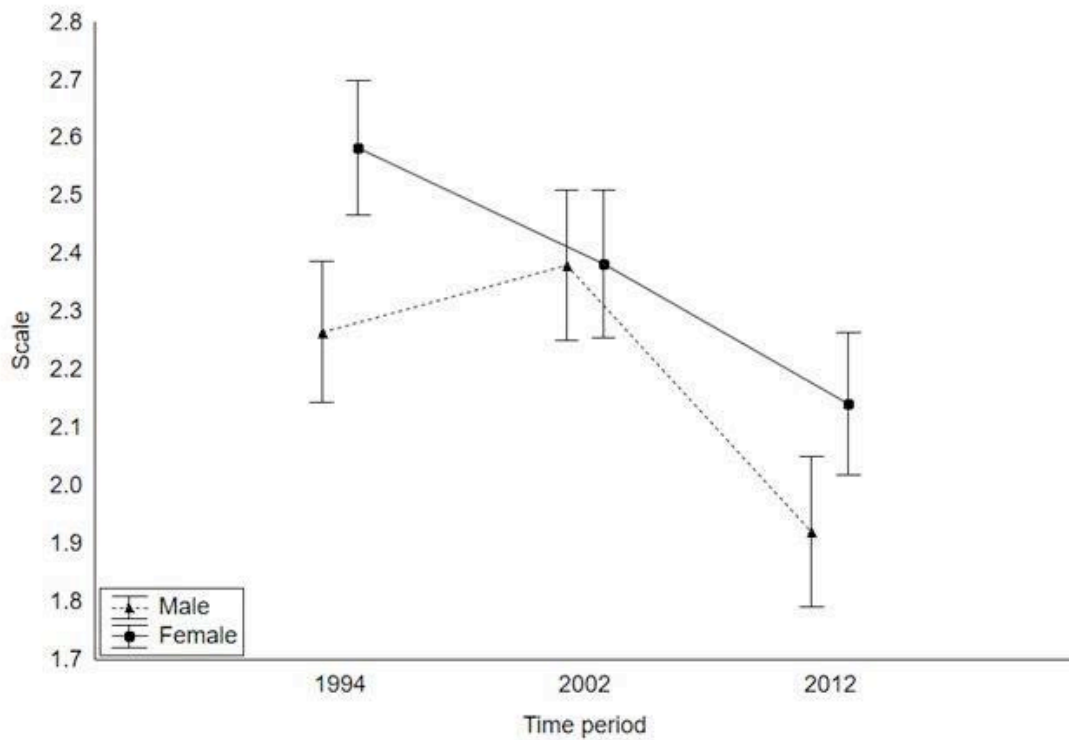


Figure 1.1. Interaction between gender and time on the statement: People who want children ought to get married.

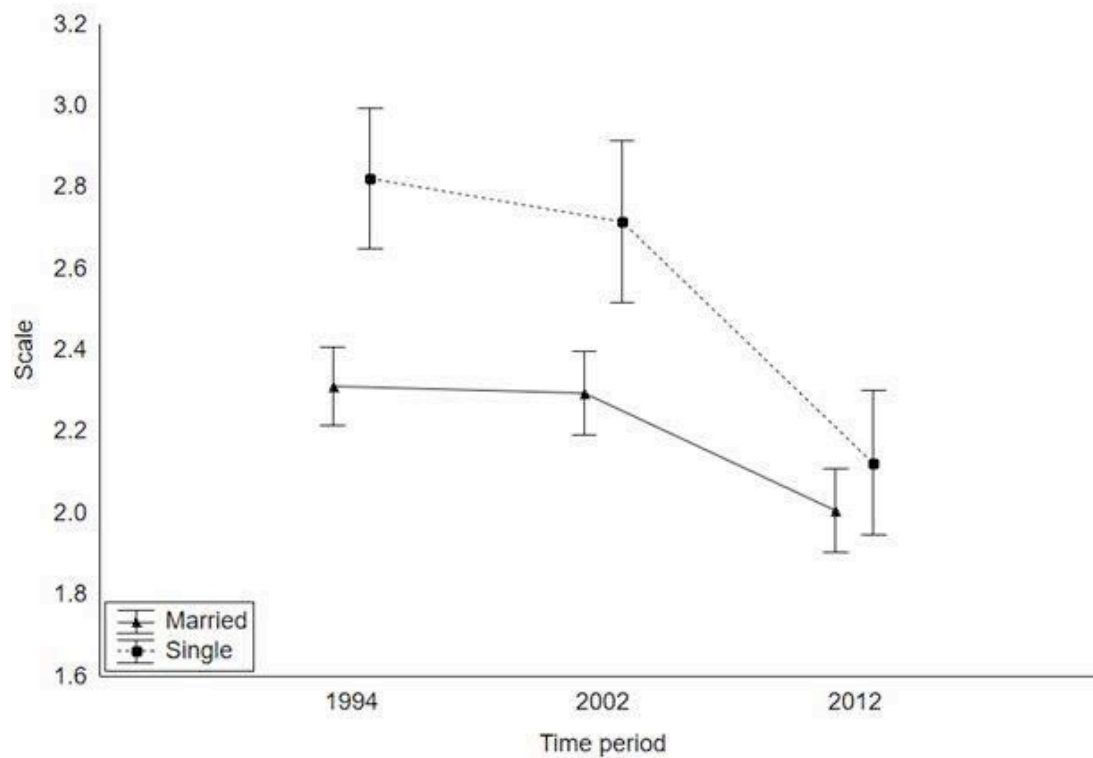


Figure 1.2 Interaction between marital status and time on the statement: People who want children ought to get married.

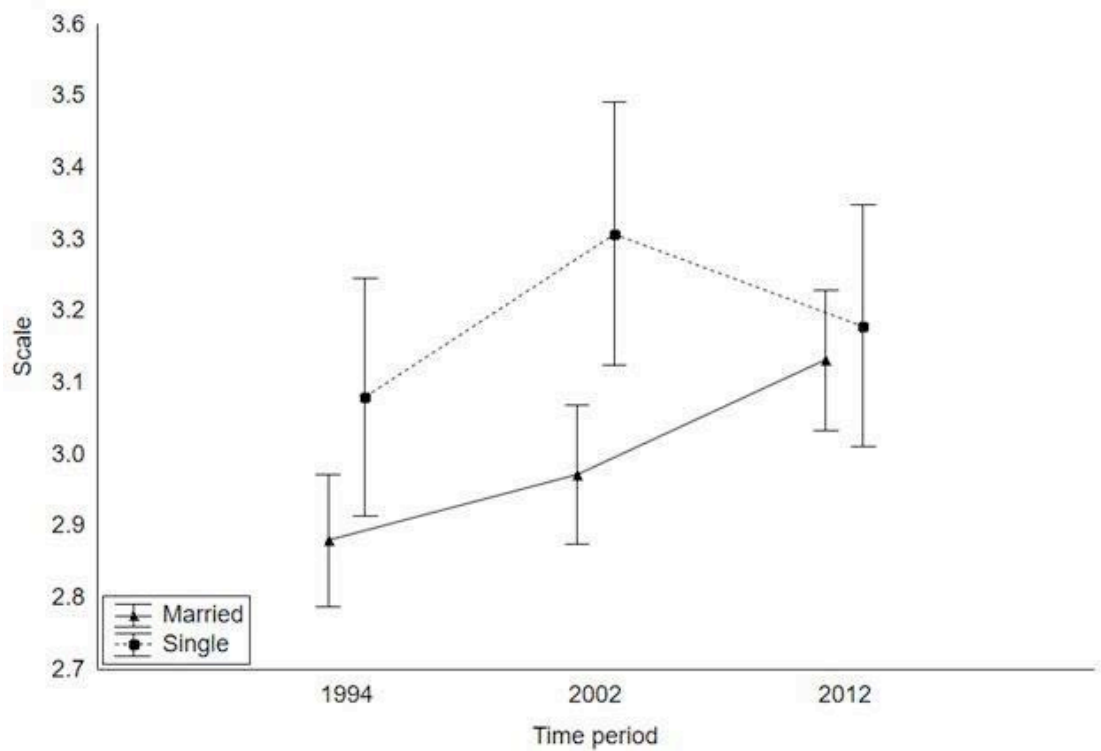


Figure 2.1 Interaction between marital status and time on the statement: Married people are generally happier.

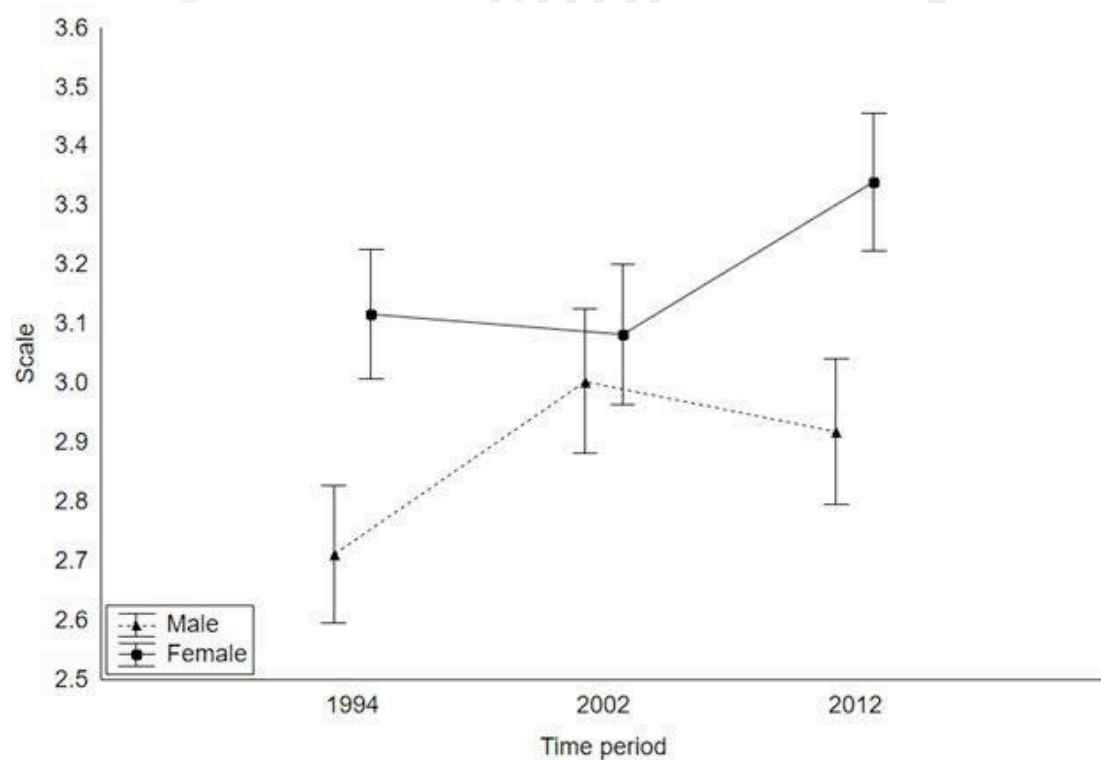


Figure 2.2 Interaction between gender and time on the statement: Married people are generally happier.

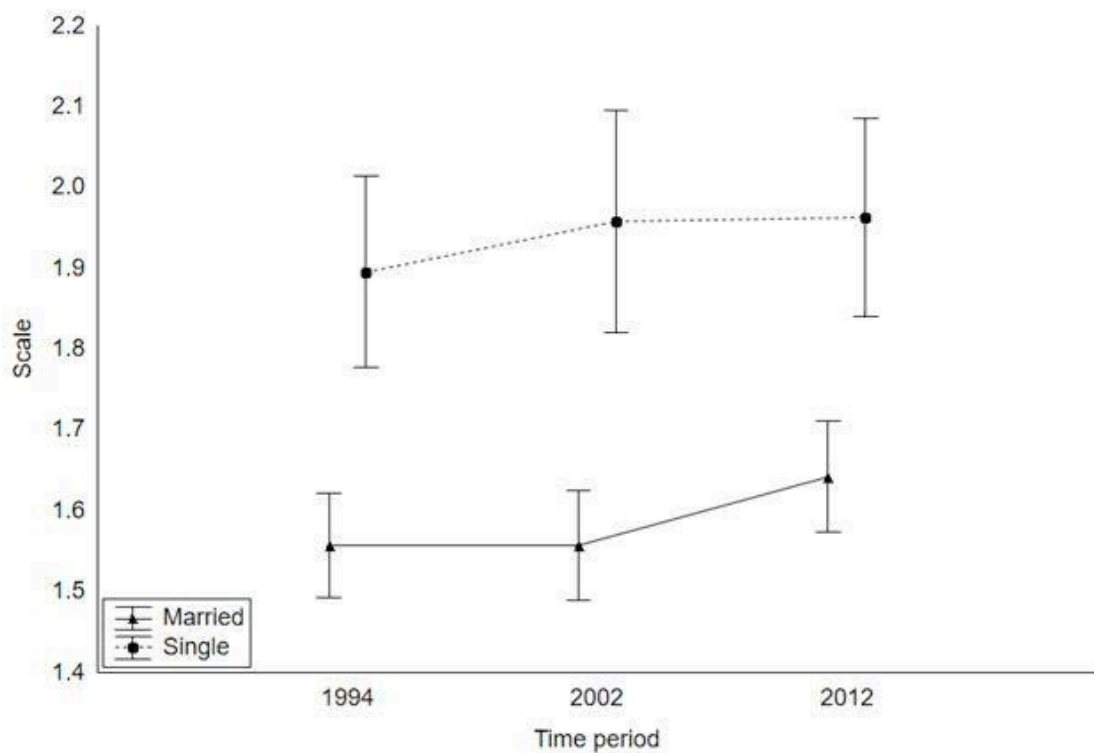


Figure 3.1 Interaction between marital status and time on the statement: Watching children grow up is life's greatest joy.

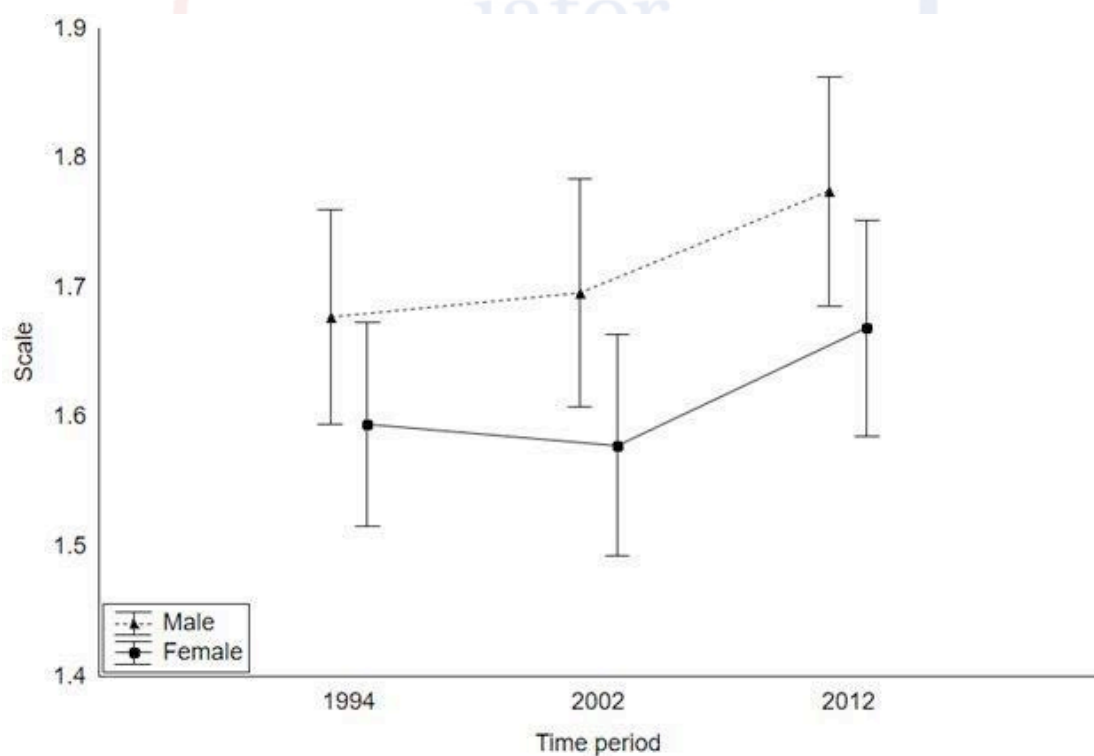


Figure 3.2 Interaction between gender and time on the statement: Watching children grow up is life's greatest joy.

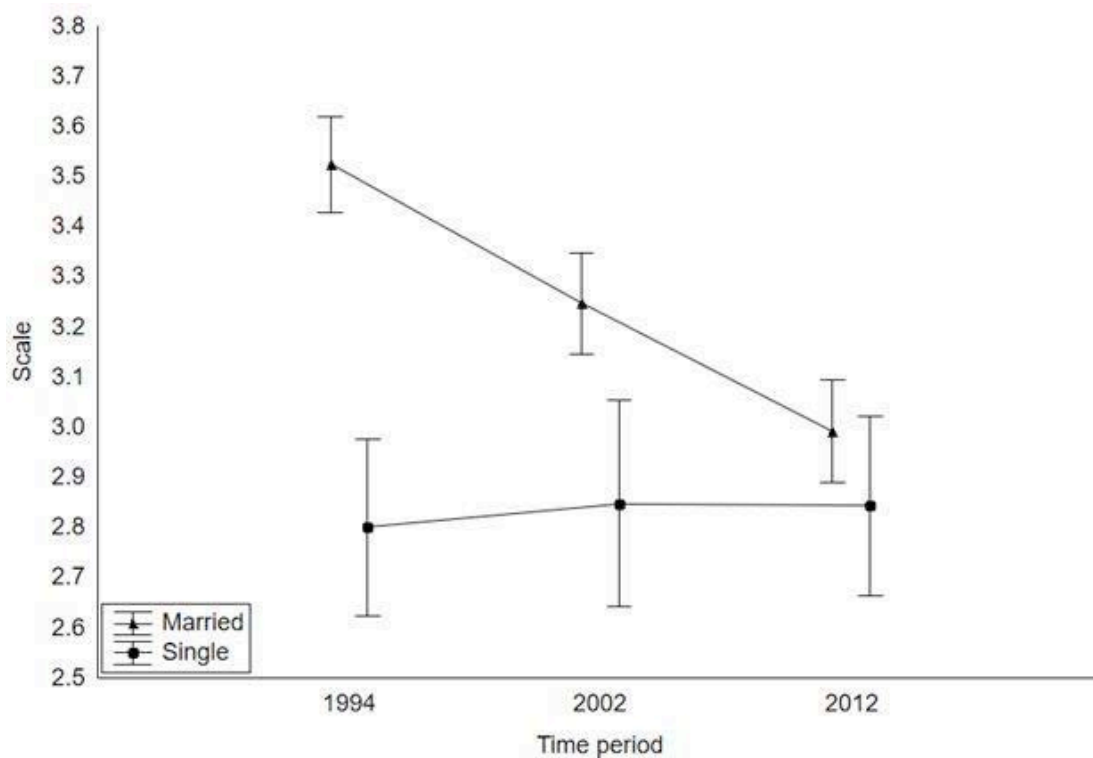


Figure 4.1 Interaction between marital status and time on the statement: What women really want is home and kids.

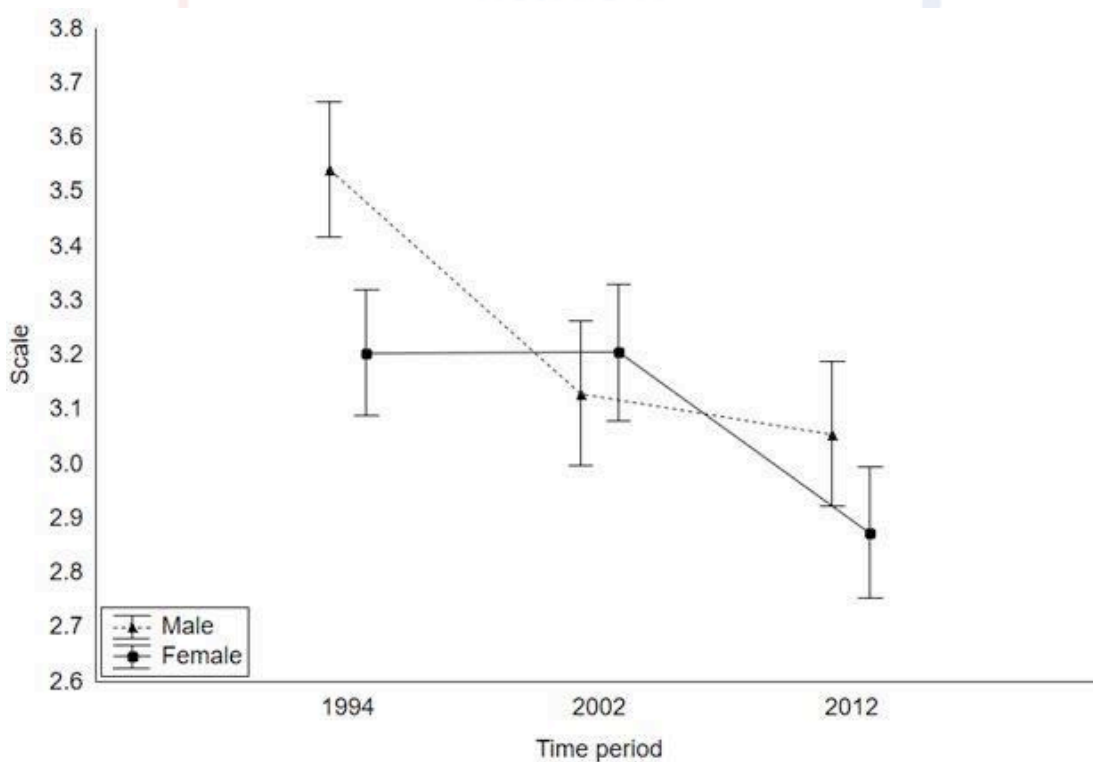


Figure 4.2 Interaction between gender and time on the statement: What women really want is home and kids.





*An Investigation of the Mate Preferences of Young Adults Using Choice-Based Conjoint Analysis*

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**Abstract**

The current study is an exploratory investigation concerning mate preferences of young adult males and females. Previous research shows that men and women differ in their mate selection preferences (Buss & Barnes, 1986). By presenting participants with hypothetical scenarios that combined different packages of mate characteristics, the current study is designed as a choice-based conjoint analysis. The participants evaluated their preference for each mate incorporating these attributes. Conjoint analysis is an effective tool for determining hidden psychological preferences (Caruso, Rahnev, & Banaji, 2009). The current study's survey, adapted from Buss and Barnes (1986), was taken by 208 participants. The religiosity of the potential mate was considered significantly more important than other attributes.

Keywords: Mate preferences, choice-based conjoint analysis, relationship status

## **Introduction**

The variance in mate selection preferences between men and women is widely known. Men have been shown to desire physical attractiveness and potential for fertility when looking for a mate, while women prefer promising financial status in a mate more than men in long-term relationships (Buss & Barnes, 1986). In long-term relationships, individuals consistently adhere to these evolutionary principles. Research also suggests that, above all else, individuals are more likely to marry someone who is similar to them in almost all variables (Buss, 1985). The principles of mate selection have been examined in a cross-culturally and yield consistent results with the original research, supporting the universal role of mate selection patterns (Buss, et. al, 1990; Shackelford, Schmitt, & Buss, 2005).

The current study applies a choice-based conjoint analysis design to understand and measure the grouping of attributes that are important to participants in mate selection. Conjoint analysis is a powerful method not only for quantifying participants' preferences, but also for revealing latent tendency of their hidden psychological preferences (Caruso, Rahnev, & Banaji, 2009). According to Lewis, Ding, and Geschke (1991) and Orme (2010), conjoint analysis has been widely applied in measuring the degree of importance of each attribute individually and its influence combined with others on the consumer's choice of the overall product. Its unique ability to measure participants' preferences for a diverse range of different topics with tremendous accuracy has made the choice-based conjoint analysis one of the top choices in preference predicting (Orme, 2010). The nature of Sawtooth Software's choice-based conjoint analysis makes it so that participants are unable to choose extreme sides of a Likert Scale.

Through the use of choice-based-conjoint analysis, individuals were presented hypothetical scenarios that combined different attributes they could find in a potential mate. We hypothesize, consistent with evolutionary theory, that mate preferences are based around wealth, fertility, and indicators of committed child rearing. We investigated this hypothesis in young adults by using choice-based conjoint analysis.

## **Method**

### **Participants**

This study focuses on individuals who were either single or unmarried, but currently in a committed relationship. Of the 208 participants that completed the survey, 56 were males and 152 were female. Participants ranged between the ages of 18 and 30 ( $M = 21$ ). Of these, 36% were in a relationship and 64% were not in a relationship. A majority of the participants were students at a multicultural religious university gathered through convenience and snowballing sampling.

### **Materials & Procedure**

Individuals were invited to participate in the study through social media or by being approached by the researchers. A link to the survey created through Sawtooth Software was then sent to those who consented to be a part of the study. Participants were presented with 18 hypothetical scenarios that combined different packages of

mate characteristics adapted from Buss & Barnes (1986). Participants selected the grouping of characteristics that best matched their idea of their ideal spouse and least ideal spouse. Sawtooth Software was further utilized to determine the preferred attributes individuals desired in a potential spouse. By adopting the Hierarchical Bayes estimation method, Sawtooth Software calculated the “utility scores” and “importance scores” based on the collected data. utility scores reveal individual participant's relative preference of attributes within the same items of marital preference. importance scores express individual participant’s preference between trait groups.

## Results

To determine the mate preferences of young adults, choice-based-conjoint (CBC) analysis was utilized to determine the importance scores and utility scores for each attribute. The result, as demonstrated by important scores, show that participants have a higher preference for attributes that fell in the following categories: Religious, Politically Conservative, and Artistic-Intelligent (refer to figure 1). The attribute Religious was preferred two times the second largest attribute, Politically Conservative, with a large importance score of 30.1%. The result from the utility scores indicates that, overwhelmingly, a politically liberal (utility = -32.4), idealistic (utility = -27.1), and agnostic (utility = -150.7) spouse was not preferred by young adults (refer to figure 2, 3, 4). The top categories for what participants desired in a spouse were: church-goer, good moral character, healthy, wealthy, interesting to talk to, and intellectually stimulating (refer to figure 2, 3, 4).

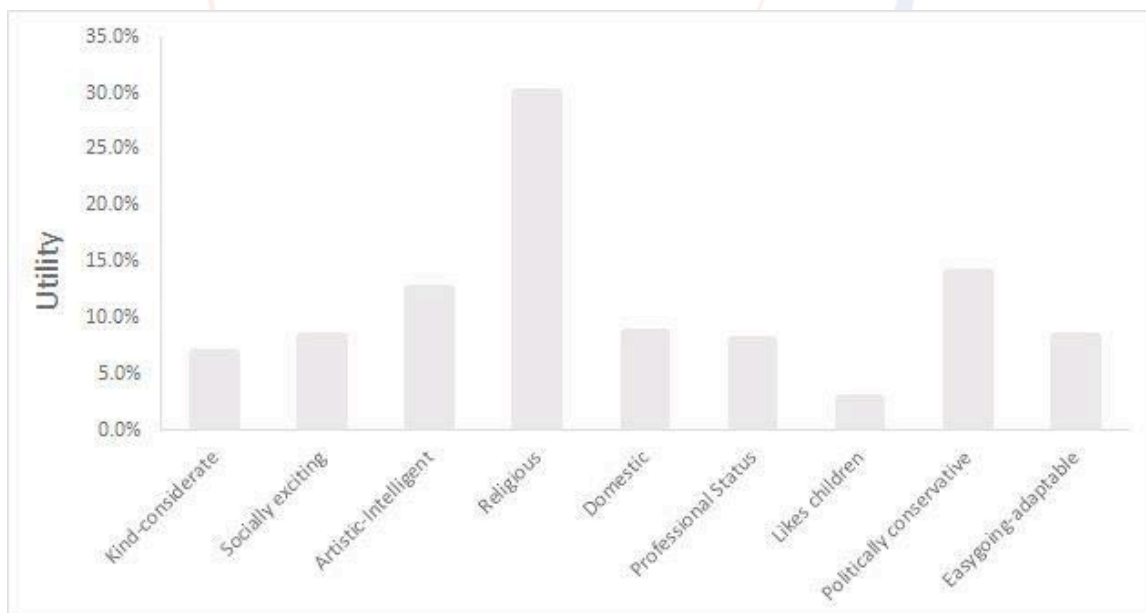


Figure 1: Importance score Summary



Figure 2: Religious Utility Score

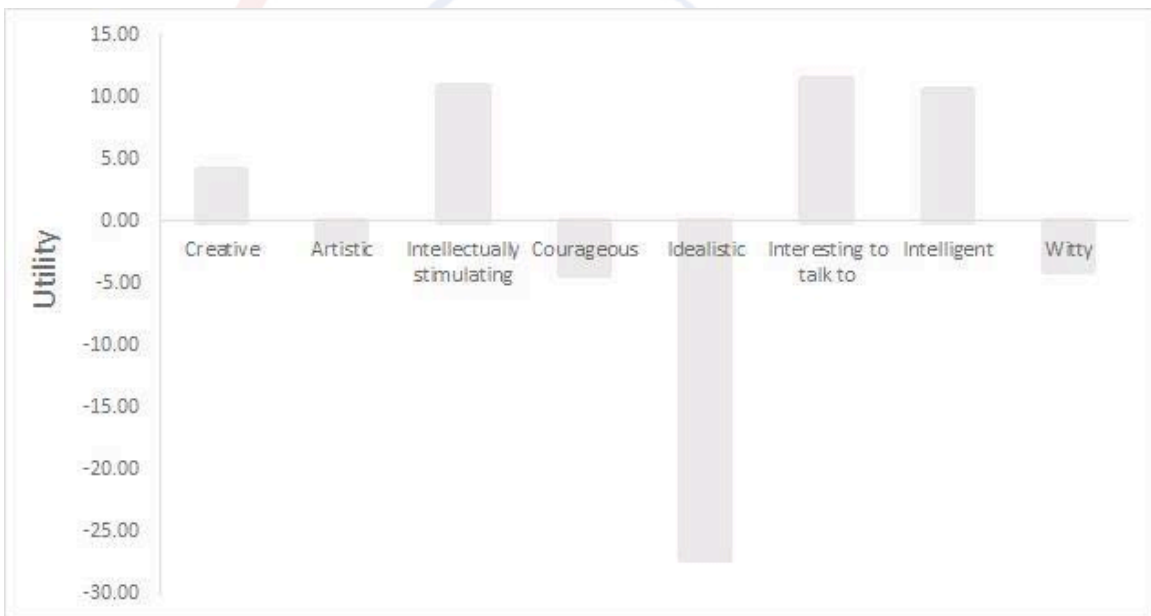


Figure 3: Artistic-Intelligent Utility Score



Figure 4: Politically Conservative Utility Summary

## Discussion

Results provide evidence that supported the hypotheses. Young adults were found to prefer a mate who demonstrated optimal attributes consistent with evolutionary theory. While the results show a bias in favor of religiosity, this is most likely due to the participants attending a religious university. However, the preference for a religious spouse is beneficial from an evolutionary standpoint in that it increases paternal certainty for the males and provides the females with a “faithful” spouse who will not deplete their resources through having an affair (Strassmann, Kurapati, Hug, Burke, ... & Hammer, 2012). Within the Religious category, a church-goer may be preferred over other religious demonstrations because of the commitment shown through the action of going to church. These hypothetical men or women not only say they are religious but demonstrate that they are (Weeden, Cohen, & Kenrick, 2008). Intelligence is evolutionarily beneficial for females seeking a spouse due to the connection between intelligence and a job that provides financial resources (Buss & Shackelford, 2008). This same concept applies to individuals who consistently chose an ideal spouse who was labelled as wealthy. Health is a crucial attribute for the evolutionary focus of gene diversity and the survival of offspring (Buss & Shackelford, 2008). Choice-based conjoint analysis demonstrated that these preferences remain consistent during an extensive survey. The sample size could have created limitations to the current study. Many participants were from a particularly religious population, which could explain why they did not want a mate who was politically liberal or agnostic. Future research should broaden the population size with equal numbers of male and female participants, as well as controlling for religion and other demographic characteristics that could affect the generalizability of this research.

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***Understanding Cross-Cultural Differences between Malaysian Malays and Australian Caucasians in Emotion Recognition***

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**Abstract**

Various studies have proven that culture does influence the way human's process emotion. This study aims to investigate the difference among Malaysian Malays and Australian Caucasians in emotion recognition. There were 38 participants in this study (19 Malaysian Malays and 19 Australian Caucasians). This study consisted of three tasks. The first was the facial emotion recognition (FER) task; the participants were asked to look at pictures of Caucasians and Asians and determine their facial expressions. The second task involved identifying whether the point light display (PLDs) clips shown depicted a human movement or not (biological motion recognition; BMR). In the last task the participants were required to identify the emotional state of the PLD figures (emotion recognition; ER). There were no significant differences found between the two groups of participants for all three tasks. Malaysian Malays used significantly more cognitive reappraisal techniques for emotion regulation as compared to Australian Caucasians.

Keywords: emotion recognition, facial emotion recognition, cross-cultural differences

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## Introduction

The study of emotions across different cultures has a long history and has made a significant contribution to the field of psychology (Matsumoto & Hwang, 2012). Research has demonstrated that emotion is both universal and culture specific and that cultural and biological determinants can be evaluated by understanding the processing of emotion (Matsumoto & Hwang, 2012). Emotional experience (Mesquita, 2003), emotional meanings (Shweder, Haidt, Horton & Joseph, 2008) and emotional appraisals (Mesquita & Walker, 2003) have been found to vary greatly across cultures. Despite these advances in the current understanding of the relationship between culture and emotion, there continues to be disagreements regarding universality versus cultural-specificity and the contributions of biology and culture (Matsumoto & Hwang, 2012).

For instance, Beaupre and Hess (2009) found that French Canadians recognised sadness better than Chinese and Africans while they also recognised shame better than the Africans. Elfenbien, Beaupre, Levesque and Hess (2007) studied facial recognition among participants from Quebec and Gabon. They found that there were cultural differences especially in emotions that are used for social interactions like anger, happiness, shame, sadness, serenity and contempt. This difference holds true for Caucasians and non-Caucasians which were discovered by Shimmack (1996) as the Caucasians in his study were much accurate in identifying the emotions as compared to the non-Caucasians. These researches show that, there are differences in facial emotion expression and recognition across cultures.

Biological motion (BM) processing plays an important role in adaptive social behaviour (Pavlova, 2011). Humans give cues on their emotions through BM. The use of BM has potential for the cross-cultural study of priming reactions to emotional stimuli as the task requires little verbal interaction and the context is culturally-neutral. Cross-cultural studies using BM have concluded that perception of BM is spontaneous and universal (Pica, Jackson, Blake, & Troje, 2011). However, there are research that yield conflicting findings especially in studies using the special needs or populations with disabilities and when comparing gender (Arrighi, Cartocci & Burr, 2011; Alaerts, Nackeaerts, Meyns, Swinnen & Wendroth, 2011).

Hence, this study aims to investigate the cultural differences between Malaysian Malaya and Australian Caucasians in facial emotion recognition and biological motion.

## Hypothesis

Four hypotheses were developed based on results of past research. They are:

1. There will be a significant difference between Malaysian Malay and Australian Caucasian participants in all three tasks (FER, BMR and ER tasks)
2. There will be a significant negative relationship between depressive symptoms and accuracy rates in all of the three tasks (FER, BMR and ER tasks)
3. The Australian Caucasian participants will score higher on the independence and individualism subscale of the SCS and INDCOL



4. The Malaysian Malays will score higher on the interdependence and collectivism subscale of the SCS and INDCOL

## **Methodology**

### **Study design**

This is a quasi-experimental study comparing two groups of participants from different cultures.

### **Participants**

There were in total of 38 participants who took part in this study. Of which 19 were Malaysian Malays and the other 19 were Australian Caucasians. Participants were from the Klang Valley area in Selangor, Malaysia or Melbourne, Australia.

All participants of this study were between the ages of 18 to 60 years old. They are literate in Malay or English. Participants were excluded from the study if they had a diagnosis of substance dependence, history of psychosis, had organic brain injury, unable to understand simple spoken or written English or Malay, had a permanent physical injury/handicap, had non-corrected vision or had non-corrected hearing and if they were of mixed parentage.

### **Location**

This study was carried out at the Behavioural Sciences Lab, Universiti Putra Malaysia and the Behavioural Lab, Monash University Clayton Campus, Australia.

### **Measures**

There were five measures used in this study. They were:

- (a) The Beck Depression Inventory (BDI)-Malay  
The BDI-Malay is a 20-item, self-report tool to assess the severity of depression. In Malaysia, the BDI has been used widely and it has a high internal consistency value for all the items that ranges between 0.56 and 0.87 (Quek, Low, Razack & Loh, 2001). The test-retest reliability of the total BDI score after 12 weeks was 0.85 (Quek, Low, Razack & Loh, 2001). On the other hand, the Malay version of this tool has internal consistency values ranging from 0.71 to 0.91 (Mukhtar & Oei, 2008).
- (b) WHO Quality of Life BREF Scale (WHOQOL-BREF)  
The WHOQOL-BREF is a 26-item questionnaire that intends to examine the individuals' perception of their quality of life. There are four domains derived from the individual items which are (a) physical health (b) psychological (c) social relations and (d) environment. The Bahasa Malaysia version has good internal consistency values which range between .64 to .80 while the test-retest reliability ranges between .49 to .88 (Hasannah, Naing & Rahman, 2003).

- (c) **The Individualism-Collectivism Scale (IndCol)**  
The IndCol scale used in this study was developed by Singelis, Triandis, Bhawuk and Gelfand in 1995. This scale is used to identify individualism and collectivism traits in an individual. There are 32 items in this scale. The Cronbach alpha value for the collectivism items when used with the Indonesian population is .82 while the individualism items had a Cronbach alpha value of .80.
- (d) **Self-Construal Scale (SCS)**  
The Self Construal Scale is a 30 item, self-report tool that assesses an individual's independent and interdependent self-construals. The items are equally divided into two subscales which are the independent and interdependent subscales. The internal consistency values for both subscales were between .70 and .74.
- (e) **The Emotion Regulation Scale (ERQ)**  
The ERQ is a 10-item questionnaire that was developed by Gross and John (2003) to examine an individual's use of two emotion regulation strategies which are cognitive reappraisal and expressive suppression. The internal consistency values obtained for both subscales ranged between .48 and .85. The internal correlation coefficient values for items on the cognitive reappraisal subscale ranges from .41 to .82 and for the expressive suppression subscale from .51 to .76.

## Stimuli

All three tasks were developed and presented using the E-Prime software (Psychological Software Tools).

- (a) **The Facial Emotion Recognition (FER) Task**  
This task involved participants identifying the emotion on various faces as used in previous research. The pictures from the Montreal Set of Facial Displays of Emotion was adapted and used in this task. Participants were shown two sets of pictures; Caucasian and Asian faces, in random order. Individuals in the pictures were expressing one of seven different emotions (neutral, happy, sad, angry, fear, disgust and shame). The participants were required to correctly identify the emotion that is expressed by the individual in the picture.
- (b) **The Biological Motion (BM) Task**  
The procedure was developed based on Nackaerts and colleagues (2012) and Alaerts and colleagues (2011) studies. Participants watched a series of short movies (duration of 3 s), representing point light displays (PLDs) of white dots against a black background. Participants completed two testing sessions; one consisting of the biological motion recognition (BMR) task with a 2-choice control-test; and the other consisting of the emotion recognition (ER) task and a 4-choice control-test. All of the PLD-movies were presented on a computer. Participants sat at a viewing distance of approximately 50 cm from the screen. Standardized instructions were provided verbally and on the monitor at the start of each test. A set of practice trials was presented only for the BMR task.

For the BMR task, participants were presented with a series of PLDs that either depicted a person's movements ('biological motion') or did not depict a person's movements ('scrambled'). Participants had to indicate as fast and accurate as possible whether the presented PLDs represented "a person" or "not a person". The response options (person, no person) will be indicated on the respective response buttons. For the ER task, participants were presented with a series of 144 movie trials. Each trial will consist of a 'prime' PLD, followed by a 'target' PLD. Participants were asked to indicate as fast as possible whether the presented point light figure in the 'target' movie performed the displayed action in a different 'emotional state' compared to the point light figure in the 'prime' movie. The emotional state of the target could be indicated as (i) happier, (ii) sadder, (iii) angrier, or (iv) not different, from the prime. The four response options (happier, sadder, angrier, no difference) will be indicated on the respective response buttons on the keyboard.

## Procedure

Data collection in Malaysia was carried out by the Malaysian researcher while Australian data was collected by a research assistant from Monash University Clayton Campus, Australia.

Volunteered participants were first given the consent form to complete. It indicates their consent in taking part in this study and to indicate that they understand that information that they provide will be kept confidential. Next, they were given the Beck Depression Inventory (BDI), the Self Construal Scale (SCS), the Individualism-Collectivism scale (IndCol), the emotion Regulation Questionnaire (ERQ) and the WHO Quality of Life Scale (WHO-QOL) to complete. Secondly they will be required to complete the facial recognition task (FER). Then they complete the biological motion recognition task (BMR) and lastly, the emotion recognition task (ER).

## Results

### Hypothesis 1

The relationship between each of the three tasks (FER, BM and ER) and depressive symptoms was investigated using Spearman's Rho correlation coefficient. Preliminary analyses were carried out to ensure that there was no violation to the assumption of normality, linearity and homoscedasticity for each variable. There was no significant relationship between each of the tasks with depressive symptoms.

Table 1. Correlation between BDI and tasks

Variable	BDI	FER	BM	ER
BDI		.216	-.002	.488
FER			-.099	-.014
BM				-.191
ER				

## Hypothesis 2

The differences between Australians and Malaysians in each of the three tasks were analyzed using the independent samples t-test and the Mann-Whitney U test. The analysis showed that there were no significant differences between Australians and Malaysians in all three tasks.

Table 2. Mann-Whitney U test comparing Australians and Malaysians in the BM task

Variable	Mean Rank		
	Australians	Malaysians	z(37)
BM	16.97	20.92	-1.11

Table 3. Independent Sample t-test comparing Australians and Malaysians in the FER and ER task

Variable	Mean Scores		
	Australians	Malaysians	t(36)
FER	27.05	29.84	-1.328
ER	62.47	64.78	-.847

## Hypothesis 3 & 4

The t- test and Mann-Whitney U test was used to investigate if there were cultural differences between Australians and Malaysians in terms of self-construals and cultural orientation.

The t-test analysis showed that there was a difference between Australians and Malaysians in terms of the interdependence self-construals,  $t(36)=-4.514$ ,  $p=.001$ . Malaysians ( $M=81.47$ ,  $SD=7.68$ ) had higher interdependence scores than Australians ( $M=68.68$ ,  $SD=9.67$ ). Hence, Malaysians were more interdependent than Australians.

For cultural orientation, the t-test showed that there were differences between Australians and Malaysians in both subscales of the IndCol,  $t(36)=-3.504$ ,  $p=.001$  (collectivism) and  $t(36)=-2.927$ ,  $p=.006$  (individualism). Malaysians (individualism- $M=70.00$ ,  $SD=8.72$ ; collectivism- $M=74.10$ ,  $SD=8.32$ ) had higher individualism and collectivism scores than Australians (individualism- $M=62.05$ ,  $SD=7.99$ ; collectivism- $M=65.53$ ,  $SD=8.31$ ). Hence, Malaysians have more individualistic and collectivistic orientation than Australians.

Table 4. Independent t-test comparing Australians and Malaysians

Variable	Mean Scores		
	Australians	Malaysians	t(38)
Interdependence	68.68	81.47	-4.514**
Collectivism	65.52	74.10	-3.504**
Individualism	62.05	70.00	-2.927**

Note. \*\* $p<0.01$

Table 5. Mann-Whitney U test comparing Australians and Malaysians

Variable	Mean Rank		z(38)
	Australians	Malaysians	
Independence	17.26	21.74	-1.243**

Note. \*\*p<0.01

### Further Findings

The t-test also showed that there were differences between Australians and Malaysians in the environment subscale of the WHOQOL-BREF,  $t(36)=5.224$ ,  $p=.001$ . Australians ( $M=43.00$ ,  $SD=3.73$ ) scored higher than Malaysians ( $M=28.68$ ,  $SD=2.40$ ). Therefore, Australians had better quality of life in terms of their environment than Malaysians.

Similarly, the Mann-Whitney U test showed that there were differences between Australians and Malaysians for the WHOQOL overall QOL scores. Australians (Mean Rank=23.61) scored higher than Malaysians (Mean Rank=15.39). Hence, Australians perceive that they have a better overall quality of life than Malaysians.

On the ERQ, the t-test showed that there were differences between Malaysians and Australians in the reappraisal subscale. Malaysians ( $M=31.21$ ,  $SD=5.59$ ) scored higher than the Australians ( $M=21.21$ ,  $SD=9.99$ ). Therefore, Malaysians were more likely to use cognitive reappraisal strategies than Australians.

The Mann-Whitney U test showed that Malaysians (Mean Rank= 24.21) had higher BDI scores than Australians (Mean Rank=14.79),  $U=91.00$ ,  $p=.009$ . Malaysians experienced more depressive symptoms than Australians.

Table 6. Mann-Whitney U test comparing Australians and Malaysians

Variable	Mean Rank		z(38)
	Australians	Malaysians	
Overall QOL	15.39	23.61	-2.34*
BDI	24.21	14.79	-2.62**

Note. \*p<0.05

\*\*p<0.01

Table 7. Independent Sample t-test comparing Australians and Malaysians

Variable	Mean Scores		t(38)
	Australians	Malaysians	
Environment	34.00	28.68	5.224**
Reappraisal	21.21	31.21	-3.807**

Note. \*\*p<0.01

### Conclusion

The results show that Malaysian Malays are not only an interdependent and collectivistic culture but also independent and individualistic one. The Australian Caucasians have more depressive symptoms while the Malaysian Malays have better overall quality of life despite having poor environment factor. Also, the results

showed that more Malaysian Malays use cognitive reappraisals as a method for emotion regulation. No significant difference was found between Australian Caucasians and Malaysian Malays in all three tasks and between the three tasks and depressive symptoms.

What was found in terms of the tasks proves that the ability to perceive emotion from faces and body movements are similar across the two cultures. This concurs with previous studies and the claim by Darwin stating that expressions are universal (Darwin 1872; Pica, Jackson, Blake, & Troje, 2011).

This, in turn also supports the theory, Biocultural Model of Emotion, by Matsumoto & Hwang (2012). They developed this model to explain the three dimensions of emotions and one of the dimensions is priming reactions. Priming reactions are spontaneous emotional reactions to stimuli which include expressive behaviour and changes in physiology. This domain is mainly influenced by biology and has very little or no influence of culture.

Cognitive reappraisal is a method in which people reevaluate their thoughts and change it which then affects their feelings. According to John & Gross (2004), those using cognitive reappraisal has better well-being. This can explain the results of the Malaysia sample which has higher overall quality of life scores.

In conjunction with that, the higher scores of the Malaysian Malays in the reappraisal domain may be explained by their personality type. The sample collected may be dominated with individuals with a predisposition for using cognitive reappraisals instead of emotion suppression. Personality may have come into play – collectivism and individualism<sup>1,2</sup>

Globalization is a huge phenomenon in the modern world. According to Hong and Chiu (2001), as culture is an entity that is dynamic and can change over time. As such, the influence of globalization can cause a shift in the cultural dimensions. Individuals from one culture can absorb values and thinking patterns from other cultures which then leads to a change in that culture. Perhaps this is what is happening in the Malaysian Malay culture. There is a slow shift in dimension which can explain the equally higher scores of both individualism and collectivism scores. Hong and Chiu (2001) also explained that although overall the culture may be oriented towards one cultural dimension, there may be within culture variations that may explain this as well.

### **Strengths and Limitations**

One of the strengths of this study is the dispersed occupational demographics of the Australian Caucasian participants. Not only that, the stimuli used in this study have been used in previous studies hence it is a well-established stimuli.

On the other hand, the limitations of this study are the low sample size and the high numbers of students in the Malaysian sample. The low sample size may have contributed to the non-significant results due to low power.

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### *Coping Strategies of Female Adolescents Living with HIV*

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#### **Abstract**

This paper aimed to explore coping strategies in female adolescents living with HIV. This was a qualitative case study methodology and the participants were female adolescents living with HIV, who acquired HIV from maternal, clinical and antiretroviral follow up at Srinagarind Hospital, Khon Kaen, Thailand. Research tools were a general information interview and coping strategies was collected by semi-structure in-depth interviews. This paper was conducted coping strategies in 3 dimensions that were personal, family and school contexts. The computer program atlas.ti was used for analyze the results.

Results revealed that coping strategies related to self-esteem, warmth of family and parents) death. Having self-esteem and low self-esteem were lead coping strategies in suitable or unsuitable way. Warmth of family related to coping strategies. Parent(s) death related to HIV female adolescents. Have not any parents since born shown suitable or unsuitable coping. Adolescent who lived with mother, she had warm family used suitable coping. An adolescent who still had father but he stayed with his new family. She had not warm family with staying with grandmother. Although staying at the orphanage might feel uncomfortable without freedom, the study did not show the serious problems from the participants.

Keywords: Coping strategies, female adolescents, HIV

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## Introduction

In 1996, 22.6 million people in worldwide infected with HIV/AIDS. 1 Million of them were children. Their ages were less than 15 years. 90 Percent of those children were HIV infected from maternal (Phanupak, P., 1997). Many children grew up and Oberdorfer, P., (2009) found problems in HIV infected adolescents, which were medical problems and psychosocial problems, for example, long period drugs taking, drugs boring, neural effects from drugs, face and body changing from fat position moving, low self-esteem and depression. Adolescent is on a critical period, physical and mental will start to change (Chanem, S., 2001). HIV infected adolescents from maternal were different from other HIV infected adolescents because the HIV infected from maternal would have not full grown body. Some adolescents grew slowly in physical and intelligent development. Some adolescents had psychosocial problems from parent death, which was made the different HIV infected from maternal and the other HIV infected adolescents from drugs used or sex (Oberdorfer, P., 2009). The children and youths who grown up with HIV in their body had stigma since they born (Hanmontree, S., 2012). Female adolescents HIV-infected worried about their study, career, acceptance from a couple, and pregnant adolescents worried about HIV transmission to their new born. Oberdorfer, B. (2008), found that 13 percents of HIV-infected children in 15 years average age had depression. 13 percents of them thought about suicide and 5 percents had ever suicide.

The study aimed to explore the coping strategies in female adolescents living with HIV. The result of this study would help the HIV-infected care givers and the counselors understanding more about HIV-infected female adolescents' experiences and coping strategies. This study would have advantage to development health and mental in HIV-infected adolescents.

## Literature Review

Human Immunodeficiency Virus or HIV can be infected 3 ways by having sex, blood and acquired from maternal (Samitaketarin, S., 2003). Some HIV-infected adolescents, they took antiretroviral drugs for a long time which made them bored to take the drugs always and in time. Some Thai HIV-infected female adolescents were afraid to have a boyfriend because of HIV acceptance. Yoddamnern, B. (2006) found that some HIV infected females did not brave to tell about their HIV infection and someone learned to guess how their couples would think or react before telling HIV status. Moreover many HIV-infected adolescents from maternal did not have any parents; most of them stayed at orphanages or their relatives' houses. By many problems brought them to cope in unsuitable ways which were not good for their health and their life.

This study used 2 focused coping strategies by Lazarus & Folkman (1984) to explain participants' situations from the interview. There were problem-focused coping and emotional-focused coping. Problem-focused coping have 2 items, which are confrontive coping and planful problem solving. Emotional-focused coping have 6 items, which are positive reappraisal, accepting responsibility, self-controlling, seeking social support, distancing and escape-avoidance. From literature review about coping strategies found HIV-infected adolescents coped by listening to radio, thinking in positive, making their own decision, staying close to the important person

in life, eating, watching TV, day dreaming, sleeping, trying to solve problem and praying. Some used coping unsuitable ways which were drinking alcohol and taking illegal drugs (Lewis CL, Brown SC, 2002). Some HIV infected did not understand the importance of taking care themselves and they ignored taking anti-viral pills and this may cause drugs resisting action and lead to HIV protection and treatment failure (Hanmontree, S., 2012). From the study of (Oberdorfer, P., 2009) found that nearly a half of adolescents in Thailand accepted that they had sex experiences, many of them had sex without condoms, and 24 percents had ever drink alcohol.

A multidisciplinary which related to HIV-infected adolescents would make understand and make clear about the adolescents' coping. The understanding is very important that may help the adolescents to coping in suitable ways and have better life.

## **Methods**

The study and interview instruments were approved by the Khon Kaen University Committee for Human Research (KKU-EC). All subjects provided written consent before participation. The purpose of this study is to explore the ways of coping in female adolescents living with HIV. The study was a qualitative case study, which was conducted among HIV-infected female adolescents in age between 18-24 years. There were 4 participants by purposive sampling. They were acquired HIV from maternal, mainly receive the treatment in HIV-infected children in Srinagarind Hospital. The research instruments of this study were a general information interview and a semi-structure in depth interviews. The coping strategies based on Ways of Coping, designed by Lazarus and Folkman (1984). This study analyzed the coping in 2 ways that were problem-focused coping and emotion-focused coping. The 2 items of problem-focused coping are confrontive coping and planful problem solving. The 6 items of emotion-focused coping are positive reappraisal, accepting responsibility, self-controlling, seeking social support, distancing and escape-avoidance. The interview was recorded and wrote word by word. Coding and interpreting was used to analyze coping strategies of participants, and the study used atlas.ti computer program to help for analyze the results.

## **Results**

From the interview, general information revealed that 4 HIV-infected female adolescents, their age range were 18-20 years. The average age was 19.5 years. A participant was 18 years and 3 participants were 20 years. All had been informed of their HIV status. The first participant was 20 years, graduated in Grade 6. She was a Muslim. Her parents passed away. Her weight was 37 kilograms and her height was 151 centimeters. She was started on antiretroviral drugs for almost 20 years. Her health was not well; she was tired when she walked. She had a 10 months baby with no HIV-infected. She lived with her husband's family. She lived sometimes in the orphanage when she was sick. She had no job. Her income was from her husband, who sold charcoals. The second participant was 20 years, graduated Vocational Certificate and was studying in High Vocational Certificate. She was a Christian. Her parents passed away. Her weight was 47 kilograms and her height was 152 centimeters. She was started on antiretroviral drugs for 15 years. She had well healthy and she loved playing football. She lived in an orphanage. She had income

from the orphanage 50 baht a day (only the school day). She was single, who sometimes had sex experiences. The third participant was 20 years, graduated Vocational Certificate and was studying High Vocational Certificate in computer graphic. She was Buddhism. Her weight was 50 kilograms and her height was 170 centimeters. She was started on antiretroviral drugs for almost 3 years. She had well healthy. She lived with her mother. Her mother gave her 100 baht a day, and she was training her job and had income 200 baht a day. She was single and had no sex experiences. The fourth participant was 18 years, graduated junior high school. She was a Christian. Her weight was 54 kilograms and her height was 155 centimeters. She was started on antiretroviral drugs for 18 years. She had well healthy, but she had a problem about her eyes. She had got red eyes-infected. She still had father, but he had a new family and lived far away from her. She lived with her grandmother. She worked as a cosmetic seller at a department store. Her income was 11,000 baht a month. She was single mom, who had a one year child with no HIV-infected.

Results from the coping interviews in 3 dimensions: (1) the first dimension was personal revealed that coping strategies used by the first participant were both problem and emotion-focused coping, which were confrontive coping, accepting responsibility, self-controlling, seeking social support and distancing. Coping strategies used by the second participant was only emotion-focused coping, which was escape-avoidance. Coping strategies used by the third participant were both problem and emotion-focused coping, which were planful problem solving and escape-avoidance. Coping strategies used by the fourth participant were both problem-focused coping and emotion-focused coping, which were confrontive coping, planful problem solving, positive reappraisal, seeking social support and escape-avoidance. (2) The second dimension was family revealed that coping strategies used by the first participant were both problem and emotion-focused coping, which were confrontive coping, planful problem, seeking social support, distancing and escape-avoidance. Coping strategies used by the second participant were both problem and emotion-focused coping, which were confrontive coping, positive reappraisal and seeking social support. Coping strategies used by the third participant were both problem and emotion-focused coping, which were planful problem, positive reappraisal and seeking social support. Coping strategies used by the fourth participant were both problem and emotion-focused coping, which were confrontive coping, accepting responsibility, seeking social support, distancing and escape-avoidance. (3) The third dimension was school context revealed. This dimension found that there were not too many coping strategies used by participants because any participants did not tell anyone at school about their HIV-infected. The first participant talked less about her school context so that problem and emotion-focused coping were not shown. Coping strategies used by the second participant was only emotion-focused coping, which were positive reappraisal and seeking social support. Coping strategies used by the third participant were both problem and emotion-focused coping, which were planful problem, positive reappraisal, accepting responsibility and escape-avoidance. Coping strategies used by the fourth participant were both problem and emotion-focused coping, which were planful problem, positive reappraisal and escape-avoidance. The pictures were shown ways of coping in each participant.

Ways of Coping	Dimensions		
	Personal	Family	School context
<b>Problem-focused Coping</b>			
1. Confrontive coping	√	√	
2. Planful problem solving			
<b>Emotion-focused Coping</b>			
3. Positive reappraisal			
4. Accepting responsibility	√	√	
5. Self-controlling	√	√	
6. Seeking social support	√	√	
7. Distancing	√	√	
8. Escape-avoidance		√	

Figure 1: The first participant's coping

Ways of Coping	Dimensions		
	Personal	Family	School context
<b>Problem-focused Coping</b>			
1. Confrontive coping		√	
2. Planful problem solving	√		
<b>Emotion-focused Coping</b>			
3. Positive reappraisal	√	√	√
4. Accepting responsibility		√	
5. Self-controlling		√	
6. Seeking social support		√	√
7. Distancing			
8. Escape-avoidance		√	

Figure 2: The second participant's coping

Ways of Coping	Dimensions		
	Personal	Family	School context
<b>Problem-focused Coping</b>			
1. Confrontive coping	√	√	
2. Planful problem solving	√		√
<b>Emotion-focused Coping</b>			
3. Positive reappraisal	√	√	√
4. Accepting responsibility		√	√
5. Self-controlling			
6. Seeking social support	√	√	
7. Distancing			
8. Escape-avoidance	√	√	√

Figure 3: The third participant's coping

Ways of Coping	Dimensions		
	Personal	Family	School context
<b>Problem-focused Coping</b>			
1. Confrontive coping	√		
2. Planful problem solving	√		
<b>Emotion-focused Coping</b>			
3. Positive reappraisal	√	√	√
4. Accepting responsibility	√		
5. Self-controlling	√		
6. Seeking social support	√	√	
7. Distancing	√	√	
8. Escape-avoidance	√	√	√

Figure 4: The fourth participant's coping

## Discussion

The coping interview was analyzed by coding and interpreting the sentences from interview questions. The coping strategies based on Ways of Coping, designed by Lazarus and Folkman (1984) were problem-focused coping and emotion-focused coping. The 2 items of problem-focused coping are confrontive coping and planful problem solving. The 6 items of emotion-focused coping are positive reappraisal, accepting responsibility, self-controlling, seeking social support, distancing and escape-avoidance. The coping strategies that the participants used in the situations will be discussed below:

### **The First Participant**

From the interview was shown that the first participant used any coping items except planful problem solving and positive reappraisal. Personal dimension, the first participant used accepting responsible, which had shown by the sentences from the interview that “I stayed home with doing nothing.” “My father in-law told me that I did nothing at home.” Some statements from her family “If you don’t take drug, you will die.” The word hurt her. Her coping shown that she had low self-esteem. The important person in her life was her daughter. She tried to have drugs adherence because of her daughter but she forgot to take them sometimes. That might because she need positive word to encourage her. She used self-controlling for financial, used seeking social support by asking her grandmother in-law when she had problems with her husband and her mother in-law. For distancing, she coped by crying and mad at herself. She felt neglected when saw the others had parents but she had none.

Family dimension, the first participant mostly used escape-avoidance to cope. From her statement, “I thought I will have money to help my mother in-law for her debts.” “I preferred to stay in the orphanage instead of staying home because I didn’t want to talk with people and I didn’t want to face problems at home. I wanted to stay with myself.” The family that she stayed was her husband family. Her husband mostly gave his income to her, but her mother in-law often asked her for money. She had debts and she often played cards. The first participant was coped this situation by giving money to her grandmother in-law to keep. And for the school context, the participant talked less about this because she graduated Grade 6. She was in the orphanage and decided to move out. So her husband signed to be the parent to take care her. In fact, this doesn’t mean that she enjoyed her life outside the orphanage. She still went back to the orphanage often when she got sick. One of the reasons that she preferred to stay at the orphanage longer than usual was about the family was not too warm enough for her.

School context dimension, the first participant talked less about her school context because she was out of school for too long. Her health was not so well; she got tired to walk to everywhere. Nobody at school knew about her HIV blood, only her family and people in the orphanage knew it.

### **The Second Participant**

The second participant used any coping items except distancing. For personal dimension, she took drugs adherence and her health was so well. She loved to play soccer. When she got tired from playing soccer, she used confrontive coping by taking a rest and taking deep breaths in and out. Not too many serious things had happened in her life. Many times from asking questions about her problem, she still had no idea about the problem in her life. Instead she shown her positive thinking, for example, “I don’t like to have antiretroviral drugs, they are so bitter. I really don’t like to have any drugs, but I know that I have HIV and I need to take drugs. I just drink a lot of water after taking drugs.” “When my friends at school asked me for my drugs that I was taking, I just told them that was drugs for my beauty.”

For family dimension, the second participant stayed at an orphanage. Although she got only 50 baht for her school day, she didn't show that was the problem. She said she had money enough to spend and not too many things to buy. Instead, she can keep money. When she had problems, she consulted the officers at the orphanage. She said mostly she was the counselor for her friends in the orphanage. The officers at the orphanage took good care to her, for example, when it was time to take drugs, they would rang the bell to let everyone knew about the time to take drugs. The statement shown about her self-awareness by seeking social support, "there were enough food for me to eat and had many things to do here," "the head of the orphanage he said to me to be strong and study hard so I can take good care of myself."

For school context dimension, the second participant mostly used escape-avoidance to cope. For example, she kept about her blood in secret and tried not to show friends and teachers at school about HIV status. She had a boyfriend without telling him her secret because she afraid that he would leave her.

### **The Third Participant**

The third participant used any coping items except controlling and distancing. The fourth used every coping item. Personal dimension, she took drugs adherence and her body was so well and looked healthy. She looked normal as the others who have no HIV. For problem solving focused coping, she used planful problem solving by planning about her new job and tried to find other jobs on the Internet because she wanted a new car she would be prepared money for that. Before going out with friends from school, she would remind herself to turn off the alarm phone about her drugs time. Instead she looked at the clock many time until it was the time for drugs. If any friends asked her about the drugs she would tell them that they are drugs for anemia. For taking her drugs, she had alarm clock to remind her in the morning although she didn't want to awake, she must awake to take drugs. For confrontive coping, she stood her ground and fought for what she wanted. She had positive thinking that having HIV made her to take good care of herself.

For family dimension, she had her mother with her and this might be the reason why she had strong mind and acted normal like people without HIV. She said that she was happy staying with her mother. For seeking social support, she talked with her mother, her brother and her friends. She felt that her mother was like her friend, she can consult everything with her. In the other hand, her mother consulted her sometimes. However, only her family knew about her HIV blood, no one at school knowing about her blood.

School context dimension, she thought for telling her close friends about this but she afraid that her friends might refuse her. She thought about her future if she had a boyfriend.

### **The Fourth Participant**

The fourth participant used every coping item. Personal dimension, she stayed with her grandmother in a province which was not her hometown. Her dad still alive but he had new married and live in other province far away. Her dad called her



grandmother only when he needed money. The fourth participant had problem to take drugs because some of the drug supposed to put in the refrigerator. She didn't have any refrigerator in her house so the pills melt and sticky, so the pills tasted bitter. She coped by using escape-avoidance. She said, "I just take the pill sometimes or thrown them away. I don't want it anymore, its taste weird and make me want to throw up." And from the same problem, she used seeking social support by asking the doctor to give her a new set of drugs. She used positive reappraisal, "I sometimes took drugs but sometimes not." For her confrontative coping, she quit her school and decided to work because of her son. When she had problem about her red eyes, she went to clinic for medicine.

In family dimension, she coped by accepting responsibility. Her statement, "my salary was 11,000 baht, I gave my grandmother 10,000 baht and I had left 1,000 baht. I did asked my grandmother for my salary, may I have 1,000 more. But she said no, so I just let she has my money.

School context dimension, since she had a baby. She stopped her school and went to work. She used escape-avoidance by talked less to her school friends. She didn't when they gossiped. Nobody at the school knew about her HIV-infected.

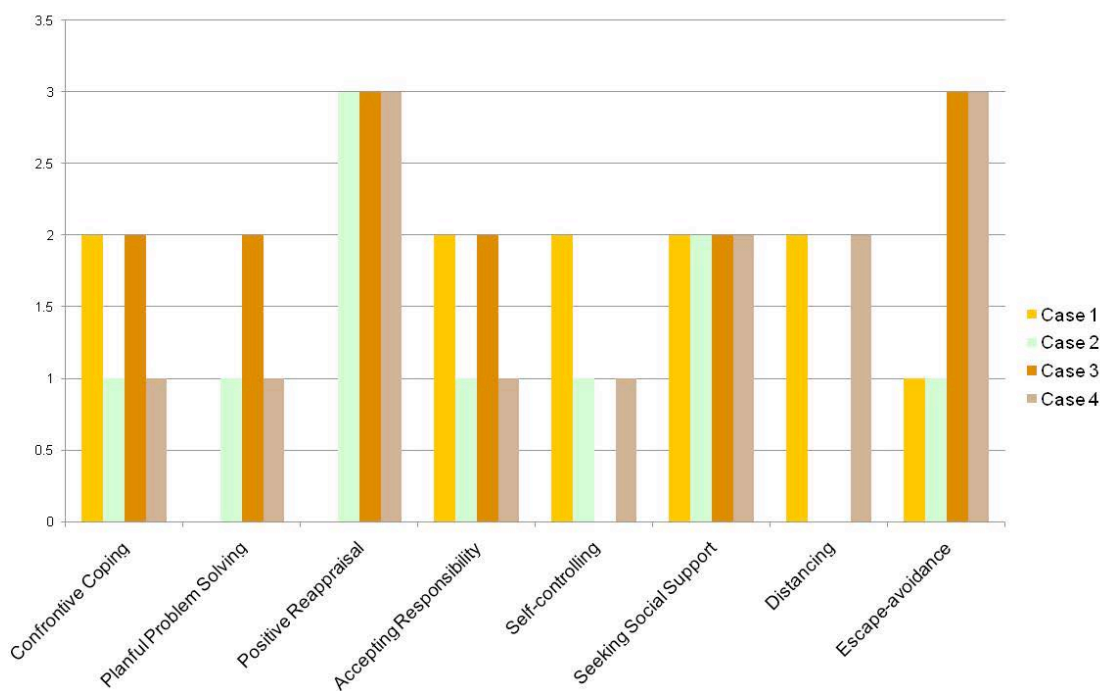


Figure 5: Coping strategies in 4 participants

The participants forecast the result from coping that which way safe or unsafe. The study show that some participant decided to cope in suitable way, but some were not. They knew that taking drugs help them for strong body, but some participants decided to escape and avoid having drugs. So self-esteem was related about their coping. The participants with self-esteem were not only having good drugs adherence, but also thought in positive. Although a participant stayed at an orphanage, she enjoyed staying there. Her coping' decision was suitable ways. Another participant who stayed with her mother, she was very happy staying with her mother. Her coping'

decision was also in suitable ways. Self-esteem refers to a person believe that one's own worth or abilities. For the female HIV infected adolescents, having one parent is better than having no parents. They infected HIV since they born so many of them stayed at the orphanage or with their relatives. Their family aliment might not warm enough as having parents. Having a parent might support their self-esteem. For example, a participant who had her mother with her, she coped in suitable way. On the other hand a participant who stayed with her father, the study found that she had low self-esteem. She was not good in drugs adherence.

### **Conclusion**

The study found that the participants' coping strategies, self-esteem, warmth of family and parent death are related. Having low self-esteem lead coping strategies in unsuitable. In the other hand, having self-esteem lead the participants to cope in suitable way. Warmth of family related to coping strategies, problems in family lead the participants using emotional-focused coping; seeking social support, distancing, escape-avoidance. Parent(s) death related to HIV female adolescents. The adolescents who had no parent since they born, they would learnt about warm family by parents. They grew up by their relations or orphanage instead. In the other side, the adolescent who had only mother, she had warm family without fear. By the way the adolescent who had only father but did not stay with him, he lived with his new family. She stayed with grandmother with not warm family. Although staying at the orphanage might feel uncomfortable without freedom, the study did not show the serious problems from the participants.

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***Effects of Job Autonomy and Positive Psychological Capital on Job Performance of Banking Employees: Mediating Role of Intrinsic Work Motivation***

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**Abstract**

Factors that affect employee job performance have long been a topic of interest to industrial and organizational psychologists. There are numbers of studies which explored the relationship between motivation and job performance. However, there has been little empirical research on the joint impact of employees' personality factor and autonomy aspect of job itself on job performance via their intrinsic work motivation. Therefore, the purpose of the study is to explore how job autonomy and positive psychological capital help organizations promote employees' performance through intrinsic work motivation. Data is collected from 403 employees working in banking sector in Bangkok, Thailand. Structural Equation Modelling (SEM) was employed to examine the effects of job autonomy, positive psychological capital and intrinsic work motivation on job performance. Results of the analysis indicated that the estimated model in this study is acceptable based on its score of the goodness of fit index. The structural relationship showed that job autonomy, positive psychological capital and intrinsic work motivation significantly related to job performance. In addition, results from the current study showed that intrinsic work motivation fully mediates the relationship between job autonomy and job performance, and partially mediates relationship between positive psychological capital and job performance. Implications of the study are discussed, together with limitations and suggestions for future research.

Keywords: job performance, intrinsic work motivation, job autonomy, positive psychological capital

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## Introduction

Job performance is also one of the well researched topics for many years. Many empirical studies have been conducted to address factors that contribute to the employee's job performance.

Job autonomy is considered as one of the most important characteristics of work (Cordery & Wall, 1985). Job autonomy refers to the degree of discretion employees have over important decisions in their work (Hackman & Oldham, 1980). When Job autonomy is increased, employees have to recognize their new opportunities, think about task-related objectives, processes, strategies, and make decisions about how to perform tasks (Langfred & Moye, 2004; Morgeson & Humphrey, 2006). Previous researches have been examined the effect of job autonomy on organizational commitment (Naqvi, Ishtiaq, Kanwal, & Ali, 2013), job satisfaction (Nguyen, Taylor, & Bradley, 2003) and job performance (Saragih, 2012; Langfred & Moye, 2004)

With the increasing attention being focused on positivity in the workplace. Positive psychological capital is one of the new research areas of interest to researchers of organizational behavior and human resources (Avey, Reichard, Luthans, & Mhatre, 2011). Positive psychological capital, or simply PsyCap has been conceptually identified as consisting of four positive psychological resources of self efficacy, hope, optimism, and resilience (Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007). According to Luthans, et al. (2007) PsyCap can be regarded as a competitive advantage through investment on people. Future more, several studies (e.g., Avey et al., 2011; Luthans, Avey, Avolio, Norman & Combs, 2006; Luthans, Avey, Avolio & Peterson, 2010) suggested that PsyCap lead to job performance.

However, although many researched examined the direct effects of job autonomy and PsyCap on job performance, very few studies have examined the mechanisms that perform mediating role in this relationships. In fact, multiple researchers claim intrinsic work motivation to be an important performance determinant (e.g., Deci, 1976; Harackiewicz & Sansone, 2000). Intrinsic work motivation is defined as "the degree to which a person wants to work well in his or her job, in order to achieve intrinsic satisfaction" (Warr, Cook, & Wall, 1979 p. 135). In addition, based on theoretical model of work motivation proposed by Gagne & Deci (2005), social environment and individual differences are the key antecedents of motivation and job outcomes. Thus, the aim of this study is to focus the joint effects of job autonomy and PsyCap on job performance through intrinsic work motivation mechanisms in Thailand banking context.

## Literature Review And Hypotheses

Relationship of job autonomy to job performance.

Saragih (2012) suggested that employees who have greater job autonomy will consider themselves skillful and creative in accomplishing their tasks. Further, increased job autonomy enables employees to break out of a routine and to find the best solution along the way (Shalley & Gilson, 2004). Positive association between job autonomy and job performance is also established in the literature (Saragih,

2012;Gellaty & Irving,2001, Langfred & Moye,2004 ). Therefore, it is hypothesized that:

*H1 Job autonomy should be positively related to job performance.*

Relationship of PsyCap to job performance.

Individuals higher in PsyCap can be expected to display behavior directed toward accomplishing goals and thereby leading to enhanced performance, when compared to individuals lower in PsyCap (Avey et al., 2011). A growing number of studies have clearly demonstrated that PsyCap is significantly related to Job performance (e.g., Luthans, Avolio, Avey & Norman, 2007; Luthans et al.,2006; Luthans, Avey, Avolio & Peterson.,2010). In their meta-analysis, Avey et al. (2011) found PsyCap had significant positive relation on job performance. In addition to this, Luthans and his colleagues (Luthans et al., 2006) have found that PsyCap is a core construct that predicts performance and satisfaction better than any of the individual strengths that make it up. Therefore, it is hypothesized that:

*H2 Positive Psychological capital should be positively related to job performance.*

Relationship of Intrinsic work motivation to job performance

There is also empirical evidence to support the relationship between intrinsic work motivation and job performance.( Karatepe & Tekinkus, 2006; Grants,2008; Guo, Yun, et al., 2014). Accordingly, self-determination theory suggests that when intrinsic motivation is high, prosocial motivation will be positively associated with persistence, performance, and productivity (Grants,2008). In addition, the 40 years meta-analysis based on school, work, and physical domains by Cerasoli, Nicklin & Ford (2014) demonstrates that intrinsic motivation is a medium to strong predictor of performance(  $\rho=.21-.45$ ). Therefore, it is hypothesized that:

*H3 Intrinsic work motivation should be positively related to job performance.*

Intrinsic work motivation as a mediator between job autonomy and job performance.

Motivation is one mechanism that explains the relationship between job autonomy and performance (Langfred & Moye, 2004). Following job characteristics model (Hackman & Oldham,1976), job autonomy leads to the critical psychological state of “experienced responsibility for outcomes of the work,” which in turn leads to outcomes such as high work effectiveness and high internal work motivation.

A conceptual linkage between job autonomy, intrinsic work motivation and job performance can be drawn from research by Piccolo & Colquitt (2006). Their study examined the mediating role that the intrinsic work motivation has between core job characteristic (variety, identity, significance, autonomy, and feedback) and job performance. Likewise, Humphrey, Nahrgang, & Morgeson (2007), have provided meta-analytical evidence that perceived job autonomy is positively related to important work outcomes, such as performance, job satisfaction, organizational commitment, and intrinsic work motivation. Therefore, it is hypothesized that:

*H4 Intrinsic motivation should mediate the impact of job autonomy on job performance.*

Intrinsic work motivation as a mediator between PsyCap on job performance.

Although we hypothesize a direct relationship between PsyCap and Job performance, we are also interested in exploring whether intrinsic work motivation in management mediates these relationships. Two other conditions are required for mediation. First, Intrinsic motivation must be related to PsyCap. In support this view, Siu, Bakker, & Jiang (2014) in a sample of university students found that intrinsic motivation has partial mediation effect on study engagement. Second, intrinsic motivation must be linked to job performance; this has been shown in previous study (Piccolo & Colquitt, 2006; Zapata-Phelan, Colquitt, Scott, & Livingston, 2009). Furthermore, Joo, Jeung, & Yoon (2010) found that intrinsic work motivation partially mediated the relationship between core self-evaluations and job performance. Thus, Intrinsic work motivation might be a mechanism that mediates associations between PsyCap and job performance.

*H5 Intrinsic motivation should mediate the impact of job autonomy on job performance.*

## **Research method**

### **Participants**

Participants were bank employees employed by a large regional bank in Thailand. Survey questionnaires were distributed to 480 employees. Questionnaires were provided to employees and collected one week later by research assistants. We received responses from 403 (80% response rate) employees. All respondents were informed that the survey was being conducted for academic research purposes in an attempt to better understand issues that affect people at work. To ensure confidentiality, the respondents were instructed to seal the completed questionnaires in the envelopes and return them directly to us on site. Most respondents were female (73.20%), around 26-30 Years old (38.71%), were having bachelor's degree (65.76%) and 47.89 % of them were having working experience less than 5 years.

### **Measurement**

*Self-report job performance.*

Two components of job performance were measured based on organization's performance appraisal system. These components included (a) output: a rating of employee performance relative to quantitative and qualitative indicators of the organization. (b) competency: an average of ratings on items describing behaviors related to core values of the organization. A sample item was "My boss is never disappointed in the quality of work that I provide". The job performance scale consisted of 41 items, each item was answered via a 5-point Likert scale (1 = strongly disagree to 5= strongly agree). The overall Cronbach's alpha was .959 in the study.



*Intrinsic work motivation.*

This questionnaire was developed by Choochom, Sucaromana, & Chuawanlee (1999). The questionnaire consists of 30 questions and measured five dimensions of challenging, interest-enjoyment, autonomy, need of competence and determination. Each item was answered via a 5-point Likert scale (1 = strongly disagree to 5= strongly agree). A sample item was “I want my work to provide me with opportunities for increasing my knowledge and skills”. The overall Cronbach’s alpha was .929 in the study.

*Job autonomy.*

Job autonomy was measured with 27-item adapted from Morgeson & Humphrey (2006). It consisted three dimensions – work schedule, work decision, and work method. Each item was answered via a 5-point Likert scale (1 = strongly disagree to 5= strongly agree). A sample item was “The job allows me to make my own decisions about how to schedule my work”. The overall Cronbach’s alpha was .951 in the study.

*Positive psychological capital (PsyCap).*

PsyCap was assessed using the PsyCap scale developed based on Luthans and his colleagues’ concept of PsyCap (Luthans et al., 2007) comprised of self-efficacy, hope, optimism, and resilience. The scale consisted of 29 items. A sample item was “you are confident in your ability to solve problems”. The overall Cronbach’s alpha was .939 in the study.

**Results**

## Descriptive statistics

Means, standard deviations, correlations and Cronbach’s alpha coefficients among all the variables are presented in Table 1. The results for correlations showed that all variables were significantly related to each other. All measures demonstrated adequate levels of reliability (0.78–0.95).

Table 1: Means, standard deviations, Cronbach’s alpha and correlations of observed variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.sch	3.56	.61	(.88)	.												
2.dec	3.62	.60	.77**	(.86)												
3.met	3.62	.59	.79**	.84**	(.90)											
4.eff	3.85	.51	.46**	.46**	.51**	(.84)										
5.hope	3.88	.58	.51**	.50**	.56**	.75**	(.86)									
6.op	3.87	.49	.38**	.38**	.40**	.59**	.68**	(.78)								
7.re	3.82	.51	.43**	.41**	.41**	.65**	.71**	.66**	(.83)							
8.cha	3.70	.70	.39**	.39**	.40**	.49**	.55**	.35**	.53**	(.86)						
9.enj	4.17	.55	.39**	.34**	.38**	.52**	.61**	.52**	.52**	.47**	(.85)					
10.aut	3.98	.56	.39**	.34**	.39**	.42**	.46**	.41**	.36**	.43**	.62**	(.83)				
11.com	4.12	.54	.43**	.42**	.46**	.51**	.57**	.52**	.47**	.48**	.73**	.69**	(.90)			
12.det	3.78	.66	.29**	.31**	.33**	.39**	.43**	.33**	.40**	.54**	.36**	.30**	.33**	(.78)		
13.out	3.69	.51	.46**	.42**	.47**	.63**	.62**	.56**	.62**	.46**	.58**	.47**	.57**	.34**	(.91)	
14.comp	4.09	.61	.41**	.34**	.39**	.55**	.60**	.60**	.59**	.35**	.63**	.48**	.62**	.30**	.68**	(.95)

Note. Means, standard deviations, correlations and Cronbach's alpha. \*\* $p < .01$ ;  $n = 403$ ; sch = work schedule; dec = work decision; met = work method; cha = challenging; enj = interest-enjoyment; aut = autonomy; com = need of competence; det = determination; eff = self-efficacy; hope = hope; op = optimism; re = resilience; out = output; comp = competency

### Structural equation model assessment

Structural equation modeling (SEM) was used to test the hypothesized model. An initial model was estimated with maximum-likelihood method for estimating the path coefficients. Modification indices were used for modifying model to be good fit to the data. The overall final model appears to fit the data adequately ( $\chi^2 = 58.847$ ,  $df = 48$   $p$ -value = .136 RMSEA = .024, GFI = .980, AGFI = .955, RMR = .011). The direct effect of job autonomy on job performance is non significant, therefore hypothesis 1 was not supported. PsyCap has direct effect on job performance. ( $\beta = .66$ ,  $p < 0.001$ ), thus proving hypothesis 2. Moreover, the intrinsic work motivation has direct effects on job performance. ( $\beta = .30$ ,  $p < 0.001$ ), supporting hypothesis 3. Finally, indirect effect of job autonomy on job performance by mediating intrinsic work motivation was .06 ( $p < .05$ ) and PsyCap on job performance by mediating intrinsic work motivation was .20 ( $p < .001$ ), supporting hypothesis 4 and hypothesis 5. In summary, the results suggest that the three antecedents explained 86.60% of the variance in job performance. Direct and indirect effects are presented in table 2. Standardized path coefficients and overall model fit of the supposed structural model is shown in the figure 1.

Table 2: Total, direct, and indirect effects of job autonomy, PsyCap, Intrinsic work motivation, job performance.

Independent variable	Dependent variable	
	Intrinsic work motivation	Job performance
<b>Job autonomy</b>		
Direct effect	.21***	.02
Indirect effect	-	.06**
Total effect	.21***	.09*
<b>PsyCap</b>		
Direct effect	.65***	.66***
Indirect effect	-	.20***
Total effect	.65***	.86***
<b>Intrinsic work motivation</b>		
Direct effect	-	.30***
Indirect effect	-	-
Total effect	-	.30***

\*  $p < .05$  \*\*\*  $p < .001$

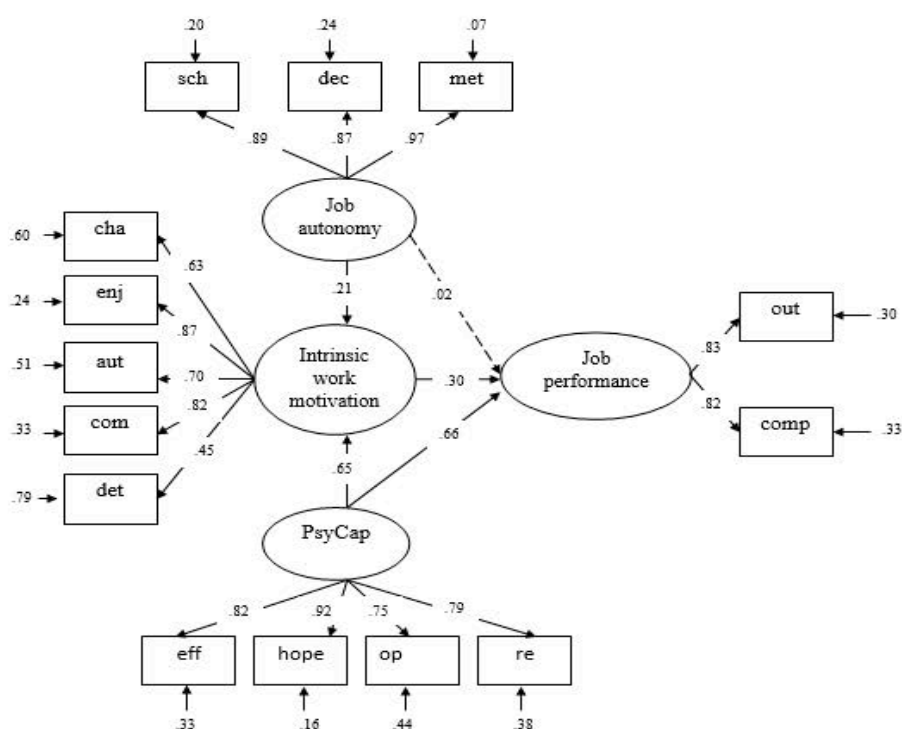


Figure. 1. Modified model (Final model)

## Discussion and conclusion

The present study was aimed to explore the joint impact of job autonomy and PsyCap on intrinsic work motivation and job performance towards organization. The findings revealed that all independent and mediator variables jointly and relatively contributed to job performance. One of the main important of this study is to emphasize the mediational role of intrinsic work motivation in the relationship between job autonomy, PsyCap and job performance. In general, our findings support the theoretical model of work motivation proposed by Gagné and Deci (2005), which suggested environmental factors and individual differences as a predictor of job outcomes, with that relation mediated by intrinsic work motivation.

Another important result of this study based on the non significant direct effect of job autonomy on job performance is similar to the finding of Joo et al. (2010). Although there is empirical support for the relationship between job autonomy and performance (e.g., Spector, 1986), the effect size is only modest ( $r = 0.26$ ). According to Hackman and Oldham (1976), autonomy leads to the psychological state of experienced responsibility for work outcomes, which in turn leads to outcomes such as high work effectiveness and high internal work motivation. Based on this rationalization it can be concluded that job autonomy would influence performance (high work effectiveness) through its effect on motivation instead of a direct influence on job performance. This result supports findings of Joo et al. (2010) and allows to better understanding how job autonomy is indirectly related to job performance. In fact, this research revealed an effect of fully mediation by intrinsic work motivation on job autonomy-job performance relationship, adding an important contribute to the literature.

The findings further revealed that PsyCap has direct effect on job performance suggesting that individuals with high levels of PsyCap are likely to display behavior directed toward accomplishing goals and thereby leading to enhanced performance (Avey et al., 2011). The result of this study was generally consistent with previous studies (Luthans et al., 2006; Luthans et al., 2010). Additionally, intrinsic work motivation partially mediates the relationship between PsyCap and Job performance. This result can be explained by the nature of PsyCap which is a high motivational propensity (Luthans et al., 2007).

This study has some limitations. First we draw our sample from banking employee. This limits the generalization of our results to other sample. Second, the study was conducted at one point in time, causal relationships among the variables cannot be established. Longitudinal studies should be employed to test the hypotheses. Finally, all the questionnaires which we used in this study were self-reports. Therefore, our results might have been influenced by the common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Future studies should collect data from multiple sources, and consider using objective data (e.g., actual sales volume) to measure job performance.

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*A Causal Model of Professional Nurse Engagement Using Organizational Nurse Engagement*

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**Abstract**

Employee engagement has become a hot topic in recent years. Many studies have been published that identify organizational factors that drive employee engagement. One of the important factors was organizational communication. The purpose of this study were: (a) to validate a causal model of professional nurse engagement with organizational communication as the mediator; and (b) to study the patterns of direct and indirect effect on professional nurse engagement via organizational communication. The research sample was 402 professional nurses from private hospitals in Bangkok, Thailand. The data were collected using questionnaires and were analyzed using descriptive statistics, correlation, and structural equation modeling (SEM). This study demonstrates how effect of constructive culture and transformational leadership on professional nurse engagement in private hospital using organizational communication as a mediator. Implications of the study are discussed together with limitations and suggestions for future research.

Keywords: Employee engagement, Constructive culture, Organizational communication.

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## Introduction

Current healthcare industries suffer from lack of workforce, especially professional nurses. This issue can be attributed to various reasons such as requiring constant interactions with patients, relatives, and other personnel at all levels, working in dangerous and potentially hazardous environments, working overtime and in night shifts, not having similar holidays as other jobs, and having organization policies and management that do not satisfy their needs (Sawangdee 2551). Because of the competitive environment and poor health insurance. Sawangdee (2553) further stated that continual self-improvement is needed for nurses to survive in this industry. As a result, burn out from work can arise, encouraging nurses to resign, transfer or get new jobs.

In addition to losing its desired revenues, leaving a job position open resignation can cause an organization to waste funds on public relations, advertisement, and human resources development (Sadangharn, 2555). Based on many studies, alleviations to this problem may be done by promoting employee engagement, which reduces burn out and thus, reduces voluntary resignation (Caponetti, 2012; Maslach et al., 2001; Sundaray, 2011; Ngobeni & Bezuidenhout, 2011; Sanglimsuwan et al., 2556). Especially in nurses, employee engagement is associated with lower mortality (Lanchinger & Leiter, 2006), better motivation and positivity (May, Gilson & Harter, 2004; Rothmann & Jr., 2010; Ram & Prabhakar, 2010), and higher work efficiency (Kompaso & Sridevi, 2010; Gruman & Sak, 2011; Falkoski, 2012;).

As a part of positive psychology, Employee engagement (EE) and its concepts were originally conceived in 1990 by Kahn (cited in Perrin, 2005). EE is defined as the expressions/feelings/connections? of an employee as part of/belonging to an organization. Engaged employees perform the given tasks with enthusiasm and express themselves through behavior, cognitive and emotional capability. In 2012, Soane et al. produced a model to measure employee engagement based on the 3 components of EE; intellectual engagement, social engagement and affective engagement (Kahn, 1990). Analysis of construct validity found that the components were similar to the results from empirical evidence.

To date, there still lacks research on employee engagement, both at Thai and international level, as most dealt with work engagement and organizational commitment. Since different organisations have distinctively different beliefs and core values, organisational culture is one of the most extensively studied factor of EE (Dave & Crane, 2010), and a determinant of the organisation's success or failure (Schein, 2004). Innovative organizational culture (Cooke & Lafferty, 1989) places emphasis on staff importance, determination to succeed, skills development and teamwork, enabling the staffs to understand the work's value, and consequently, promoting employee engagement. The concept has been implemented in the healthcare industry in various countries including Thailand (Klakovich, 1996; Aarons & Sawitzky, 2006), and the level can be quantified by the 4 major components; achievement, self-actualization, humanistic encouragement, and affiliation. Jiony et al. (2015) studied the effect of organizational culture on employee engagement and the effectiveness of the organization, with organizational communications as a mediating factor, and found that there are relationships among the 3 factors. An increase in employee engagement can promote staff responsibility and overall effectiveness of the organiza-

tion, while effective communications can further augment the staff ability to achieve the missions and targets of the organization.

Organizational communication is another factor interested by many academics (Welch, 2011; Mishra, Boynton & Mishra, 2014) as it is a system for communicating strategies and missions. Mishra et al. (2014) interviewed executives on the role of organizational communication on employee engagement. They found that with clear and direct communications, staff perception and trust towards the organization improve. Staffs are able to understand their roles to work more effectively, and increase employee engagement (Buckingham and Coffman, 1999). Face-to-face communications can also reduce resignation rate. Generally based on the 5-step Likert Scale, organizational communications can be assessed in multitudes of ways, eg survey on organizational communications, measuring awareness and effectiveness of news and information communications through various means. Thomas, Zolin & Hartman (2009) developed a model that determines the effect of staff participation in setting the organisation's goals, with trustworthiness to exchange information within organisation and the organisation openness as causal factors. Trustworthiness is determined by quantity of exchanged information, and quality, which is assessed by accuracy, timeliness and usefulness of the data.

O'Reilly (2007) studied a driver-mediated model of employee engagement and reported an association between organizational communication and leadership styles. Likewise, organizational culture is associated with leadership (Block, 2003; Dartey-Baah, Amponsah-Tawiah and Sekyere-Abankwa, 2011; Michael et al., 2015). Block (2003) studied the association between organizational culture and leadership in a renowned trading company and found that staff with transformational leadership had higher work efficiency, more understanding of the company's mission and more interaction with the organization than those with transactional leadership. Furthermore, he also found that supervisors have the most power to promote understanding of organizational culture. This is in line with the studies of Dartey-Baah, Amponsah-Tawiah & Sekyere-Abankwa (2011) who found that different styles of leadership have an important role in work efficiency in public sectors, and also effectiveness. While Bass et al. (2003) observed that both transformational and translational leadership improve work efficiency, a study by Diana (2014) on the association between awareness of organizational justice and employee engagement, with transformational and translational leadership mediating factors found that supervisors with transformational leadership are responsible for staff awareness of organizational justice and increasing employee engagement. Shuck & Herd (2012) similarly reported that transformational leadership strongly affects work confidence and employee engagement more than translational leadership. Therefore, transformational leadership, as discussed by many researchers, is a key factor for improving employee management (McGregor, 1960; Tannenbau, Weschler, & Massarik, 1961; Blake & Mouton, 1969; Redding, 1970; Burns 1978; Ouchi 1980; Bass, 1985).

Hence, it can be seen that constructive organizational culture, transformational leadership and organizational communications are all interconnected, and all impact employee engagement. Whilst a model of the effect of organizational culture with organizational communications as the mediating factor on employee engagement (Jiony et al., 2015) and many studies on the effect of transformational leadership on employee engagement do exist (Arakawa & Greenburg, 2007; Biswas & Bhatnagar, 2013;

Ghafoor et al., 2011; Schaubroeck et al., 2012; Shuck & Herd, 2012; Saul, Kim W., & Kim T., 2014), there has yet to be a study to see the combined effects of these three factors on employee engagement. With the aforementioned issues found in professional nurses, the objective of this study is to determine the causal factors of nurses engagement, namely constructive organizational culture, transformational leadership and organizational communications, for improving employee engagement of staffs in healthcare industries.

### **Tool development and validation**

Constructive culture measurement (Cooke & Lafferty, 1989, cited in Genetzky-Haugen, 2010). Professional nurses perception of the transformational leadership of their direct manager questionnaires were modified to suit the concepts of Bass & Avolio (1994). Organizational communication measurement considered factors used in the study of Thomas, Zolin and Hartman (2009). Professional nurses engagement measurement, questionnaires were modified to follow Soane et al. (2012).

Quality of the tools was assessed with content validity by experts. Construct validity was confirmed. Preliminary data were collected from private hospitals in Bangkok. Cronbach's Alpha Coefficient was analysed for all factors to determine confirmatory factor analysis (CFA) and internal consistency.

### **Survey development**

A new survey was developed by removing some questions for the sample (103 participants). Sample size was calculated with SEM equation. There are 5 parts in the survey; 1) general information, 2) 20 questions for constructive culture measurement, which involves four topics; achievement, self-actualising, humanistic encouragement, and affiliation by reliability ( $\alpha = .88$ ) 3) 20 question for professional nurses perception of the transformational leadership of their direct manager, which also involves four topics; idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration by reliability ( $\alpha = .90$ ) 4) 10 question for organisational communication measurement, which involves two topics; quality of information and enough of information by reliability ( $\alpha = .84$ ) 5) 15 questions for professional nurses engagement measurement, which involves three topics; intellectual engagement, social engagement and affective engagement. ( $\alpha = .85$ )

### **Data analysis**

Data (402 samples) were analysed for frequency, percentage, mean and standard deviations for all factors. Following data collection, they were analysed by LISREL 8.72 to assess the goodness of fit to the empirical model.

### **Results**

The majority of the participants ( $n = 402$ ) has been working for below 6 years (26.6%), the education level of most participants were undergraduates/ at Bachelor's degree (99.80 %). Of all the participants, slightly more than half were in medium size hospital.

**Table 1 The effect of factors on professional nurses engagement**

Variables	สถิติ	ตัวแปรผล								
		Constructive Culture			Organizational Communication			Employee Engagement		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
Transformational Leadership	SE	0.07	-	0.07	0.06	0.05	0.05	0.08	0.05	0.08
	t	10.33** *	-	10.33** *	4.64***	8.04***	12.99** *	5.85***	6.21***	9.23***
	$\beta$	0.71***	-	0.71***	0.28***	0.43***	0.71***	0.45***	0.31***	0.76***
Organizational Communication	SE	-	-	-	-	-	-	0.07	-	0.07
	t	-	-	-	-	-	-	2.96**	-	2.96**
	$\beta$	-	-	-	-	-	-	0.21**	-	0.21**
Constructive Culture	SE	-	-	-	0.07	-	0.07	0.07	0.04	0.06
	t	-	-	-	8.88***	-	8.88***	3.61***	2.88**	5.85***
	$\beta$	-	-	-	0.61***	-	0.61***	0.23**	0.12**	0.36***
	R <sup>2</sup>	0.50			0.50			0.58		
X <sup>2</sup> = 47.34; df = 33; p-value = 0.05056; GFI = 0.982; AGFI = 0.951; RMSEA = 0.0329; RMR = 0.00609; CN = 456.746										

Model testing showed that the constructed model of nurse employee engagement was consistent with the data ( $p = 0.05056$ , Table 6), and was further supported by high degree of fit indices ( $X^2 = 47.34$ ;  $df = 33$ ;  $p\text{-value} = 0.05056$ ;  $GFI = 0.982$ ;  $AGFI = 0.951$ ;  $RMSEA = 0.0329$ ;  $RMR = 0.00609$ ;  $CN = 456.746$ )

The developed model of nurse engagement showed that the most influential factor were TL, CC and OCom respectively. Besides, Both TL and CC are two main factors which influenced the EE, while having the Ocom as a mediator. described in figure 1

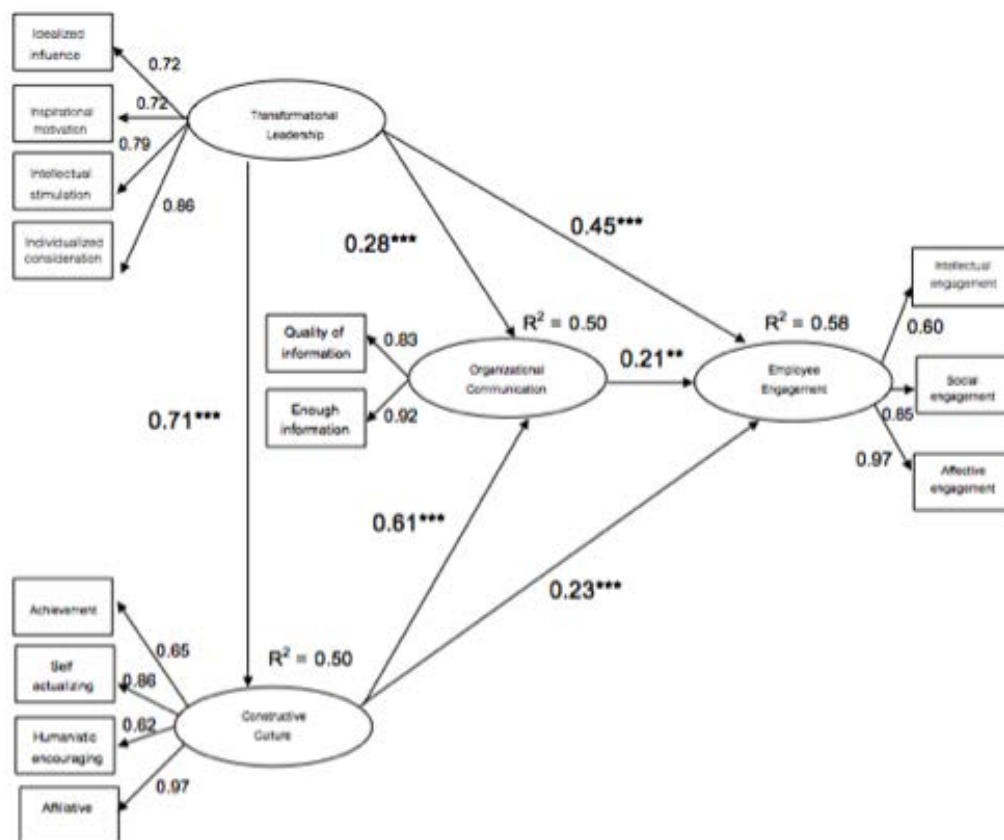


Figure 1: Multiple-group analysis of causal model of Nurse engagement.

## Conclusion and Discussion

Based on the predictive coefficient ( $R^2$ ), 58.50 % of EE can be attributed to the variables included in the constructed model. EE is directly affected by TL ( $\beta = 0.45$ ), CC ( $\beta = 0.23$ ), Ocom ( $\beta = 0.21$ ), as well as indirectly affected by TL ( $\beta = 0.31$ ) and CC ( $\beta = 0.12$ ). Jiony et al. (2015) also similarly reported that higher EE produced higher organization effectiveness, with strong OCom further augmented the understanding of roles and responsibility of staffs within the organization, and acceptance of organizational culture. Reliable OCom makes the organization perceives as being open and encourages the employee to get involved in establishing the organization's objectives. Further, Thomas, Zolin & Hartman (2009) and O'Reilly (2007) both found that styles of leadership is associated with OCom, as well as organizational culture.

Notably, OCom is also directly affected by TL ( $\beta = 0.28$ ) and CC ( $\beta = 0.61$ ) and CC is directly affected by TL ( $\beta = 0.71$ ). Studies have reported that TL promotes employees participation (James et al., 2008), perception of organizational justice and EE (Diana, 2014). The effect of TL on EE is stronger than that of transactional leadership (Shuck & Herd, 2012). Similarly, high level of EE requires effective, reliable, and consistent two-way communications between the organization and the employee to increase effectiveness and reliability of the business (Garber, 2007; Spreitzer & Mishra, 1999). Many studies supported that effective communications promote achievement of the organization's objectives and visions (Barge & Shockley-Zalabak 2008; Ziuraitė, 2008; Hahn, Lippert & Paynton, 2013)

### **Limitation and further study**

This study further deepens the understanding of employee engagement (EE) and its causal factors; CC, TL and OCom, which can be used to established directions, projects and activities to improve EE in hospital and healthcare-related businesses. Results support that executives should encourage transformational leadership development in leaders, as well as stimulating constructive culture to boost EE. Moreover, effective and sufficient communication within the organization will also improve EE. The study, however, is not without weaknesses. Due to the quantitative nature of the data and subjective responses, results may be biased and not fully representative. Further study should aim to include nurses in private hospitals outside Bangkok, and to determine the difference with nurses in public hospitals.



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## *A Population-Based Study on Health Literacy and Health Behaviors in Taiwan*

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### **Abstract**

Health literacy has been proved to be associated with various domains of health. The objective is to describe the prevalence and distribution of health literacy and health behaviors and define the association between health literacy and health behaviors in Taiwan. An area sampling was applied in this study. Structured in-person interviews in the respondents' home were conducted to obtain information on patient demographics, health behaviors, and health literacy. The participants were 569 females and 529 males with average age of 35. Over half of them did not use alcohol, had physical activity, and 68.0% kept normal BMI. The logistic regression constructed for health literacy revealed that physical activity and BMI are important factors other than gender, and education. Men have less health literacy than women. The higher educated have higher health literacy. A person who takes physical activity has higher health literacy. And an overweight person has higher health literacy. We must illuminate the causal pathways linking health literacy and health outcomes and use this information to design more comprehensive and effective interventions.

Keywords: Health literacy, health behavior, area sampling, population-based study, health risk behavior

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## Introduction

Health literacy has been proved to be associated with various domains of health. There are so many related literature on clinical cohorts. Only a handful of studies demonstrated the association between health literacy and poor health behavior in the community. For example, Ownby et al. (2014) recruited community dwelling volunteers and found that persons with lower levels of health literacy reported more health conditions, more frequent physical symptoms, and greater healthcare service utilization. Wolf et al. (2007), Bennet et al. (2009), and Kim and Yu (2010) revealed the correlation between health literacy and preventive health behaviors among community-dwelling older adults, and Chang (2011) analyzed the associations among adolescents. These studies were either designed as purposive sampling, or limited sampling with age.

Health is for all, not limited to specific population. WHO defined health literacy as the cognitive and social skills, which determine the motivation and ability of individuals in ways which promote and maintain good health; it relates to the achievement of a level of knowledge, personal skills, and confidence to take action to improve personal and community health (WHO, 1998). Nutbeam (2008) discussed about the concept of health literacy as a clinical “risk”, or a personal “asset”, and indicated the science to support the “asset” concept is less well developed. More research is needed in this area to offer convincing evidence for enhancing critical health literacy (Chinn, 2011).

With chronic illnesses replacing infectious diseases as the leading causes of death, prevention of disease has taken the forefront in public health (Satcher and Eve, 2007). There was a shift in the emphasis of public health in response to the new risk factors, and health promotion initiatives for preventing people from adopting high-risk lifestyles came into fashion. The Ottawa charter for health promotion states that ‘health is created in the context of everyday life, where people live, love, work and play’ (WHO, 1986). Health literacy has been redefined as the ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, in the healthcare system, the market place and the political arena (Kickbusch, Wait, and Maag, 2006).

Along with such change in health concept, health promotion and prevention should be integrated into the framework of measurement. Health literacy is more than just the ability to read written material; it should be the ability to comprehend information for managing one’s own health. The development of a rapid and inexpensive way to identify persons with limited health literacy would increase the feasibility of assessing a person’s health literacy in a community or of conducting large-scale studies that could evaluate the consequences of limited health literacy and identify effective interventions. The scale of health literacy developed and applied in this study includes 12 items of health promotion, physical and drug knowledge.

Suka et al. (2015) indicated that the pathways linking health literacy to health status consisted of two indirect paths; one intermediated by health information access and another intermediated by health behavior. Since health information access is the basis of health behavior in the digital world, and only through simultaneous action could one gain knowledge, health behavior is the focus to be analyzed in this research. The

objective of this study is analyzing a population-based data to describe the frequency of health literacy and health behaviors, and identify the correlation between them.

## Method

The sampling frame was nationwide and composed of a stratified (by administrative district) probability sample of over 15 years old persons including outlying islands and mountain townships. The over-all criterion that should be applied in choosing a sampling design is to so design the sample that it will yield the desired information with the reliability required at a minimum cost; or, conversely, that at a fixed cost it will yield estimates of the statistics desired with the maximum reliability possible (Hansen & Hauser, 1945). Because a complete frame of reference was not available, area sampling method was adopted. An area sampling is a method in which the area to be sampled is subdivided into smaller blocks which are selected at random and then subsampled or fully surveyed. The entire 1100 sample came from 17 counties, 7 cities and 1 island. And it is a reasonable random sample of the population of Taiwan. Two respondents who did not complete the questionnaire were not included in analysis.

Structured in-person interviews in the respondents' home were conducted to obtain information on patient demographics, health behaviors, and health literacy. The demographics included gender, age, and education. For health behaviours, 4 items used yes/no response formats to measure smoking, betel nuts, alcohol consumption, and physical activity. BMI was calculated from self-reported body weight and height, and divided into four groups, underweight (<18.5), normal (<=24), overweight (<30), and obese (>=30).

Table 1: Principal component analysis results of health literacy items

Item	Construct		
	HP	PHY	DRUG
5 servings of vegetables and fruits per day	<b>.795</b>	.225	.232
Ideal body weight	<b>.792</b>	.196	.194
Fitness	<b>.781</b>	.202	.163
Influenza vaccine	<b>.721</b>	.278	.409
Pap smear	<b>.640</b>	.301	.368
Coronary	.181	<b>.830</b>	.223
Prostate	.158	<b>.802</b>	.301
Hormone	.435	<b>.685</b>	.201
Menopause	.381	<b>.670</b>	.293
Nicotine	.287	.213	<b>.809</b>
Antibiotics	.261	.306	<b>.791</b>
Cholesterol	.304	.379	<b>.725</b>

The scale of health literacy included 12 items, namely five servings of vegetables and fruits per day, ideal body weight, fitness, influenza vaccine, Pap smear, coronary disease, prostate, hormone, menopause, nicotine, antibiotics, and cholesterol. Principal component analysis indicated that scale items loaded on 3 factors, corresponding to health promotion, physical and drug knowledge. And five-point Likert anchored scales ("1 = never heard", "2 = slightly sure", "3 = moderately sure", "4 = very sure", "5 completely sure") were used for evaluation. The international

consistency reliability coefficient is 0.93. The range of health literacy was 12-60. And was classified into 3 groups, less (12-36), median (37-47), and high (48-60).

## Result

As table 2, the participants were 569 females and 529 males with average age of 35. Most of them were 20 to 39 years old. More than 62% of them were graduated from university, and 28.4% from high school, the rest from senior high school. There were 26.3% of low health literacy, 44.8% of middle health literacy, and 28.9 of higher health literacy. Most of them did not smoke, or use betel nuts. Over half of them did not use alcohol, had physical activity, and 68.0% kept normal BMI.

Bivariate analysis revealed that gender, education, smoking, physical activity were correlated with the level of health literacy, as table 3. Females' health literacy was higher than males'. The correlation between health literacy and age were not significant as the variable of age was classified into 6 groups. The more educated persons had higher health literacy. The persons who had physical activity or did not smoke had higher health literacy. And there were no significant relations between health literacy and having betel nuts, alcohol, and BMI.

The logistic regression model was used to estimate the odds ratios for the health behaviors with higher, median or lower health literacy. The dependent variable is health literacy, a discrete and comprised of three values and less health literacy as the reference group. The independent variables are health behaviors, including smoking, betel nuts, drink, physical activity, and BMI. Gender, age and education are used as controlling variables.

Table 2. Description of participants

variables	N	%	variables	N	%
Gender			Smoking		
Male	529	48.2	No	916	83.4
Female	569	51.8	Yes	182	16.6
Education			Betel Nuts		
Junior high	96	8.7	No	1054	96.0
Senior high	312	28.4	Yes	44	4.0
University	690	62.8	Alcohol		
Health literacy			No	616	56.1
Less	289	26.3	Yes	482	43.9
Median	492	44.8	Physical activity		
High	317	28.9	No	525	47.8
BMI(kg/m <sup>2</sup> )			Yes	573	52.2
Underweight	105	9.6		<u>Mean</u>	<u>SD</u>
Normal	747	68.0	Age	35.3	12.6
Overweight	204	18.6			
Obese	42	3.8			

As table 4, individuals with middle health literacy were more likely to be female, higher educated, having physical activity, and overweight. The probability of median health literacy for males is 0.568 times likely than for females. The probability of median health literacy for persons with junior high was 0.329 times likely than



persons of university graduates. The probability of median health literacy for persons without physical activity is 0.615 times likely than for persons with physical activity. And the probability of median health literacy for overweight persons is 1.587 times likely than for normal weighted persons.

Table 3. Health behaviors by health literacy level

variables	Less (289)		Median (492)		High (317)		Chi-square	p
	N	%	N	%	N	%		
Gender							22.639	<.001
Male	168	58.1	238	48.4	123	38.8		
Female	121	41.9	254	51.6	194	61.2		
Education							36.328	<.001
Junior high	44	15.2	38	7.7	14	4.4		
Senior high	94	32.5	145	29.5	73	23.0		
University	151	52.2	309	62.8	230	72.6		
Smoking							12.680	.002
No	223	77.2	415	84.3	278	87.7		
Yes	66	22.8	77	15.7	39	12.3		
Betel Nuts							3.820	.148
No	276	95.5	468	95.1	310	97.8		
Yes	13	4.5	24	4.9	7	2.2		
Alcohol							0.600	.741
No	157	54.3	277	56.3	182	57.4		
Yes	132	45.7	215	43.7	135	42.6		
Physical activity							7.692	.021
No	158	54.7	227	46.1	140	44.2		
Yes	131	45.3	265	53.9	177	55.8		
BMI(kg/m <sup>2</sup> )							6.477	.372
Underweight	22	7.6	50	10.2	33	10.4		
Normal	231	73.7	327	66.5	207	65.3		
Overweight	43	14.9	97	19.7	64	20.2		
Obese	11	3.8	18	3.7	13	4.1		

Individuals with higher health literacy were more likely to be female, older aged, not graduated from university, having physical activity, and overweight. The probability of high health literacy for males is 0.345 times likely than for females. The probability of high health literacy for persons with junior high was 0.111 times likely than persons of university graduates. The probability of high health literacy for persons without physical activity is 0.506 times likely than for persons with physical activity. And the probability of high health literacy for overweight persons is 1.833 times likely than for normal weighted persons.

Table 4. Logistic regression models of health literacy

Variables	Health literacy (Median/Less)		Health literacy (High/Less)	
	OR	95% CI	OR	95% CI
Gender (male/female)	0.568*	0.405-0.798	0.345*	0.234-0.509
Age	1.009	0.995-1.022	1.024*	1.009-1.040
Education				
(junior high/university)	0.329*	0.191-0.567	0.111*	0.054-0.230
(Senior high/university)	0.722	0.514-1.015	0.469*	0.317-0.695
Smoking (no/yes)	1.329	0.866-2.041	1.234	0.745-2.044
Betel nuts (no/yes)	0.502	0.231-1.090	0.800	0.285-2.247
Drink (no/yes)	1.005	0.734-1.376	0.959	0.694-1.364
Physical activity (no/yes)	0.615*	0.451-0.838	0.506*	0.356-0.718
BMI(kg/m <sup>2</sup> )				
Underweight/normal weight	1.356	0.777-2.366	1.417	0.767-2.618
Overweight/ normal weight	1.587*	1.045-2.409	1.833*	1.153-2.913
Obese/normal weight	1.437	0.645-3.199	1.973	0.819-4.751

## Discussion

This is a population-based study to examine the relationship between health literacy and smoking, betel nuts, and alcohol consumption, physical activity, and BMI in Taiwan. Methodologically, the participants came from a nationwide area sampling. A systematic review by Paasche-Orlow et al. (2005) indicated that more than three quarters of the studies were from convenience samples of subjects. The strength of this study is the national representative data of a systematically stratified probability sampling.

The association of health literacy and gender, age, and education was consistent with most of the other researches. An Australian study indicated that males are significantly less likely than females to recognize symptoms associated with mental illness and more likely to use alcohol for mental health problems (Cotton et al. 2006). In the United States, the assessment revealed that women had higher average health literacy than men (Kutner, et al., 2006). In Japan, the poor mental health literacy in rural communities is strongly associated with being male and a low level of education (Kaneko and Motohashi 2007). And Paasche-Orlow et al. (2006) indicated that limited health literacy is consistently associated with education, ethnicity, and age by a systematically review. However, the assessment in Canada confirms that average health literacy varies significantly by age and education, but not gender (Health Literacy in Canada, 2007). The difference may be due to the difference of both participants and instruments.

The correlation between physical activity and health literacy is significant after controlling gender, age, and education. Many researchers (Lee et al., 2004) proposed the causal pathways of how health literacy influences health. It is suggested that a person with good health literacy will take physical activity and influence his/her health. On the other hand, a person without physical activity had lower health literacy. The result was consistent with finding of Ferguson and Pawlak (2011).

In this study, physical activity is the only one behavior relating to health literacy. The insignificant correlation between health risk behaviors (smoking, betel nuts, and drinking) and health literacy was an important finding. Wolf et al. (2007) indicated that limited health literacy was not independently associated with health risk behaviors among community-dwelling elderly. In these two studies, smoking and drinking were included as health risk behaviors. Though their participants were not the same, the same results cannot be ignored. For health risk behaviors, many factors including life style and psychosocial circumstances, and not health literacy may be more predictive of smoking and drinking.

The results showed that overweight persons had higher health literacy compared to the normal weight ones. The result is inconsistent with other researches. For example, Cunha et al. (2014) applied a cross-sectional study and found that participants with inadequate health literacy are those with higher BMI. Chari et al. (2014) conducted a cross-sectional survey and found that obesity in school-aged children is associated with parental factors, and obesity in adolescents is strongly associated with the adolescent's health literacy. Sharif and Blank (2010) concluded that child health literacy was negatively correlated with BMI in overweight children. However, Harrington and Elliott (2009) provided evidence that driving the prevalence of overweight and obesity may be so called obesogenic environments that encourage physical inactivity and unhealthy eating. The environmental factors cannot be ignored.

### **Conclusion**

As chronic illnesses have replaced infectious diseases as the leading causes of death, people have to take responsibility of health promotion. Since these myriad demands placed on patients, wide spread improvements in health and health care communication will likely be necessary to reduce the association between health literacy and mortality. To achieve this goal, we must further illuminate the causal pathways linking health literacy and adverse health outcomes and use this information to design more comprehensive and effective interventions.

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***Forensic Investigation Protocol on Marital Nullity  
for Psychologists in the Philippines***<sup>1</sup>

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**Abstract**

The literature on the legal aspect of marital nullity had significantly increased since The Family Code gave birth to the idea of psychological incapacity. And while there appeared to be voluminous cases of petition for the declaration of nullity of marriage that had been filed, the absence of literature on the parameters of responsible psychological practices in the forensic setting, as seen from the lens of forensic psychology, continued.

The present study conducted a thematic analysis of the several court transcripts and judicial affidavits on the accounts that were made by forensic clinical psychologists, as expert witness. Said thematic analyses were then validated by the expert opinion of forensic clinical psychologists and the legal luminaries in family law, and the so-called Daubert and Frye standards.

Using the legal theory on psychological incapacity, the ecclesiastical theory on mental incapacity, the dichotomous theory on personality functioning, and the Cube competency theory on professional competencies in forensic psychology, as the theoretical underpinnings, the researcher-forensic psychologist presented an aspirational forensic investigation protocol on marital nullity for psychologists.

Keywords: nullity, psychological incapacity, forensic clinical psychology, expert opinion, Daubert and Frye, investigation protocol

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<sup>1</sup> This article was culled from the earlier dissertation proposal of the author in his doctoral studies at the University of Santo Tomas Graduate School, Manila, Philippines.

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## Introduction

The biblical decree, “What therefore God hath joined together, let no man put asunder” in Mark 10:9, must have really sealed the sanctity and inviolability of the marital union between a man and a woman. And because there was practically no way out in the said marital union, couples resorted to divorce and remarried just the same. The Roman Catholic Church, meanwhile, excommunicated these individuals who remarried (Wilde, n.d.).

Then as the Roman Catholic Church kept herself busy attempting to wrestle control over the profitable marriage enterprise from the secular authorities (Davidson and Ekelund, 1997), she also gave it a serious thought not to use the term “divorce” following the indissoluble character of this marital union. Hence, the dissolution of the marital union did not actually take place in the church’s marital annulment (Foster, 1999).

Obviously then, the idea of civil nullity of marriage took off from the church’s concept of marital annulment. In the meantime, the notion of psychological incapacity in Philippine civil society resonated quite strongly when this was introduced as basis of petition for the declaration of nullity of marriage in The Family Code (07 July 1987), the country’s family law. In the same law, the idea of civil annulment of marriage was also introduced.

The conceptions of nullity and annulment in Philippine civil society, however, were essentially coming from two different actualities. In civil nullity, the country’s family law spoke of a marriage that never was; hence, the marriage was *void ab initio*. In civil annulment, the law talked about a marriage that actually took place, but was later on invalidated because the essential requisite of consent was not at all voluntarily given.

Couples with tumultuous marriages then took cognizance of the options available to them under the law. This also became the take off point for the practice of clinical psychology in the court setting. In fact, accounts indicated that there were about 10,528 cases of marital nullification record in the Office of the Solicitor General as of 2012 (Calonzo and Cayabyab, 2013).

The aforementioned record of cases filed were then matched with the number of practicing clinical psychologists in the country. It appeared, however, that the practitioners of clinical psychology in the courtroom were already deficient back then and would continue to be deficient in the near future.

But it was not only the number of practitioners that was at issue. Those who got into the practice in the court setting also rarely documented their practice. Worse, most of those who practiced either did little or nothing at all in the area of research on marital nullification, as seen from the lens of forensic psychology.

The researcher-practitioner did not also have to emphasize the essential requirements of the actual court training, the minimum academic credentials, and the observed professional demeanors of clinical psychologists in the forensic setting before and during their actual court appearance. It was observed that there were still those who



appeared unprofessional and unprepared during the trial; and those who actually testified were, in the meantime, also lacking in the more stringent requirement of the peer review of their academic papers on the subject matter of marital nullity; hence an aspirational forensic investigation protocol on marital nullity for psychologists in the Philippines was called for.

### **Scope and limitations**

The nomothetic nature of the discipline of psychology vis-à-vis the ideographic nature of the discipline of law served as a substantial limitation in this study. The empirical nature of the former and the *stare decisis* based nature of the latter served as additional substantial limitation (Costanzo and Krauss, 2010).

The present study was specifically intended to extract an aspirational protocol on marital nullification for clinical psychologists and not for psychiatrists who practiced in the Philippine court setting. In so doing, the study observed the Rule on Declaration of Absolute Nullity of Void Marriages and Annulment of Voidable Marriages (15 March 2003), so that access to the court transcripts of stenographic notes of forensic clinical psychologists, including their judicial affidavits, were made with the highest assurance of confidentiality to the custodian or custodians of these records, and with leave of court, if they were accessed directly from the courts.

The audio recording of these court transcripts of stenographic notes, meanwhile, were no longer retrieved considering that these transcripts were in themselves faithful reproduction of the clinical psychologists' actual human experiences in the courtroom itself and were also subscribed to as faithful reproduction of the said experiences therein by the duly assigned court stenographer.

In the conceptual framework, the resolution of the petition for the judicial declaration of the nullity was no longer covered. The study then limited itself up to that part where the transcripts were already available. The clogged docket of cases in our courts made it administratively untenable for these nullity cases to be resolved in a matter of year or two. The confidential nature of these cases further made their tracking highly improbable, if not impossible.

This study then included five major areas of concern that would be broad enough to allow the researcher to present his arguments. They included the topics on marriage and marital relations, psychological incapacity, personality disorder as the crux of the incapacity, forensic mental health assessment, and the expert witness as the "hired gun."

### **Marriage and marital relations**

In the Second Vatican Council, marriage was viewed as a "covenant" between a man and a woman, which covenant was characterized by fidelity, permanence and sacramentality (Vere and Rapp, 2009). The Family Code, meanwhile, defined marriage as "a special contract of permanent union between a man and a woman entered into in accordance with law for the establishment of conjugal and family life."

As an inviolable social institution, marriage transcended beyond its contractual nature because the State actually impinged into the personal affairs of the hearts of the spouses. Rosas (2014), who placed so much emphasis on the Canon 1095 and the *Dignitas Connubii*, supported the position that the marital union was actually imbued with both an inherent personal interest and a complex social nature. In turn, The Family Code similarly recognized this union with public interest as it mandated the State “to take steps to prevent collusion” or “to take care that the evidence is not fabricated or suppressed.”

### **Psychological incapacity**

The researcher in trying to contextualize the very concept of psychological incapacity cited Article 36 of The Family Code which stated that “A marriage contracted by any party who, at the time of the celebration, was psychologically incapacitated to comply with the essential marital obligations of marriage, shall likewise be void even if such incapacity becomes manifest only after its solemnization.”

Gesmundo (2014) and Carcereny and Soliman (2010), citing the Santos doctrine, pointed out that the basis marital nullity was psychological incapacity, which should in turn be mental and not physical in nature. The incapacity should similarly be to that extent where either or both of the contracting parties would be truly incognizant to assume and discharge his or her essential obligations to the marital union. Santos further laid down that the incapacity should be grave, incurable and with juridical antecedents.

Canlas (30 April 2007), citing the case of Navarro, Jr. v. Cecilio-Navarro, stressed that the incapacity should be more than the mere neglect or refusal of the spouse to have sexual intercourse. Canlas (21 May 2007) added that the acts of infidelity did not automatically lead to psychological incapacity, unless they became numerous and complex enough to turn into a disordered personality.

Notwithstanding the tenets that were already laid down in the Santos case, the Supreme Court in Republic of the Philippines v. Court of Appeals and Roridel Olaviano Molina (13 February 1997) appeared to have laid down stricter guidelines in nullity cases for the family courts to adhere. In Molina, the High Court stressed that the crux of the incapacity must either be clinically or medically identified, alleged in the petition, proven by the experts, and clearly illuminated in the decision of the court *a quo*.

But in Brenda B. Marcos v. Wilson G. Marcos (19 October 2000), the Supreme Court seemed to have contradicted itself by stressing the point that the personal medical or psychological examination of the respondent spouse was not a *conditio sine qua non* for the validity of the marital nullification. The High Court claimed that the nullity could still be established by the entirety of the evidences presented.

### **Personality disorder as the crux of the incapacity**

In most of the petitions for the declaration of nullity of marriage based on psychological incapacity, the cruxes had been anchored on disorder personalities. Keulen-de-Vos, et al. (February 2011) claimed that the affliction of personality

disorders was the most common form of psychological aberration in the forensic setting. Malibiran (2007) validated this claim by citing the cases of Dedel, Villalon, and Navarro where either or both of the spouses' psychological incapacity was traceable on their disordered personalities.

The case of Leonilo Antonio v. Marie Ivonne Reyes (10 March 2006), however, took a slightly different path when it highlighted the pathological lying that was concocted by the respondent-wife, as asseverated by the expert opinion of Dr. Arnulfo Lopez, although it also mentioned in passing the respondent's Paranoid Personality Disorder. The Court gave credence to the expert testimony of Dr. Lopez on respondent's "fantastic ability to invent and fabricate stories and personalities."

In pointing out certain disordered personalities, Sison (28 July 2009) referred to the case of Halili v. Halili and Republic, which cited the case of Dependent Personality Disorder as an enduring and inflexible type of mental disorder that impaired all the areas of the individual's functioning, and which could have had its onset during the individual's childhood or adolescent years, but which might not also be so severe as a mental disorder since it could just be a dysfunctional lifestyle.

The earlier case of Marieta C. Azcueta v. Republic of the Philippines and the Court of Appeals (26 May 2009) similarly cited respondent spouse's Dependent Personality Disorder as basis for psychological incapacity, which incapacity, however, was characterized as rather severe, to the point that it rendered this spouse unable to assume his or her essential marital obligations to the marital union.

The likelihood that the individual could readily be assessed with personality disorder was probably attributable to the dichotomous theory of personality functioning. Being criteria-based, the constructs of these various disorders did not actually fit into well-delineated categories. Further, there was excessive comorbidity and heterogeneity in the constructs, as well as poor convergent and poor discriminant validity within the various categories of these disorders (Sellbom, Smid, De Saeger, Smit, & Kamphuis, 2014).

### **Forensic mental health assessment**

Forensic mental health assessment referred to the combination of a variety of assessment activities which was designed to help the court in resolving a forensic issue, a legal question it faced in the legal proceedings (Heilbrun, Grisso, & Goldstein (2009). Nicholson and Norwood (2000) described forensic assessment to include the psychological assessment tools and procedures that actually lacked the strongest evidence of reliability and validity. Accordingly, even the level of practice in forensic assessment fell short of the required professional aspirations.

The Minnesota Multiphasic Personality Inventory-2 or MMPI-2, the latest version of which was the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF), appeared to be the most widely used and researched measure of personality and psychopathology in the world (van der Heijden, Egger, Rossi, Grundel, & Derksen, 2015). Together with the MMPI-2-RF, the Millon Clinical Multi-axial Inventory-III or MCMI-III could also readily detect faking good or faking

bad in the clinical population with the use of its three modifying indices, although at a moderate level of effectiveness (Daubert and Metzler, 2000).

The use of the projective techniques, meanwhile, would have to be the most controversial topic in the assessment of personality and psychopathology. Lilienfeld, Wood, and Garb (2000) opted to recommend to forensic clinical psychologists that they refrained from using them in the forensic setting; but just the same, these projective techniques continued to be admitted by the trial courts.

Practitioners similarly relied on collateral information, especially from the accounts of individuals who had personal knowledge of either or both of the spouses. In the case of the Republic of the Philippines v. Nestor Galang (06 June 2011), the Supreme Court declared that the independent collateral accounts from those who personally knew the respondent gave credibility to the psychological evaluation. The inclusion of the locally normed Psychological Incapacity Rating Scale or PIRS (Ng and Apruebo, 2006) would even make the entire psychological assessment very credible.

### **The expert witness as the “hired gun”**

Although the opinion of a witness would generally be inadmissible in evidence (Section 48, Rule 128 of the Revised Rules of Evidence), the opinion of an expert witness would nonetheless be admitted when this expert opined on “a matter requiring special knowledge, skill, experience or training which he is shown to possess” (Section 49, Rule 128).

Since the trial courts lacked the special knowledge to deal with the legal issues (Yuille, 1989), forensic clinical psychologists were then hired, although they would later be labelled and accused of being “hired guns” (Otto, 1989). But even before all these accusations, it all started with the judiciary’s concern on the use of “junk science” in the courts (Welch, 2006).

In Daubert, the role of the trial court judge as the “gate keeper” in the admissibility or inadmissibility of the evidences was emphasized (Neufeld, 2005). The Daubert came about because the general acceptance rule by the scientific community was practically abused. Expert testimonies were then merely generated based on the pure opinion or *ipse dixit* of the supposed expert (Mahle, February 2012).

The forensic clinical psychologist, who testified as an expert witness in the forensic setting, must also possess the required professional competencies. Under the Cube competency, the required professional competencies included the following: the foundational competency domain, which served as the building blocks of the profession; the functional competency domain, which encompassed the required professional activities; and the professional competency domain, which included the training activities, such as enrolling in doctoral or postdoctoral studies and/or continuing competencies (Varela and Conroy, 2012).

## **Research questions**

In response to the identified theoretical and practical gaps in this study, the researcher asked this general and encompassing, but very important query, as follows:

How should forensic clinical psychologists in marital nullity adhere to responsible forensic psychological practices in the court setting?

Specifically, the researcher wanted to find out the answers to the following:

(1) What were the psychological practices of forensic clinical psychologists in the Philippines in marital nullification insofar as the in-take of their clients were concerned; in what way were these psychological practices in the Philippines different from the so-called responsible forensic psychological practices; how could these psychological practices guide the forensic clinical psychologists to act responsibly in their dealings with their clients and with the courts;

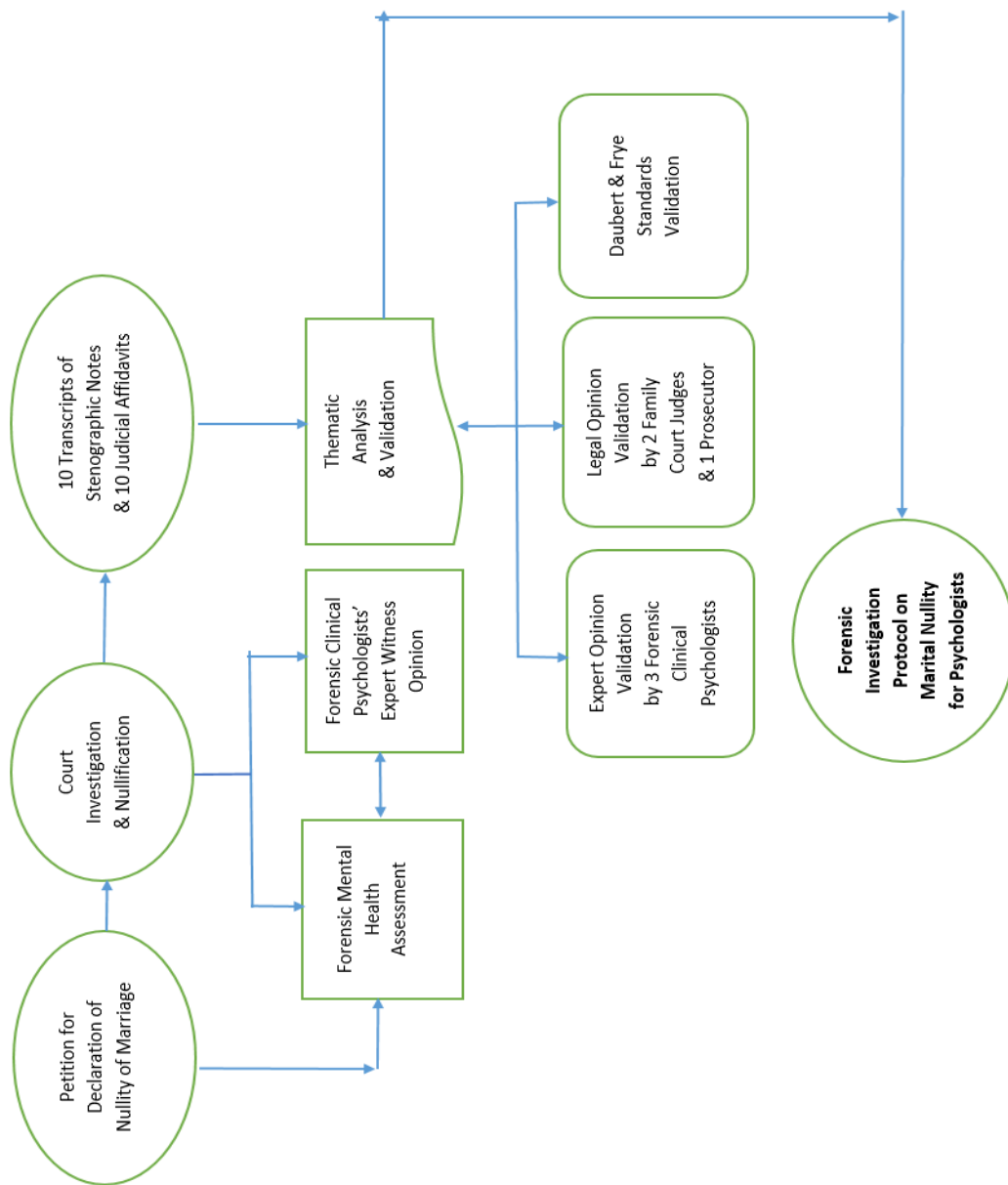
(2) What were the psychological practices of forensic clinical psychologists in the Philippines in marital nullification insofar as the forensic mental health assessment of their clients were concerned; in what way were these psychological practices in the Philippines different from the so-called responsible forensic practices; how could these practices guide the forensic clinical psychologists to act responsibly in their dealings with their clients and with the courts; and,

(3) What were the psychological practices of forensic clinical psychologists in the Philippines in marital nullification when they rendered their expert opinion in the courtroom; in what way were these psychological practices in the Philippines different from the so-called responsible forensic practices; how could these practices guide the forensic clinical psychologists to act responsibly when they rendered their expert opinion in the courtroom?

## **Conceptual framework**

Anchored on the meanings obtained from the aforementioned literature and theoretical grounds, the researcher came up with the position that in order to establish a sound and scientific basis for strengthening the state-of-the-art of forensic investigation practice on marriage nullity to be contained in a reliable, trustworthy and professional protocol, a carefully, dialogically and exhaustively conducted qualitative research undertaking was essential.

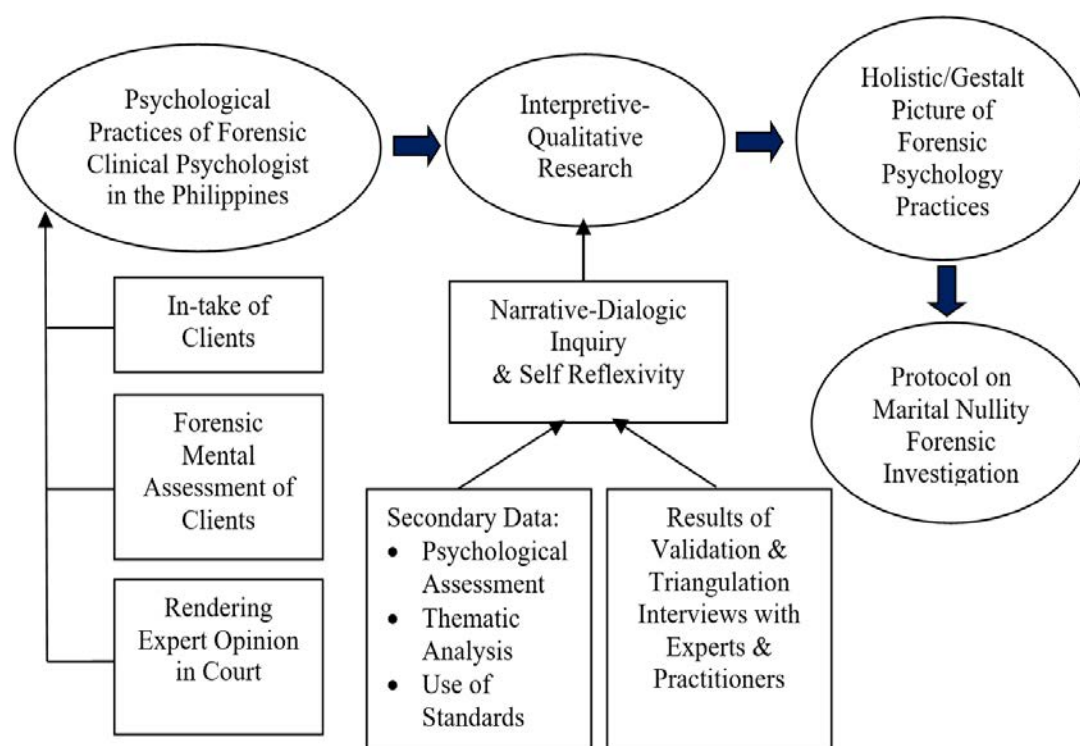
**Figure 1** presented the researcher’s position on how to strengthen the forensic protocol on marital nullification for psychologists in the Philippines.



**Research paradigm**

This study used the interpretivist research paradigm utilizing the narrative approach in deepening the meaning and crystalizing the secondary data as their contents were analyzed and critically validated by the experts and the practitioners. The interpretivist paradigm postulated that the researcher’s values were integral in all phases of the research process, as this integrated human interest into the study by suggesting a reality (e.g., forensic issues on marriage nullity, the case of this inquiry) that could not be separated from the researcher’s knowledge of it (no separation of subject and object).

**Figure 2** illustrated the research paradigm.



In the light of the theory-driven (e.g., Daubert and Frye, etc.) and data-driven features of this research, it became obvious that a qualitative strategic inquiry was most appropriate. This being so, the study neither involved the setting of hypothesis nor an experimental research design or collection and analysis of quantitative data.

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***Relationship Satisfaction and Children: Effects on Sexual Satisfaction in Married Couples***

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**Abstract**

This study addresses the great importance of relationship satisfaction in regards to sexual satisfaction. 4000 participants were analyzed utilizing data from the Relate Assessment, which analyzes factors impacting marital satisfaction. Previous research suggests that both relationship satisfaction and sexual satisfaction decrease when a couple has children (Glenn & McLanahan, 1982). Analyses yielded supporting evidence that sexual satisfaction decreases as a couple has children ( $R^2 = -0.128$ ); however, this effect disappears and there is no longer any correlation when relationship satisfaction is controlled for ( $R^2 = 0.009$ ). These results suggest that sexual satisfaction is influenced more by relationship satisfaction than by the presence or absence of children in a relationship. Previous research also suggests that an individual's perceptions of their partner and their traits are more important than their perceptions of themselves (Cohen, Schulz, Weiss, & Waldinger, 2012). The results of this study support this research, adding that an individual's perceptions of their partner's personality ( $R^2 = .662$ ), measured on personality scales including maturity, kindness, flexibility, and organization, are of greater importance than their perceptions of themselves ( $R^2 = .465$ ) in regards to their own sexual satisfaction.

Keywords: Marriage, Children, Marital Satisfaction, Sexual Satisfaction

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## Introduction

Previous research has shown that children seem to have a negative impact on both relationship satisfaction and sexual satisfaction (Glenn & McLanahan, 1982). This leads to the question of whether or not the presence of children affects sexual satisfaction directly, or if relationship satisfaction is the intermediate variable which then affects sexual satisfaction given the interdependent nature of the two. For this reason, this study's first hypothesis was that relationship satisfaction, and not number of children, would be predictive of sexual satisfaction.

Another influencing variable on sexual satisfaction and marital satisfaction is a person's perception of him or herself. How a person perceives their own body image affects their sexual satisfaction; this is especially true for women, in which their perception of their own body image has been shown to affect not only their own, but both partners' marital satisfaction and sexual satisfaction (Meltzer & McNulty, 2012). In spite of the influence of one's own self-image, it has been found that an individual's perceptions of their partner and of their partner's personality traits has an even greater influence on their relationship satisfaction than their perceptions of themselves and their own traits (Cohen, Schulz, Weiss, & Waldinger, 2012). For this reason, the second hypothesis of this study was that a person's perception of their partner's personality (Based on the maturity, kindness, flexibility, and organization scales that were collected by the RELATE Institute) is more predictive of sexual satisfaction than their own self-reported personality.

## Method

### Participants

5097 Americans participated in this study (Holman, Busby, Doxey, Klein, & Loyer-Carlson, 1997). 3138 were females and 1959 were males. The age range was 18-79 ( $m = 30$ ,  $SD = 9.89$ ).

### Materials and Procedure

The data for this study was secondary data gathered from the RELATE Questionnaire, which is an online survey developed by the RELATE Institute at Brigham Young University - Provo (Holman et. al, 1997) The questionnaire provides a way to analyze potential strengths, weaknesses, and problem areas in a relationship, making it easier to identify and talk about these problems areas and improve relationships. A data set from this questionnaire was analyzed and various hypotheses were run utilizing the statistical analysis software Statistica (StatSoft, Inc., 2012) to come up with the results.

## Results

The first hypothesis predicted that relationship satisfaction, and not number of children, would be predictive of sexual satisfaction. Therefore, analyses for the first hypothesis focused on exploring the association between sexual satisfaction, number of children, and relationship satisfaction. Two Pearson's Product-moment correlations were conducted to investigate the relationship between sexual satisfaction and number

of children, the second with the same variables, now controlling for relationship satisfaction via partial correlation analysis. When relationship satisfaction was not controlled for, a significant negative correlation was found between sexual satisfaction and number of children,  $r(3830) = -.12, p < .05$ . When relationship satisfaction was controlled through partial correlation analysis, the significance for the correlation between sexual satisfaction and number of children disappeared,  $r(3832) = -.009, p > .05$ .

The second hypothesis was that participants' perception of their partner's personality would be more predictive of one's sexual satisfaction than one's perception of their own personality. For this hypothesis, two multiple linear regressions were conducted to investigate the relationship between sexual satisfaction and personality: both participants' own personalities and their perception of their partner's personalities. A significant result with a small effect size was found between sexual satisfaction and participants' own personalities,  $F(4,3834) = 65.24, p < .01, R^2 = .06$ . The relationship between sexual satisfaction and partners' personalities was also found significant, but this time with a large effect size,  $F(4,3834) = 338.47, p < 0.01, R^2 = 0.261$ . It appears that participants' perceived perception of their partner's personality had approximately a four times larger effect on sexual satisfaction compared to their own personalities (refer to Table 1 and 2).

## Discussion

The results from the correlations generated supporting evidence for the first hypothesis, that the number of children would not be predictive of sexual satisfaction if relationship satisfaction were controlled for. Although the initial analysis revealed a significant negative correlation between the number of children and sexual satisfaction, as Glenn and McLanahan's 1982 study suggested, the significance was removed when the relationship satisfaction was controlled for in the second analysis. These results suggest that the influence of number of children on sexual satisfaction can be attributed to the much more influential factor of relationship satisfaction instead. This finding is consistent with the idea that sexual satisfaction and marital satisfaction are interdependent (Baorong & Jin, 2005).

The second hypothesis for this study dealt with personality perceptions in relation to sexual satisfaction. It was hypothesized that one's perception of their partner's personality would be more predictive of their sexual satisfaction than their perception of their own personality. The results supported this, with four times more of an effect on sexual satisfaction when dealing with partner's personality in comparison to one's own personality. These findings are consistent with Cohen, Schulz, Weiss, & Waldinger's 2012 study which found that one's perceptions of their partner's personality traits is more predictive of relationship satisfaction than their perceptions of their own personality traits. The current study suggests that this effect can be translated over to the sexual satisfaction dimension of relationships as well as the relationship satisfaction dimension.

For this study, there was no differentiation between married and unmarried couples, which could be expanded upon in future research by looking at potential differences between cohabiting relationships and marital relationships. It would also be

worthwhile to explore different personality measures aside from the ones which the research was confined to in the current study.

Though the evidence presented here is correlative only, the results provide supplementary information to the current research on sexual satisfaction. The implications of this study may be important, though, as it was found that sexual satisfaction is likely linked closest to relationship satisfaction, pointing to the importance of improving one in order to improve the other. In addition, it was found that one's perceptions of their partner are important in regards to sexual satisfaction, supporting the idea that one's positive perception of their partner may be more important than reality (Cohen, Schulz, Weiss, & Waldinger's 2012).



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Variable	Model		
	<i>B</i>	<i>SE B</i>	<i>b</i>
Intercept	10.09**		
Maturity Scale	0.43**	0.047	0.16
Flexibility Scale	0.06	0.041	0.03
Organized Scale	0.24**	0.050	0.08
Kindness Scale	0.27**	0.045	0.11
R2		0.06	

*Table 1.* Summary of simple regression analyses for variables predicting personality versus sexual satisfaction

\* $p < .05$ . \*\* $p < .01$ .

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Variable	Model		
	<i>B</i>	<i>SE B</i>	<i>b</i>
Intercept	3.82**		
Maturity Partner Scale	0.14**	0.036	0.06
Flexibility Partner Scale	0.28**	0.033	0.16
Organized Partner Scale	0.23**	0.038	0.09
Kindness Partner Scale	0.64**	0.037	0.32
R2		0.26	

*Table 2.* Summary of simple regression analyses for variables predicting partner's personality versus sexual satisfaction. \* $p < .05$ . \*\* $p < .01$ .



***Marital Relationship Satisfaction: Impacts of Children,  
Religion, Income Level, and Gender***

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**Abstract**

To understand the effect of having children and length of marriage on relationship satisfaction, 4000 participants were analyzed from data supplied from the Relate Institute, which is dedicated to assessing marital satisfaction. Relationship satisfaction followed the same pattern over time both controlling for, and not controlling for, the number of children. Children were found to have a significant effect ( $p < 0.05$ ) on all religious populations studied: The happiest marriages had no children, while the next happiest marriages had five or more children, and this was true for both males and females, but not true across different income levels. It was also found that Latter Day Saint (Mormon) and Protestant relationships had significantly higher relationship satisfaction than Catholics and those who reported no religion.

Keywords: Religion, income, relationship satisfaction, gender

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## **Introduction**

Children drastically alter the dynamics of a marriage, especially in regards to the relationship satisfaction of the couple. Previous research has shown that there is a negative correlation between marital satisfaction and the presence of children. This can be partially attributed to the fact that unhappily married people, though desiring separation, are more likely to remain married because of the presence of children (White, Booth, & Edwards, 1986). Interestingly, this effect is mitigated when income is controlled for (Tsang, Harvey, Duncan, & Sommer, 2003). As found by Wilcox and Marquardt (2011), religiosity has a positive correlation with marital satisfaction, and it has also been shown that couples with four or more children are happier. In relation to the positive correlation between religiosity and marital satisfaction, this effect might be attributed to the fact that religious individuals are more likely to have more children, and thus also receive more support from the communities to which they belong. (Wilcox & Marquardt, 2011). Vanlaningham, Johnson, & Amato (2001) found that marital happiness tends to decrease at a lower rate once college age children leave the parental house, and to also decrease after the first years of marriage due to relationship disenchantment. The presence of children accounts for some of the decrease in marital happiness of the first 25 years of marriage but not for the decline of it over the course of a lifetime (Vanlaningham, Johnson, & Amato, 2001).

Because of this research, the first hypothesis was that for both genders, the happiest marriages would have no children, followed by marriages with five or more children. The second hypothesis was that marital satisfaction would not decrease over time after controlling for children. The third hypothesis was that income level would alter the effect that number of children had on marital satisfaction, and for the last hypothesis, it was hypothesized that one's religious denomination would alter the effect that number of children has on marital satisfaction.

Because marital satisfaction is a complex phenomenon with many influencing variables, the goal of this study was to help better understand and explain some of the complexities of marital satisfaction by measuring or controlling for the covariates that have been mentioned in previous research. The current study provided an empirical investigation into the possible impact on a relationship of three particular covariates: marriage duration, income level, and religion, measuring them between participants with various numbers of children and couples' relationship satisfaction.

## **Method**

### **Participants**

In the original data set (Holman, Busby, Doxey, Klein, & Loyer-Carlson, 1997), 5,097 participants took part in this study. However, all non-married couples were excluded, and as a result only 1,534 participants were analyzed. 578 were males and 956 were females. The age range was 18-79 ( $M = 34$ ,  $SD = 11.3$ ).

### **Materials and Procedure**

The data for this study was secondary data gathered from the RELATE Questionnaire, which is an online survey developed by the RELATE Institute at Brigham Young

University - Provo (Holman et al., 1997) The questionnaire provides a way to analyze potential strengths, weaknesses, and problem areas in a relationship, making it easier to identify and talk about these problems areas and improve relationships. A data set from this questionnaire was analyzed and various hypotheses were run utilizing the statistical analysis software Statistica (StatSoft, Inc., 2012) to come up with the results.

## Results

This study analyzed the various aspects that can influence relationship satisfaction. The first hypothesis was that for both genders, the happiest marriages would have no children, followed by marriages with five or more children. Two One-Way ANOVAs were run, one for each gender, with number of children as the independent variable, and relationship satisfaction as the dependent variable. While the hypothesis was true for women ( $F(3, 950) = 38.21, p < .001, \eta^2 = 0.11$ ), the results showed that men with no children ( $F(3, 573) = 22.30, p < .001, \eta^2 = 0.1$ ) were not significantly happier than men with five or more children (See Figure 1).

The second hypothesis was that marital satisfaction would not decrease over time after controlling for children. An ANOVA with marriage length as the independent variable and relationship satisfaction as the dependent variable was ran. As can be seen in the graph (See Figure 2), relationship satisfaction decreased for the first 16-20 years, and then increased afterwards ( $F(10, 1523) = 29.26, p < .001, \eta^2 = 0.16$ ). The results were similar when an ANCOVA was run and number of children was controlled for ( $F(10, 1509) = 7.82, p < .001, \eta^2 = 0.05$ ). The hypothesis was not supported.

The third hypothesis was that income level would alter the effect that number of children had on marital satisfaction. A factorial ANOVA was run with income level and number of children as independent variables, and relationship satisfaction as the dependent variable. The main effect for income was found to be significant ( $F(4, 1494) = 2.6429, p = .03223$ ). Income did not impact relationship satisfaction for parents with differing number of children, and the hypothesis was supported. However, there were only two significant differences of real note. Those with less than \$20,000 income and no children seemed to have higher relationship satisfaction than everyone else except the \$200,000 childless group and those with five children at any income level above \$20,000. Those with \$20,000-59,000 and no children also had higher relationship satisfaction than many of the other groups (See Figure 3).

Lastly, it was hypothesized that one's religious denomination would alter the effect that number of children has on marital satisfaction. A factorial ANOVA was run with religion and number of children as independent variables and relationship satisfaction as the dependent variable. The religions included for the analyses were Catholics, Protestants, Latter-Day Saints (LDS) and the category for "none." The main effect for religion was found to be significant ( $F(3, 1367) = 12.817, p < .001$ ). Religion did seem to impact marital happiness differently for parents with various number of children. LDS without children were significantly higher than the other groups when they had no children. Catholics were significantly lower than Protestants and LDS when they had 1-2 children. LDS were significantly higher than Catholic and none at 3-4 children (See Figure 4).

## Discussion

For the first hypothesis, that for both genders the happiest marriages would have no children, followed by marriages with five or more children, results yielded evidence that the presence of children generally had a negative influence on marital satisfaction for female and male participants. Consistent with the first hypothesis, participants without children had the highest relationship satisfaction, while the next happiest relationships had five or more children. Since couples with no children have a consistently higher marital satisfaction than couples with one to four children, this may be explained by White, Booth, and Edward's (1986) theory that unhappy couples are less likely to separate because of their children. This could imply that those with more children are less happy simply due to their being "stuck" in a relationship, not because of the presence of children. The relatively high relationship satisfaction in participants with five or more children could also be attributed to the reasoning laid out in the study by Wilcox and Marquardt (2011), which says that those with four or more children are happier, likely due to the levels of community support they receive from their religious communities.

The second hypothesis was that marital satisfaction would not decrease over time after controlling for children. The analysis on the difference in marital satisfaction between marriage length generated a similar pattern described by Vanlaningham, Johnson, and Amato's 2001 study. A U-shaped pattern of marital happiness was found with a gradual reduction in the first 20 years of marriage and a steady increase after 20 years of marriage. A virtually identical result was produced when the number of children was controlled for. Therefore, the result did not provide support for the second hypothesis, which expected an alteration in the reduction pattern when controlling for the number of children. One possible explanation of this phenomenon is the the period effect (when the study was done) and other confounding variables mentioned by Vanlaningham, Johnson, and Amato (2001). As the literature suggests, the interaction between marital happiness and marriage duration is influenced by multiple factors, including the period effect. Although the number of children can be accounted for some influence, it alone does not outweigh other factors.

In the third analysis, the study investigated whether income level would impact the influence that number of children had on marital satisfaction. The results produced evidence that is consistent with the results of Tsang, Harvey, Duncan, & Sommer's 2003 study which found that income level significantly impacted the relationship between the number of children and marital satisfaction. The results revealed two profiles that produced a significant difference from that of many of the other groups. A household with lower than \$20,000 income and no children tended to have higher marital satisfaction than all other groups except the childless households with higher than \$200,000 income, and also households with five or more children in income levels above \$20,000. Since both the the number of children and income level could be indicative of a longer marriage duration, this could be a confounding variable since relationships already have higher satisfaction after 16-20 years. This fits into the model of U-shaped pattern between marriage duration and marital satisfaction suggested by Vanlaningham, Johnson, and Amato (2001). The other significant profile was that of couples with less than \$20,000 income and no children had higher relationship satisfaction than most other groups, except: income level above \$200,000

households with no children and households that made more than \$20,000 and had five or more children. Those with 20,000 to 59,000 and no children also had higher relationship satisfaction than many of the other groups.

The last analysis explored the interaction effect between different religious denominations and number of children on marital satisfaction. By revealing significant interaction effects, the results generated support for the hypothesis that an individual's religious denomination would alter the impact that the number of children has on marital satisfaction. Participants who were Latter-Day Saints (LDS) with no children expressed significantly higher marital satisfaction than participants in other religious denominations without children. Since LDS have been shown to have higher religious commitment than other denominations that have been measured (Pew Research Center, 2014), the result is similar to Wilcox and Marquardt's 2011 study that suggested a positive correlation between religiosity and marital satisfaction. Despite the similarity, the results that were found in this study are not completely consistent with those in Wilcox and Marquardt's (2011), as they do not show the same trend in regards to number of children.

In spite of the fact that children had a moderate effect on marital satisfaction as shown in the first analysis, it did not seem to explain the overall trend of marital satisfaction over time. One's gender, income, and religion had an effect on the satisfaction children will bring. These results should be evaluated with care due to the fact that more than five children were not available at every income level and for every religion due to limited sample size of those with five or more children. These results are consistent with some previous literature, which is encouraging and points to the need for more comprehensive work in regards to the topic to determine other confounds and subtleties not measured in this study.

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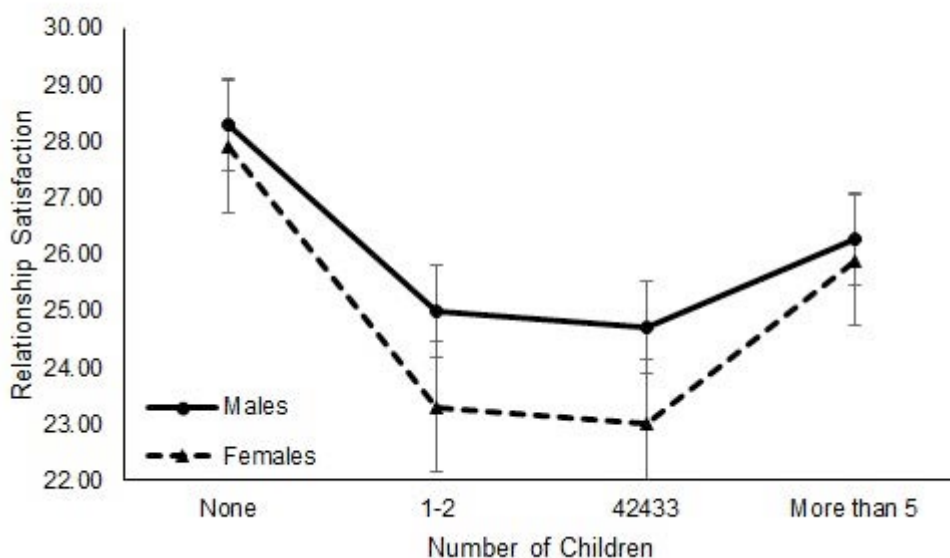


Figure 1. Number of children's influence on relationship satisfaction.

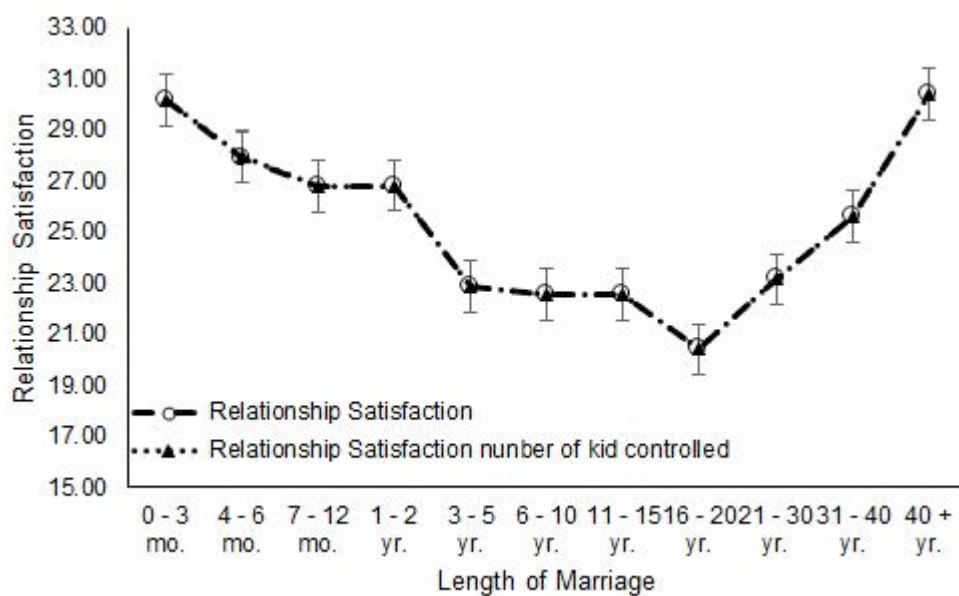


Figure 2. The influence of marriage length on relationship satisfaction.

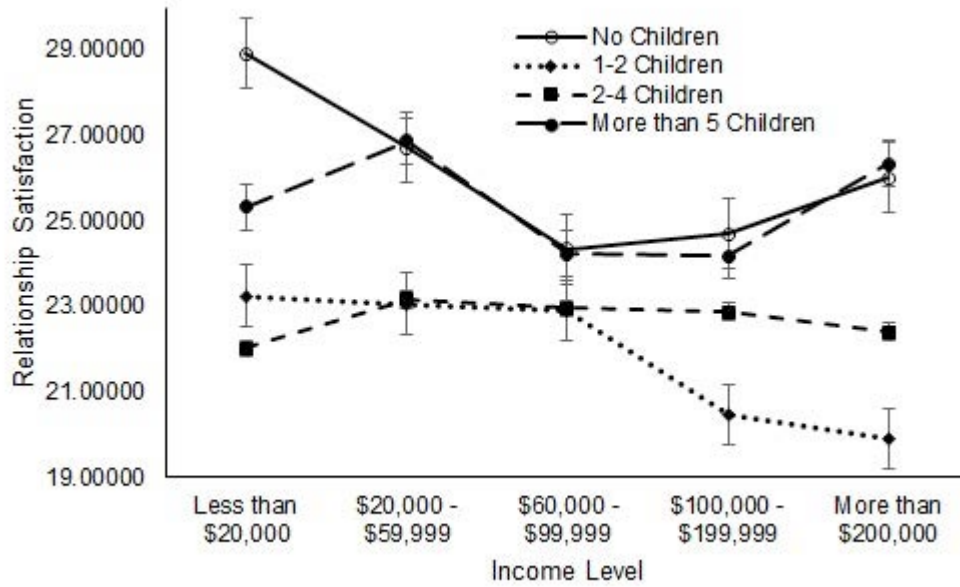


Figure 3. Number of children and income level on relationship satisfaction.

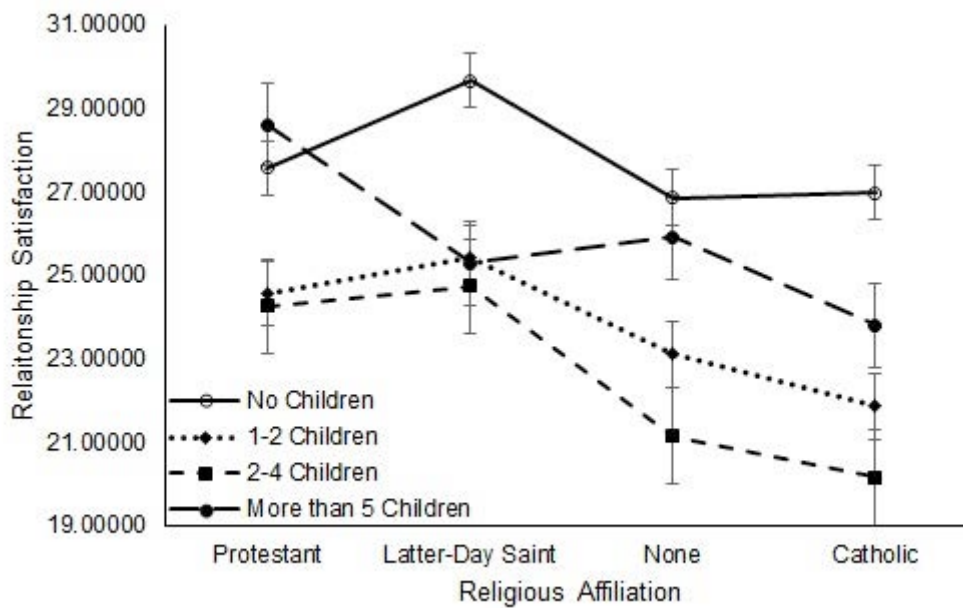


Figure 4. Number of children and religion on relationship satisfaction.

## ***Symbolic Immortality, Death Anxiety, and Quality of Life in Japanese Elderly Men***

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### **Abstract**

According to Erikson's theory of psychological development, elderly people will have to overcome death anxiety as they face their own deaths (Hattori, 2000). Death anxiety is a basic human anxiety that cannot be fully eliminated. Lifton (1973) proposed the concept of "symbolic immortality" to refer to the universal human quest to achieve a sense of continuity in the face of the incontrovertible fact of death. The present study examines symbolic immortality, death anxiety, quality of life, and the correlations among them in 29 Japanese elderly men via semi-structured interviews to obtain suggestions on how to improve the lives of and reduce the death anxiety experienced by elderly adults. The results showed that people with a sense of continuity resulting from symbolic immortality have low death anxiety. People with no symbolic immortality have high death anxiety. In particular, people with high death anxiety thought death would make them nothing physically and mentally, or they think of death as a scary thing they do not even want to think about. However, people with low death anxiety who had views such as "I do not think about what happens after death. It is more important for me to live this life to the fullest" had high quality of life. Most Japanese do not believe in a specific religion, so it is considered desirable to live life to the fullest without thinking about what happens after death.

Keywords: death anxiety, symbolic immortality, Japanese elderly men

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## **Introduction**

Death anxiety is a basic human anxiety that cannot be completely eliminated. Elderly people are gradually forced to accept their own deaths by experiencing the deaths of their peers and the decline of their own physical functioning. For such elderly people, death should be a serious matter.

Dealing successfully with psychological problems related to death leads people to experience low anxiety and helps them maintain a high quality of life (QOL). In fact, previous studies have shown people with high QOL have low death anxiety (e.g., Durlak, 1972; Yamamoto et al., 1989).

An individual's views of life and death are important factors related to low death anxiety. The influence of views concerning what happens after death is especially interesting. Lifton (1973) proposed the concept of "symbolic immortality" to refer to the universal human quest to achieve a sense of continuity when facing the incontrovertible fact of death. Examples of symbolic immortality include the belief that we keep on living in Heaven, or that something of ourselves (e.g., the works we completed while alive or our genes through our descendants) remains after our somatic death.

In the West, numerous studies have shown symbolic immortality reduces death anxiety (e.g., Florian & Mikulincer, 1998; Neimeyer & Van Brunt, 1994; O'Dowd, 1984), and this concept can generally be classified into 5 styles:

1. Biological: Immortality is entrusted to descendants; i.e., I continue to live through my offspring.
2. Theological: Immortality is entrusted to a Higher Power and the immortal soul.
3. Creative: Immortality is entrusted to achievements.
4. Natural: Immortality is entrusted to Mother Nature.
5. Empirical transcendence: Immortality is achieved by entering the eternal world through a mystical experience such as a spiritual awakening or religious exultation.

The relationships between death anxiety, QOL, and views concerning what happens after death have not been sufficiently studied in Japan, especially in regards to symbolic immortality.

## **Statement of Objectives**

This study aimed to reveal the relationships between death anxiety, quality of life, and views of life and death (especially views concerning what happens after death).

## **Method**

### **1. Respondents**

The respondents of this study were selected using snowball sampling in Tokyo in the autumn of 1999. The targets were Japanese elderly (aged 65 years old and older) men who were able to undergo an hour-long interview. We restricted our participants to men because many previous studies have shown gender differences in death anxiety. In the initial survey, I attempted to select the participants for this study from among those elderly people belonging to public elderly clubs. However, it was difficult to

achieve this because of problems with privacy or individuals' reluctance to accept the certainty of their own deaths. The targeted respondents of this study needed to be receptive to narrating their feelings about their own deaths. The main targets of this study were Christians and Buddhists<sup>1</sup>, who both believe in doctrines concerning life after death, although in somewhat different forms. We also targeted members of general associations/organizations aimed at providing death education and grief support (henceforth referred to as "Members"), medical doctors, or psychology professors.

Each respondent received a letter of consent to inform them what their participation in the study entailed before they agreed to participate in the interviews. The letter revealed the aims of this study and ensured the anonymity of all the respondents in the presentation of the study data in academic articles. The respondents were also told they could withdraw at any time during the course of the interview, and that their participation was entirely voluntary.

## **2. Procedure and Survey Content**

### **1) Procedure**

Semi-structured individual interviews were carried out in various quiet places (e.g., subjects' homes or coffeehouses). Family, friends, etc., did not learn anything about what was said during the interviews. For the most part, the investigator read the questions, the subjects responded verbally, and then the investigator asked them to confirm their answer. All interviews were recorded with the respondents' permission.

### **2) Survey Content**

(1) Attributes: age, profession, and religion

(2) The Death Anxiety Scale (DAS), which was developed by Templer (1970) and was translated into Japanese by Kawaai, et al. (1996), was used to measure death anxiety. For an item such as "I am very afraid to die," (Table 1), 1 point was given for a "true" response, while 0 points were given for a "not true" response. The DAS had a total of 15 items (with a possible total score ranging from 0 to 15 points).

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<sup>1</sup> "Buddhist," in this study refers to either a priest or an avid believer.

Table 1: DAS items.

Item
1 Do you worry about dying?
2 Does it bother you that you may die before you have done everything you wanted to do?
3 Do you worry that you may be very ill for a long time before you die?
4 Does it upset you to think others may see you suffering before you die?
5 Do you worry that dying may be very painful?
6 Do you worry that the persons closest to you won't be with you when you are dying?
7 Do you worry that you may be alone when you are dying?
8 Does the thought bother you that you might lose control of your mind before death?
9 Do you worry that expenses connected with your death will be burdensome to other people?
10 Does it worry you that your instructions or will about your belongings may not be carried out after you die?
11 Are you afraid that you may be buried before you are really dead?
12 Does the thought of leaving loved ones behind when you die disturb you?
13 Do you worry that those you care about may not remember you after your death?
14 Does the thought worry you that with death you may be gone forever?
15 Are you worried about not knowing what to expect after death?

(3) The four-point Quality of Life (QOL) Scale (Ishihara et al., 1992; Table 2) was used to measure the respondents' QOL status, which mainly consisted of psychological aspects. For example, for an item such as "Are you satisfied with your life now?" 3 points were given for a response of "true," 2 points for a response of "applies to me most of the time," 1 point for the response "does not apply too much," and 0 points for "not true." The total score of all 12 items (ranging from 0 to 48) was treated as the QOL score.

Table 2: QOL Scale items (Ishihara, et al., 1992; reporter translated).

Item
1 Do you think you are happy now?
2 Are you satisfied with your life now?
3 Have you been happy with your life till now?
4 Do you live happily now?
5 Do you think that you began to worry about the little things?
6 Have you not slept because you worry about trivial things?
7 Have you experienced a depressed mood?
8 Have you ever experienced panic attacks?
9 Are you doing things with vitality?
10 Are you participating in hobbies and other fun things?
11 Are you as interested and motivated as you were when you were young?
12 Do you think something fun will happen hereafter?

(4) Oral interviews concerning the respondents' beliefs were transcribed into verbatim records.

## Results and Discussion

### 1. Descriptive Statistics

#### 1) Attributes and backgrounds

The responses of two of our 30 subjects were excluded—one because that individual was not yet 65 years of age (age: 60 years), and one because that individual immigrated to Japan as an adult (at age of 67 years). In all, responses from 28 Japanese men (age range: 67–86 years; mean: 75.5 years) were analyzed.

Five subjects were Members, five were Christian, three were both Christian and Members, two were both Buddhist and Members, and 12 had no specific affiliations (see Table 3).

Christians accounted for one-third of the respondents in this study, even though only 1% of the total Japanese population is Christian.

Table 3: Respondent affiliations. (n=27)

		No religion	Christian	Buddhist
General association / organization for death education and grief	Member	5	3	2
	Nonmember	12	5	0

This study's subjects had higher levels of education compared to the general Japanese elderly population. Of the 27 respondents, 19 had either an undergraduate or master's degree, and the average educational attainment of all respondents in this study was an undergraduate degree. It should also be noted that the subjects of this study included

elders in key positions of responsibility (e.g., company president, facilities manager, etc.).

## 2) Average scores

Average DAS and QOL scores are shown in Table 4.

Table 4: Average scores. (n=27)

	Average	SD
DAS score	7.7	3.8
QOL score	27.9	5

## 2. Relationships

### 1) Relationship between age and DAS scores

A significant correlation was not found ( $r = .22$ , n.s.)

### 2) Relationship between QOL and death anxiety scores

A significant negative correlation was observed between these two variables ( $r = -0.47$ ,  $p < .05^*$ ). This suggests high death anxiety leads to reduced QOL for elderly men.

## 3. Views Concerning What Happens After Death

### 1) Evidence of 5 symbolic immortality styles

All responses were categorized. As a result, 12 people evidenced symbolic immortality in their beliefs about what happens after death (see Table 5), and all these views reflected Christian theological thinking.

Table 5: Example states of symbolic immortality.

Immortality style	n	Response examples
Biological	3	Eventually...I think maybe individual ideology would relate to genetics in the life chains of children and grandchildren.
Theological	7	I think I can go to Heaven. My wife went there, and I believe I can go there.
Creative	1	I do not know how the work I completed will be evaluated in posterity. I am not willing to call my own work excellent, but I think the work itself is kind of an (inherited) thing.
Natural	1	Nothing, but nothing is lost at the atomic level. Only the form changes. Only the form of existence changes; nothing is lost.
Empirical transcendence	0	

### 2) Subjects not evidencing symbolic immortality

Fifteen subjects in this study did not demonstrate symbolic immortality. Their ways of thinking about what happens after death were categorized as “nothing,” “I don’t



know,” or “I don’t think about it.” While “nothingness” and “I don’t know” seemed to indicate negativity, “I don’t think about it” seemed to be a positive response. Examples of this way of thinking are shown in Table 6.

Table 6: Examples of no symbolic immortality.

<p>“I leave it to [my] children or grandchildren, so I don’t think about it anyway.” (n=1)</p> <p>‘I do not think at all about [existence] after death, so my corpse would be.... Hmm.... My children or [grandchildren], I think they would take me up to the crematorium. Well, I say jokingly to them, ‘it’s [okay] that they throw me away into the sea in ... ashes.’ I never thought [much] about that.”</p>
<p>“This life is [more] important for me than [what happens after death].” (n=1)</p> <p>(About our whereabouts after death): “I have never thought [about] it. I think that there is [not] much sense [in] considering ... it. (Oh, yes.) It is to appear in some form ... where to go, so we can’t see it. Exactly. It is that there is no meaning. [Snip] Well, I feel that we have to think of problems [that] have been rumored recently about senior citizens [in] nursing care, or (yes) keeping the [regional] community..., or (yes) [regional] mutual assistance ..., and so on....”</p>
<p>“There is no point in thinking about what happens after death.” (n=2)</p> <p>“This issue, eh...I would like to know myself. [What] will we become. I think, how will we become? ... But, maybe, I think that would not become anything. (Snip) Well, through the life you are living now, as much as possible ... I, eh, I guess that we have to live [to the] utmost. There is no point [thinking] of [what happens after death]. That’s my opinion.</p>
<p>“It should lead to good results [for] me to do good things for ... other people in this life.” (n=1)</p> <p>“Umm, I think, if we do good things for ... other people ... (Hmm, then you are a volunteer...) Oh yeah. Oh yeah. It’s, yeah.... Anyway, someone watching us will take me to Paradise, not to Hell. Ah, though I do not know [what happens after this life]. (Well, then, you leave me after death to anyone.) Yeah, that’s right.”</p>
<p>“If I properly live in this world, God [will] treat me good.” (n=1)</p> <p>“That is quite all to God’s judgment. (Oh.) After my death. Death, ah, what is evaluated, or what is left, I think I don’t have to think [about] it. (Oh, I see). All of ... God. Ah, it’s to leave it to God, so I don’t have to think [about] it. (Yeah) So, I always learn the Bible, and make sure to do God’s [will]. (Yeah.) I continue to question to death whether I live right every day. I think it is important. As a result, I do not worry about it...[what happens] after death.”</p>

These individuals had optimistic and positive attitudes toward life, and they emphasized living to the utmost in this world more than thinking or worrying about what happens after they die.

The average DAS scores for each way of thinking about what happens after death are shown in Table 7. Those who reported, “I don’t think about it,” had the lowest DAS scores of any of the groups. At the same time, they had higher QOL scores than did people who evidenced no symbolic immortality. Furthermore, they had very similar scores to those who demonstrated symbolic immortality.

On the other hand, the scores of people who reported, “Nothing,” were the highest of all the groups in anxiety. This shows that thinking nothing happens to them after death

leads to greater death anxiety and lower overall QOL. They were considered to be a depressive state because they were pessimistic about the future.

Furthermore, the scores of people who reported, "I don't know," had greater anxiety than any of the other groups. However, their QOL was higher than that of the "Nothing" group. Perhaps they viewed death as a scary thing that they did not want to think much about; however, they were not depressive, so they were able to maintain higher QOL.

Table 7. Average DAS scores for each way of thinking (n = 27)

What happens after death		DAS score	QOL Scale	
	Biological	8		30
Symbolic immortality style	Theological	6.4	(overall) 6.5	30.9
	Creative	9		26
	Natural	0		31
	Empirical transcendence	—		—
	"Nothing"	10.5		22.4
	"I don't know"	10.5		28
	"I don't think about it"	5.8		29.7

### Conclusion and Directions for Future Research

These results suggest it is desirable to have a sense of symbolic immortality to maintain low death anxiety or high QOL. However, people with no symbolic immortality consider it good to live to the utmost without thinking or worrying about what will happen once they die, and this attitude enables them to maintain low death anxiety and high QOL.

In Japan, many people do not hold religious beliefs, so it is estimated that many people think nothing happens after death. Then, in Japan, an optimistic and positive attitude toward this life, or a determination to live to the utmost in this world, is more important than thinking or worrying about what happens after death for maintaining low death anxiety and high QOL.

This study had several limitations. First, the sample for this study was all male, and they were not representative of the general elderly population because of their education levels, status, and familiarity with talking about death. Second, the small sample size makes it almost impossible to generalize the results or the conclusions. Third, due to the nature of the study and sample size, there was an overall lack of statistical evidence for the relationships between the factors of interest. Future studies are needed to improve on these problems and to continue investigating these issues overseas, as well as in Japan.

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***The Effect of Goal Structure on Job Performance:  
The Mediating Role of Goal Orientation and Work Engagement***

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**Abstract**

Research on work engagement has been widely studied and almost exclusively focused as a dependent variable, based on work engagement model (Bakker & Demerouti, 2008). The objective of this study is to examine the pathways from goal structure to job performance through goal orientation and work engagement. The job performance model was tested with supportive staffs in the public university. Data were analyzed by using path analysis.

The results indicate that goal structure and goal orientation have positive relation with job performance. Additionally, the goal structure has an indirect effect on job performance through goal orientation and work engagement. The overall goodness-of-fit statistical analysis depicts that the causal model of job performance in university staffs is the best fit to the empirical data. Effort to increase the goal structure and to increase the goal orientation could influence engagement and job performance. Availability of the goal orientation and work engagement may increase job performance. The information about direct, indirect and total effects of all variables in the tested model, suggestions and implications for increasing job performance in university staffs are discussed.

**Keywords:** goal structure, goal orientation, work engagement, job performance

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## Introduction

The subject of job performance has been researched extensively within the area of industrial and organizational psychology because the Job performance is a consequence of the proceedings that are pertinent to the organizations' goals (Campbell, 1990; Borman, 2004). The performance is also connected to the organization objectives, as well as the personal goal. (Campbell, 1990) Job performance is similar to the prospective for the individual workers performance. It is the sign of the capacity to carry out the tasks allocated and to meet conformity goals and strategies put by the organization (Beach, 1980).

In accordance with the systematic review that is associated with the job performance, it is pointed out that the kind of work performance is diverse in stipulations of the description of the idea employed during the determination. This study of job performance can be separated into 4 dimensions that comprise Contextual performance, Task performance, Counterproductive job performance and extra dimensions (Koopmans et al, 2011). The aspects that influence work performance on numerous factors are presented inside the literature review. Work engagement is one of the mainly well-liked variant that affects the performance of workers. Earlier researches promote the connection between work engagement in the workers performance, and the outcomes of the business. The study is carried out by the components of a behavior by task performance and background performance (Bakker et al., 2004; Bakker et al., 2006).

Work engagement is a constructive idea that connected to experience within work performance and completely fills the significance of existence. The research of Schaufeli and Bakker (2004) demonstrates that work engagement incorporated 3 dimensions which are Dedication, Vigor, and Absorption.

There are lots of investigators studies regarding the concept of work engagement (Bakker et al., 2011; Schaufeli & Bakker, 2010). The researches pointed out that work engagement is the main aspect that added to a comprehension of the organization and staff linked with the organization productivity (Rich, Lepine, & Crawford, 2010; Saks, 2006). Moreover, the work engagement raises efficiency within the work performance to an advanced point, both within the organization and individual.

Bakker and Demerouti's (2008) examined the earlier researches in field of work engagement from 2002 to 2008. The work engagement is a main base that adds to the performance attainment. The research synthesis on aspects connected to the work engagement within the works is offered in the nature of models JD-R. The model integrates aspects from job resources that are linked with positive views. On the physical area of the organization that fuels development, it can be attained in individual resources related with optimistic self-evaluation and the capability of persons to manage their own inducements to work performance and insist aspects on the work as a pressure feature in performance.

The variable is the affiliation between job resources and individual aspects. The model is the work engagement of the Bakker and Demerouti (2008) having a concentration on outside aspects or external factors. Job and individual resource is to be considered as well as aspects that influence the work engagement on the job

performance that are as significant as aspects that influence the work engagement on the work engagement behavior. Nevertheless, Skaalvik and Skaalvik (2013) confirmed that exterior factors influence the interior aspects which are compatible with earlier study. The study goal structure is to analyze the influence, both directly and indirectly through goal orientation to work engagement.

Other aspects that added the job performance like objective structure and goal orientation were analyzed. Ames (1992) describes why an individual sets a goal orientation, work engagement and advanced job performance. Correspondingly, the opinion of the purpose adds to the goal orientation (Ames, 1992; Ames & Ames, 1984). The goal orientation is employed to inspire persons to complete activities as allocated and used like a basis to decide clearly the behavioral goals. It is employed like feedback to transform their performance in the goal as well (Bandura, 1986; Locke & Latham, 1984).

Within the theory of achievement goal orientations, individuals will behave based on the particular accomplishments or the reason that person would perform (Ames, 1992; Urdan, 1997; Elliot, 1999). The study has established the key that the individual would do better based on their objective (Farr, Hofmann & Ringenbach, 1993; Phillips & Gully, 1997; Van Yperen & Janssen, 2002). The hypothesis of achievement goal orientations is a psychological concept. Furthermore, it is employed to explain the behavior within the milieu of job as well as individual growth. Within industrial and organizational psychology area's persons started to apply the study within education and managerial performance of the staff in the institution during early 90's (Vande Walle & Slocum, 2001). Even though the accomplishment goal orientations have been used, the research has not yet shown a lot.

This current study targets to test the impact of the goal structure on the job performance by means of goal orientations and work engagement depending on the work engagement model of the Bakker and Demerouti (2008).

## **Method**

### *Participants & Procedure*

Participants were supporting staffs. Survey questionnaires were distributed to 300 employees. Items that were originally developed in English were translated into Thai and some were developed by the researcher, underwent internal consistency and item total correlation analyses; this was to ensure good validity and reliability before test administration. The survey protocol was certified by the Ethical Review Committee for Research Involving Human Research Subjects, Faculty of Medicine, Siriraj Hospital, Mahidol University.

### *Measure*

Participants were invited to indicate their level of agreement with each statement on a 5-point Likert-type scale ranging from 1 "Strongly disagree" to 5 "Strongly agree". All scales were developed in Thai and psychometric properties (e.g. item analysis, content testing, construct validity and reliability)

### *Job performance*

Job performance is measured by the level of awareness of personal behavior and performance to achieve the goals . By measuring from the task performance. The researchers developed the concept of Viswesvaran, 1993 , which the researchers have developed measures to assess self report by divided into 3 dimensions. 1) Productivity is the amount of goods or services are delivered to clients as agreed with the agency . 2) Job knowledge is knowledge and expertise or skilled personnel are present at work. 3) Quality is the results of the work show that it meets the standards set by the agency and worth the resources invested in the organization .

### *Work engagement*

Work engagement was measured with the 17-item version of the “Utrecht Work Engagement Scale” (UWES; Schaufeli et al., 2003). This scale is characterized by three subscales assessing the three dimensions of work engagement (e.g., “At my job, I feel strong and vigorous.” [vigor dimension], “I find the work that I do full of meaning and purpose.” [dedication dimension] and “I get carried away when I am working.” [absorption dimension]). Participants answered on a 5-point Likert-type scale

### *Goal orientation*

The measure aims to goal orientation expertise, Measured by using a scale developed by the researchers based on goal orientation divided into 2 dimensions, are mastery goal orientation was indicated by an emphasis on this document which has been updated by the synthesis form Hulleman (Hulleman; et al. 2010) Some part on the set of measurements patterns of adaptive learning scales: PALS by Midgley (Midgley; et al 2000) The scale has 5 different scales which matching you the most to the less.

### *Goal structure*

The scale of goal structure is measured the development of a set patterns of adaptive learning scales: PALS. by Midgley (Midgley ; et al., 2000) The scale is used to measure the goal of the agency's operations are divided into 2 dimensions, are A mastery goal structure was indicated by an emphasis on learning, understanding job-related and to develop the ability to work. (e.g., “ focus on learning something related to your practice” “the agency has sent you to your training so that you are capable enough to work”. While a performance goal structure was indicated by an emphasis on the results of operations, performance and competition. (e.g., “ has a policy focused on results achieved in their stuffs.” “Agencies will notify you that you have to perform at any level.”) Participants answered on a 5 point Likert-type scale.

### **Data analysis**

Descriptive statistics and correlations were computed for the demographic variables and variables in the conceptual framework model. Path analysis was applied to test



whether goal structure could predict job performance in the supportive staffs, either directly or indirectly. Goal structure was used as exogenous variables, while goal orientation and work engagement were used as mediators.

LISREL 8.72 (Joreskog and Sorbom, 1996) was used to estimate the path models using maximum likelihood (ML) estimation. The covariance matrix was used as input and measurement errors were allowed to be related. The overall fit of this model was evaluated by considering three criteria: chi-square, comparative fit index (CFI) greater than .90 (Browne & Cudeck, 1993) and root mean square error of approximation (RMSEA) less than .08 (Kliwer & Murrelle, 2007). The fit was also evaluated by checking standardized residuals greater than 2.00. A very good model fit is considered to have a relative chi-square ( $\chi^2/df$  ratio) of 3.00 or less with CFI and NNFI at .90 or higher (Bentler & Bonett, 1980).

## Results

Means, standard deviations, and correlation coefficients among all the variables in the tested model are presented in Table 1. The results show significant relationships among the exogenous variables, dependent variable and mediators. All measures demonstrated adequate levels of reliability (0.783–0.955).

Table 1 Means, standard deviations, correlations ( $n=300$ )

Variables	1	2	3	4
Goal Structure	1			
Goal Orientation	.474**	1		
Work engagement	.472**	.628**	1	
Job Performance	.346**	.602**	.676**	1
<i>M</i>	3.582	3.944	3.762	3.785
<i>SD</i>	.546	.515	.547	.474

\*\*  $p < 0.01$ , ( $n=300$ ); the values in the parenthesis are Cronbach's Alpha Coefficient.

Work engagement has a strong path to job performance. However, goal structure is not related to job performance directly, but are related indirectly through the goal orientation and work engagement to job performance. Thus, pathways from goal structure, goal orientation, and work engagement to job performance indicate both direct and indirect effects. In summary, the results suggest that the antecedents explained 56% of the variance in job performance.

The results show s significant relationships among exogenous variables, mediators, and criterion variables (Figure 1) as follows.

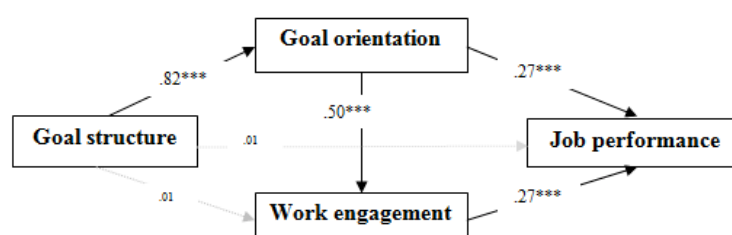


Figure 1

## Conclusion and Recommendations

This study has investigated the pathways of goal structure, goal orientation and work engagement to job performance. It was revealed and confirmed that all independent and mediator variables jointly and relatively contributed to job performance. The fit indices indicated that the hypothesized model had a reasonably adequate fit to the empirical data.

Multiple path mediation tests showing the importance of staff's goal structure was acted as independent variable in the model. It also included how staffs could be to increase job performance through mediators such as goal orientation and work engagement.

Base on the analysis, work engagement has a strong path to job performance. This is consistent with the previous researches on work engagement. Schaufeli et al. (2006) found that work engagement is strongly related to job performance. Other studies found the similar main results (Rich, Lepine, & Crawford, 2010) Moreover, worker with engagement will perform better than worker who has none or less engagement in work (Gierveld & Bakker, 2005).

Previous studies also indicated more information that worker who has more engagement in work will lead to a positive performance. (Schaufeli et al., 2006; Gierveld & Bakker, 2005)

Goal structure had indirect and total effects on job performance through the goal orientation and work engagement. This finding is supported by the previous studies conduct with high school student population. It is depicted that goal structure is related to a goal orientation positively and can be explained the expertise of the students. (Luo, Hogan, & Paris, 2011; Wolters, 2004).

Moreover, the studies concerning goal structure, goal orientation, and performance were done by using concept of mediating study (Silver, Dwyer, & Alford, 2006).

As suggested by these findings, goal structure can be a strong motivator of the behavior. Staffs with high goal structure are well at setting and achieving goals and planning strategies for encountering long-term obligations. However, the increasing of job performance should be concerned the mediators such as goal orientation and work engagement. Put more effort to build up goal structure will increase both goal orientation and work engagement as well. Base on the model analysis in this study can be applied in order to increase the plan and operational effectiveness of the university both policy and practice.

Future studies should enlarge the population and develop the program for optimizing the goal structure in university staffs.

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## *The Role of Visual Attention in Preference Formation for Food*

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### **Abstract**

Although several important theories have suggested that the length of looking time correlates with decision-making on preference, previous research has not considered the effect of visual attention (cueing) on preference formation. In the present study, we aim to explore whether attentional and emotional cues influence the preference decision-making among different food choices. A strictly controlled spatial cueing paradigm was applied: a 50 ms onset cue was presented prior to a stimulus display that consisted of two clearly visible food images and the cue could appear at either side. Participants were asked to choose the food image they preferred. To investigate the effect of visual attention (cueing) and emotional priming respectively, a neutral symbol (dot) or an emotional symbol (face logo with a smile or with a sad expression) was presented with 100 ms and 300 ms stimulus onset asynchrony (SOA) in different sessions, in order to either facilitate or inhibit attention to the cued option. The results showed that people tended to choose the cued image more often with short SOA than with long SOA in the neutral symbol sessions. Additionally, it was found that the face logo images with a smile were chosen more often than those with a sad expression in the case of long SOA, though not in the case of short SOA. The results provide important implications for our understanding of the interaction of visual attention and evaluative decision-making.

Keywords: decision-making, visual attention, preference, cueing, emotion, attention-shifting.

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## Introduction

Preference has been explained as an individual's attitude towards a set of objects, especially reflected in the process of decision-making (Lichtenstein & Slovic, 2006). The process of giving the evaluative judgment in the sense of liking or disliking has been typically defined as preference formation, which has been also studied in various aspects (e.g., Scherer, 2005). Generally, preference formation, in other words, the comparative evaluation of decision-making, depends on not only an individual's experience and memory (Stevens, 2008), but also the current environment. Several important studies have proven that the different way of presenting choice options influences human decision-making (e.g., context effects, framing effects); however, most of the previous studies have focused on the processing of perceptual decision-making (e.g., with the requirement of detecting a target), instead of decision-making on preference.

On the other hand, recent studies of preference formation conducted by Shimojo and colleagues have generated a "Gaze Cascade Effect" hypothesis to explain how subjects construct decision-making on preference (Shimojo et al., 2003). In an experiment involving the free choice of the more attractive face from a pair of face pictures, the researchers found that the selected face was fixated longer than the unselected face, especially in the period of 600 ms leading up to the actual choice. The researchers referred to this phenomenon of gaze shifting and gaze bias to the ultimate preference choice as a gaze cascade effect. Not only the study done by Shimojo and colleagues, but also several subsequent studies have demonstrated that the subjects indeed made more gaze fixations toward the option they eventually chose (Nittono & Wada, 2009; Glauckner & Herbold, 2011; Glaholt & Reingold, 2012). In addition, as a follow-up study, Bird and colleagues developed the paradigm further and found an exposure effect on preference formation (Bird et al., 2012), in line with the classic study by Zajonc (1968). On the basis of those previous studies on preference formation, it is clear to state that the gaze is actively involved in the preference formation and one could conclude that people tend to gradually commit towards a choice by spending more time looking at it.

In parallel, in the area of research on visual attention, the spatial-cueing paradigm has been a very successful approach to study how different types of cues may influence the allocation of attention (Posner, 1984). For instance, with simple peripheral stimuli as cues (e.g., a flash of light, or the outline of a square), subjects tend to respond faster and more accurately to subsequent targets at the location of the cue than at an uncued location. This kind of cueing effect particularly happens with short time delays between the cue and the target, which is also described as stimulus onset asynchrony (SOA). Nevertheless, the effect from peripheral cueing would turn to inhibitory when the time interval is longer (i.e., response to the cued targets becomes slower and less accurate; see Posner & Cohen, 1984; Handy, Jha, & Mangun, 1999). This kind of function has been defined as inhibition of return (IOR), and is often attributed to a process of re-orienting, away from the originally attended location (Klein, 1988 & 2002; Pratt, Kingstone, & Khoe, 1997; Tipper, Weaver, Jerreat, & Burak, 1994). In other words, our visual attention would be withdrawn from the cued location after it has been captured by the peripheral cue in a long SOA condition, which demands an additional process (and extra effort) when the task requires to return to the previous location, in spite of a facilitation caused by the attention residing in short SOA



condition. Thus, the effect of peripheral cueing on the orienting of attention should be divided in opposing mechanisms of facilitation and inhibition, occurring at different moments in time. By manipulation the SOA, then, it should be possible vary the extent of visual attention to different portions of the visual field.

Considering the finding of a relationship between preference formation and looking time, on the one hand, and Posner's study on visual attention, on the other hand, it is reasonable to question the interaction between visual attention, particularly with respect to the orienting of attention by different cueing, and preference formation. One could argue that, if the length of looking time correlates with the likelihood of choosing a certain option (Shimojo et al., 2003; Bird et al., 2012), and if visual attention works on the attentional duration via cueing effects, it should be possible to manipulate people's preference choice through manipulating their orienting of attention. To explore the role of visual attention of cueing in preference formation, we therefore conducted our experiment based on the well-established Posner spatial-cueing paradigm, using food images as our stimuli for evaluative decision-making. Since the different cueing effects occur in perceptual decision-making tasks through attentional shifting, and given the possible relationship between cueing and looking time, we speculate that a similar cueing effect might occur on the processing of evaluative decision-making (i.e., preference formation). Consequently, we applied an attentional cueing condition with a neutral symbol (filled white dot) with different SOA of 100 ms and 300 ms (i.e., short and long time delay) to test whether a cue influences the subjects' preference. We predicted a similar result as in perceptual decision-making tasks, that is, people would tend to choose the cued food images more than uncued images in the short SOA condition, but would tend to choose the uncued images in the long SOA condition, when they are required to make preference choices. Furthermore, we used a second type of cue to investigate whether an emotional priming effect might be observed in the preference formation. We used a pair of face logos (smiley and sad) as cues in both short and long SOA conditions. Besides the same predictions with respect to the cued versus uncued choice tendency as in the neutral dot cueing condition, we anticipated a higher probability of choosing images cued by a smiley face, whereas images cued by a sad face would have a lower probability of being chosen.

## Materials and Methods

*Participants.* A total of 43 undergraduate students (ages of 17 to 27, mean: 21.3) from Kyushu University participated in this study. Subjects received either course credits for their participation or a participation fee of 1000 yen. All participants were naïve to the purpose of the experiment and had normal or corrected to normal vision. Written informed consent was obtained before the experiment. Four participants' data were excluded from the data analysis; the remaining 39 participants consisted of 23 Japanese and 16 non-Japanese (mainly from China, Korea and Indonesia), with 20 females and 19 males. Three of the participants were left-handed but giving mouse responses by their right hand, same as the right-handed participants.

*Apparatus.* The experiment was programmed by using Matlab Psychtoolbox software and was displayed on a (32 cm × 54.5 cm) monitor with resolution of 1920 × 1080. Participants were seated at a viewing distance of approximately 60 cm, and were required to respond by clicking a wired mouse.

*Stimuli Sets.* The stimuli conditions are presented in Table 1. To assess the influence from different cueing conditions on preference formation, we applied two types of cue stimulus: the white dot (as neutral cue) and the face logo including smiley and sad face (as emotional cue). In both of cueing experiments, two kinds of stimulus onset asynchrony (SOA) were used to either facilitate attention to the cued option (i.e., short SOA: 100ms) or inhibit attention to the cued option (i.e., long SOA: 300ms), respectively, based on the Posner cueing effect and IOR (inhibition of return) phenomena. The different experimental conditions were marked as dot-100, dot-300, face-100 and face-300.

The target stimuli consisted of a total of 480 food images cropped from digital images, including pictures of sweets (i.e., cake, cupcake, donut, ice-cream, muffin, parfait), and main dishes (i.e., bread, fried rice, hamburger, hotdog, Japanese lunch box, pizza, ramen, sandwich); the sets of images were counterbalanced in each experimental session. To minimize the visual differences between choice options, the pair of food images in each trial were always imported from the same category (e.g., two simultaneously presented images were from cake category in the first trial, and hamburger category in the second trial).

Experiment	Dot-100	Dot-300	Face-100	Face-300
Cue type	Dot	Dot	Face logo (smile & sad)	Face logo (smile & sad)
SOA	100ms	300ms	100ms	300ms
Onset Cue time	50ms	50ms	50ms	50ms
Number of Trials	40	40	80 (40 / 40)	80 (40 / 40)
Prediction	C > U	C < U	C > U P > N	C < U P > N

Table 1. Experiment design. A total of four experimental sessions included two types of cueing and two different SOAs, referred to as dot-100, dot-300, face-100 and face-300. The number of trials applied for each type of cue was kept the same. The predictions are listed in the bottom row, indicating which image would be more likely chosen. “C” means cued; “U”, uncued; “P”, positive (i.e., smiley face); “N”, negative (i.e., sad face). In general, cued images were predicted to be chosen more than uncued in short SOA conditions, whereas the opposite result was predicted in long SOA conditions. Positive emotional cues would enhance choice as compared to negative emotional cues.

*Task Design.* A within-participants design with two SOAs (100ms and 300ms) × two cueing conditions (cued and uncued) × two cueing valence (dot and face) was employed. Through the entire set of experimental sessions, participants were asked to compare a pair of food images and choose their preferred one as the goal for each trial. In total, participants were required to make 240 choices (i.e., 80 trials from dot

experiments, and 160 trials, including 80 trials with sad face cues and 80 trials with smiley face cues). The order of the experimental sessions was counterbalanced across participants (i.e., half of participants started from the dot-100 session and the other half started from the face-300 session).

*Procedures.* Participants were instructed to refrain from eating and drinking (except for water) for 1h before the experiment to ensure that food was a relevant stimulus. A self-reported pre-questionnaire was obtained from the participants about their physical conditions. Before starting the actual experiment, the instructions were explained in detail and a training session was performed to ensure that the participants understood the experiment procedure.

The experiment consisted of four sessions; the trial sequence in each session is presented in Figure 1a. Participants clicked the mouse button to initiate each experimental session. In the experiment, a white cross fixation was always shown on the center of the black screen and participants were asked to lock their gaze on the fixation cross all the time except when the food images were showing. Each trial began with 500 ms of fixation, and subsequently a cue was presented for 50 ms, with a variable cue-target SOA of 100 ms or 300 ms (i.e., time delay of 50 or 250 ms), until the presentation of the target display with two food images. The participants were required to make a preference choice between the two food images by clicking the mouse. The pair of food images was displayed in one of four possible patterns (i.e., up-down, left-right, upper right-lower left, lower right-upper left; see Fig. 1b); the cue was presented with equal probability at either of the two food images (e.g., if the food images would appear to left and right side of fixation, the cue could be either on left or right side, but with the same probability throughout the session). The maximum duration for decision-making was 5 s. A questionnaire was also presented after each experimental session.

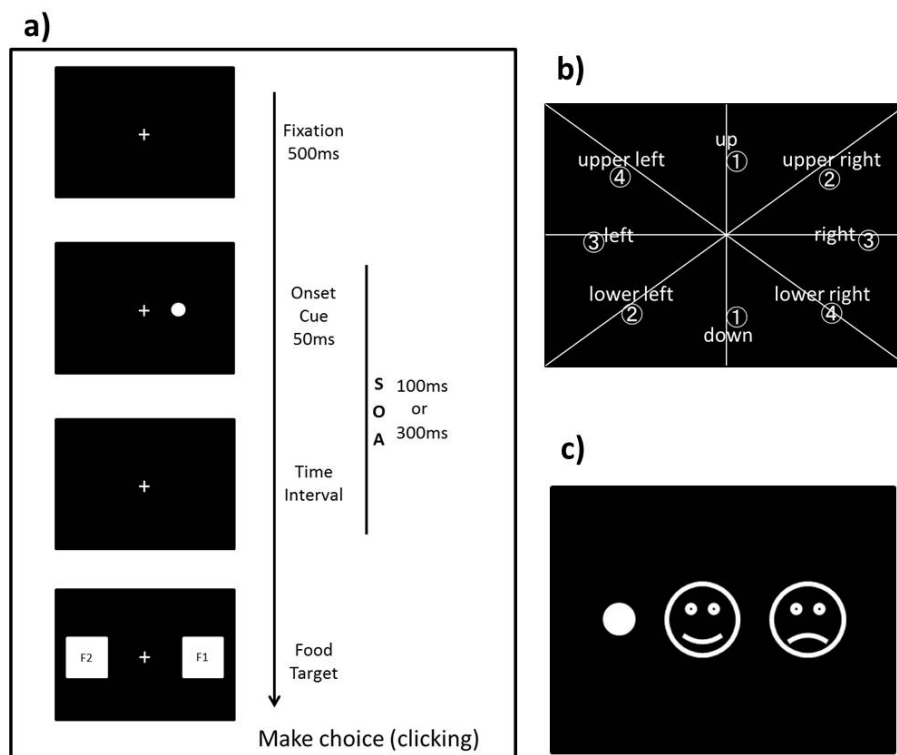


Figure 1. Task design of the experimental sessions. a) Experimental procedure of the trial sequence, based on Posner's spatial cueing paradigm. Two different time intervals were used between onset cue and target stimulus. The maximum duration for making the choice was 5s. b) The position of target stimulus: a total of four patterns to display a pair of food images (up-down, left-right, upper right-lower left and lower right-upper left). c) Design of cues: filled white dot (for neutral cueing); smiley versus sad face logo (for emotional cueing).

### Data analysis

To examine the cued choice rate in each session experiment, we divided the number of trials in which the cued image was chosen by the total number of trials. This index ranged from 0 to 1; the higher, the more choices for cued images.

$$\text{Cued Choice Rate} = \frac{N(\text{Trials choosing the cued image})}{N(\text{all performed trials})}$$

In addition, to analyze the effect of emotional cueing, we used the following equation to calculate cued choice rate for smiley versus sad face respectively:

$$\text{Smiley Face Cued Choice Rate} = \frac{N(\text{Trials choosing the smiley face})}{N(\text{all performed trials})}$$

$$\text{Sad Face Cued Choice Rate} = \frac{N(\text{Trials of choosing the sad face})}{N(\text{all performed trials})}$$

## Results

*Attentional Cueing Experiment.* As indicated in Figure 2, in the dot cueing experiment, the cued image (i.e., the image presented at the same side as the dot cue) was chosen in 51.7% of all the performed trials in the short SOA condition (i.e., Dot-100 session), and with 47.7% cued choice rate in the long SOA condition (i.e., Dot-300 session), respectively. A one-way repeated measures ANOVA was conducted on cued choice rate using a within-subjects factor of SOA (100 vs. 300 ms), which revealed a statistically significant effect of SOA,  $F(1, 38) = 4.785$ ,  $MSE = 0.031$ ,  $p < 0.05$ , indicating a higher choice rate of cued image in 100 ms (vs. 300 ms) SOA condition. No significant difference between the cued and uncued choice rate was found within each experimental session experiment ( $p > 0.1$ ).

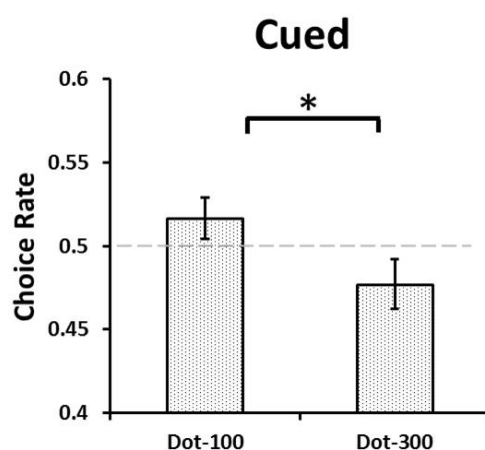


Figure 2. The probability of cued choice in the attentional cueing experiment. The choice rates are shown for the cued image in the dot-100 session (mean  $\pm$  SE =  $0.517 \pm 0.012$ ), and in the dot-300 session (mean  $\pm$  SE =  $0.477 \pm 0.015$ ). A one-way repeated measures ANOVA showed a statistically significant effect of SOA in sessions,  $F(1, 38) = 4.785$ ,  $MSE = 0.031$ ,  $p < 0.05$ .

*Emotional Cueing Experiment.* In the face cueing experiment, a statistical analysis from all trials, regardless of the different types of faces, revealed that the choice rates to cued images were almost equal to each other in both the short and long SOA conditions: 49.8% in the 100 ms SOA session and 49.7% in the 300 ms SOA session. There was no significant main effect in each condition, nor between the two conditions (see Fig. 3).

On the other hand, to investigate the effect from different face cues, we divided all performed trials on cued images to smiley cued and sad cued trials to calculate the choice rate of each face logo. As indicated in Figure 4, the result of the cued choice rate on different face logos showed an interaction effect between conditions, from a two-way ANOVA with factors of SOA (100 ms vs 300 ms) and types of face logo (smiley vs. sad),  $F(1, 37) = 5.606$ ,  $MSE = 0.001$ ,  $p < 0.05$ . Additionally, a student *T-test* was conducted on different face logos in each condition, and we found a significant effect of face logos in the long SOA session, which indicated that the choice rate of smiley cued images was higher than that of sad cued images (smiley:  $M = 52.1\%$ ,  $SE = 1.1$ ; sad:  $M = 47.9\%$ ,  $SE = 1.1$ ;  $p < 0.05$ ). No difference on choice rate between smiley and sad faces was found in the 100 ms SOA condition (smiley:  $M = 50.2\%$ ,  $SE = 1.0$ ; sad:  $M = 49.8\%$ ,  $SE = 1.0$ ;  $p > 0.1$ ).

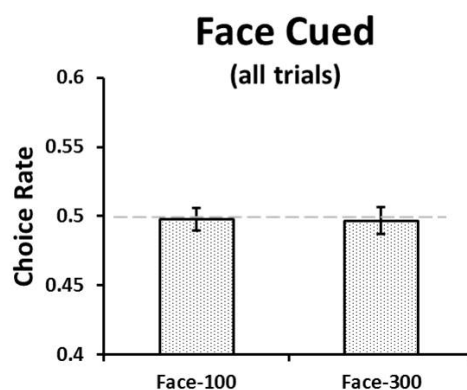


Figure 3. The probability of cued choice from all trials in the emotional cueing experimental sessions. The choice rates of all cued images are presented in the face-100 session (mean  $\pm$  SE =  $0.498 \pm 0.008$ ), and the face-300 session (mean  $\pm$  SE =  $0.497 \pm 0.010$ ). No significant effect was found from one-way ANOVA analysis;  $p > 0.1$ .

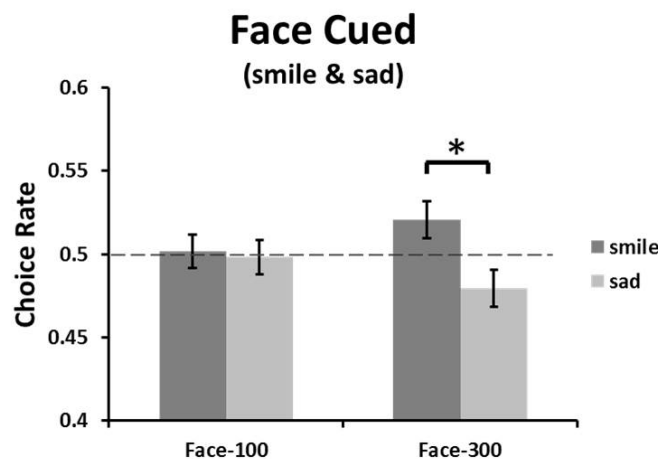


Figure 4. The probability of cued choice varied by different face logos in the emotional cueing experimental sessions. In the face-100 session, no significance was found between the choice rate of smiley cued images (mean  $\pm$  SE =  $0.502 \pm 0.010$ ) versus sad cued images (mean  $\pm$  SE =  $0.498 \pm 0.010$ ). In the face-300 session, the choice rate of smiley cued images (mean  $\pm$  SE =  $0.521 \pm 0.011$ ) was higher than that of sad cued images (mean  $\pm$  SE =  $0.479 \pm 0.011$ ), as confirmed by student T-test analysis. A two-way ANOVA revealed an interaction effect between the face-100 and face-300 conditions;  $p < 0.05$ .

## Discussion

The current study addressed the question of whether our preference decision-making could be affected by manipulating the orienting of attention. To this aim, we presented neutral dot and emotional facial cues in a strictly controlled spatial cueing paradigm, by asking for a preference choice between a pair of same categorized food images. As per the findings of Shimojo et al. (2003) and the principle of the Posner cueing paradigm, it was expected that images presented at the same side as the cue in

a short time interval (SOA) condition would be more likely to be preferred; the opposite result would hold true in the long SOA condition. The present finding from the dot cueing experiment clearly showed the expected trend: the choice rate of cued images was particularly reduced in the long SOA condition. It indicated a possibility of bias from visual attention to preference decision-making, and the bias happened most likely because of “*inhibition of return*” (IOR) effect. Since the initial discovery of “*inhibition of return*” by Posner & Cohen (1984), the inhibitory function has often been thought of as a useful phenomenon to explore the effect of peripheral cueing in recent years (e.g., Fox, Russo, & Dutton, 2002; Taylor & Therrien, 2005; Theeuwes, & Van der Stigchel, 2006; Stoyanova, Pratt, & Anderson, 2007; Weaver, Aronsen, & Lauwereyns, 2012). Different from old studies, we applied the IOR effect on evaluative decision-making in the present experiment, instead of the typical perceptual decision-making tasks from previous papers. Considering the principle of IOR described in early studies (e.g., Klein, 1988 & 2002; Pratt, Kingstone, & Khoe, 1997; Tipper, Weaver, Jerreat, & Burak, 1994), the result of the present study gave an important implication for the relationship between visual attention and evaluative decision-making; that is, the effect of IOR affects our decision-making not only in perceptual processing but also in evaluative processing, via attention shifting. Moreover, our result may also indirectly associate to the explanation of likelihood and looking time in the gaze cascade hypothesis, namely, more orienting of attention may influence the looking time to the cued target, which in turn affects the preference choice. Interestingly, our result suggest that the influence would be mainly negative, with longer SOA: The cues effectively turn people off the cued images, by inhibiting the return of attention there.

With respect to the result from emotional cueing experiment, however, no significant difference in choice rate was observed from analysis of all performed trials, regardless of face type. It indicated an emotional cueing influences the evaluative decision-making not only by attention shifting. The fact that the face-logo cue contains more meaningful features than a neutral dot cue may explain the reason of non-difference result, that is, an emotional cueing plays a role in both processing of attention shifting and emotional priming. In other words, visual attention can be affected by emotion, to be more specific, our orientation of attention correlates with emotional expression. Indeed, the relationship between emotion and decision-making has been studied in many aspects since long time ago and it is believed that emotion interacts with evaluation and motivation, irrespective of its own characteristic decision process (Ortega y Gasset, 1957; Strongman, 1978; Toda, 1980). Moreover, the impact could either be positive or negative (Tomkins, 1970). Accordingly, the different findings between the two kinds of experiments could be due to difference in path of processing in general, since it is reasonable to have a more complex conscious processing in the face-logo cueing experiment, with both of attentional and emotional factors.

Another interesting finding from the emotional cueing experiment is the different ratio of choosing cued images with different types of face logo in the face-300 condition. The result revealed a higher choice rate of cued images with smiley face cued than with sad face cued, even though no similar trend was observed in the face-100 condition. The possible explanation for the different result in these two sessions could be the less time for detecting or recognizing the face logo in face-100 condition, which has a shorter time delay (50 ms) in the paradigm. Unlike the case of

face-300, in the face-100 session it is more difficult to realize the cue or the content of the cue owing to an extremely short time interval, resulting in insufficient time to complete a recognition process; participants may have realized the cue but in a very rush processing which brought a conflict with the task processing. In addition, compared to face-100, face-300 showed a significant difference between smiley and sad face logo. This observation is in line with previous studies (e.g., Tomkins, 1970), suggesting that people tend to choose positive options rather than negative options; in the present study, the positive options were the images cued by the smiley face logo. Additionally, taking into account the IOR effect, it appears that this mechanism of emotional processing interacted the IOR in evaluative decision-making; namely, a positive expression counteracted against the effect of IOR, leading to a higher result compared to the choice rate of smiley cued images in face-100; a negative expression, however, exacerbated the effect with IOR. Thus, the strongest effect observed in the present study is that of a sad face cue at long SOA, effectively a strong negative influence, driving people away from choosing the cued image.

In summary, in light of the results of the present study, we suggest that visual attention plays an active role to influence the preference decision-making; furthermore, the “*inhibition of return*” mechanism prominently affects the evaluative decision-making in both attentional and emotional cueing. Several questions remain open for future research, such as whether different types of cue capture different levels of visual attention, and to what extent this would influence the preference decision-making; also, it remains unclear what is the relationship between the first fixation and preference choice. To address these issues, an eye-tracking system and more controlled paradigm are warranted. This future work can build on the present study to further our understanding of the mechanisms of visual attention in evaluative decision-making.



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*The Effectiveness of the Application of Computer Supported Collaborative Learning in Chinese Learning*

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**Abstract**

Computer supported learning has become a major trend in language learning and teaching in the 21st century. However, there are still few studies addressing the application of computer supported collaborative learning in teaching and learning Chinese as a foreign language. The researchers designed a distance collaborative program in which 72 Chinese learners in the US and 27 Chinese pre-service teachers in Taiwan could complete a series of collaborative assignments via video conferencing and communicating tools. Within this designed collaborative structure, Mandarin Chinese language learners could practice the target language, and Mandarin Chinese language pre-service teachers could also practice teaching foreign students. The result of this study showed that this distance collaborative program had a positive impacts on the Chinese learners' academic outcomes. The students in the experimental group (mean=78.21) outperformed those in the control group (mean=68.37) significantly ( $t[42]=2.34, p=.02$ ) Besides, it was found that students with different backgrounds and learning behaviors performed differently within this computer supported collaborative learning structure. Those students who studied Chinese less than one hour per week in the experimental group scored better on the post-test than those in the control group. It was also found that those who had Internet surfing ability had better improvement than those who did not. The overall results suggested that computer supported collaborative learning can be an effective learning model for the Net Generation.

Keywords: computer supported collaborative learning, Chinese learning, collaborative problem solving.

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## Introduction

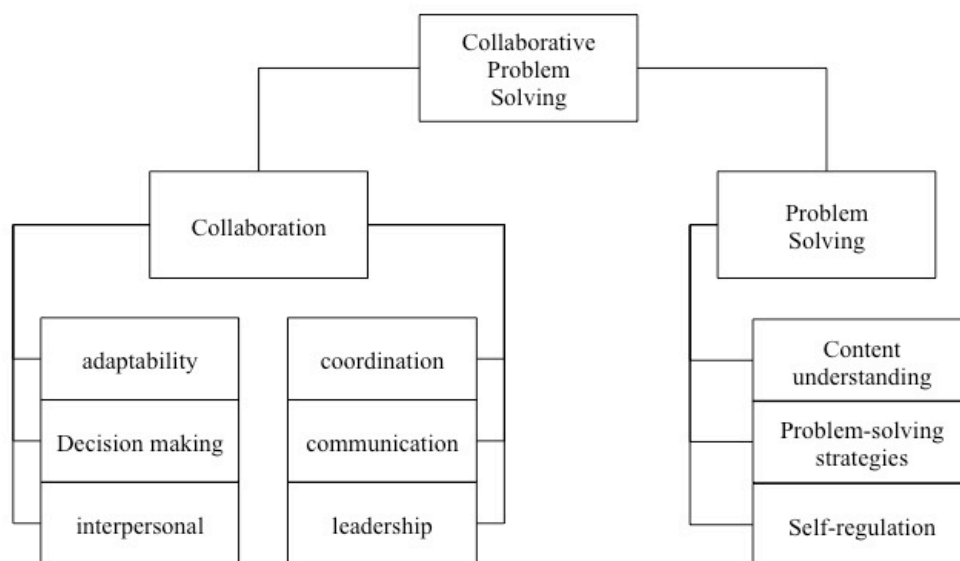
With the growth of Chinese economy, learning and teaching of Mandarin Chinese language has emerged in many non-Chinese-speaking countries as well as Chinese-speaking countries. There is the rapid growing of Mandarin Chinese language program in K-12 education in the US and teaching Chinese as second language program in Chinese speaking country. However, it is found that Chinese language learners need more Chinese language and cultural exposure to have better effect of Chinese learning. Vice versa, Chinese pre-service teachers in teaching Chinese as Second Language program need sufficient Chinese teaching exercises to foreign students to develop their teaching competence. As a result, the researchers in this study took advantage of the framework of computer supported collaborative learning to integrate these two educational main streams and needs.

The researcher tried to break through the boundary that restricts Mandarin Chinese learners and Mandarin Chinese teachers from each other via online conferencing and communicating tools. This research is one of the earliest research studying the feasibility and effectiveness of computer supported collaborative learning in a Chinese learning and teaching program. This research project will shed light on the impact of this computer supported collaborative learning on Chinese learning and teaching as well.

## Literature Review

Collaborative learning refers to learning environments where small teams collaborate to achieve a common goal, and problem solving is “cognitive processing directed at achieving a goal when no solution method is obvious to the problem solver” (Mayer & Wittrock, 1996, p. 47). Mayer and Wittrock (2006) defined problem solving as “cognitive processing directed at achieving a goal when no solution method is obvious to the problem solver” (p. 287). According to O’Neil, Baker and Chuang (2009), collaborative problem solving is defined as problem solving activities that engage the interaction of small group members to achieve a common goal. Figure 1 shows the collaborative problem solving model, which is first divided into two components: collaborative learning and problem solving.

Figure 1



The other component of the collaborative problem solving model is problem solving. O'Neil (1999) defined three requirements necessary to being a successful problem solver: (a) content knowledge—understanding something; (b) problem solving strategies—having the skills to solve problems; (c) self regulation—planning and monitoring problem solving progress. In this study, the researcher used the exams to measure students' content knowledge. Further, the learning attitude questionnaire was applied to evaluate students' problem solving strategies.

The researcher in this study adopted the Student Attitude Questionnaire (Meuschke, Dembo & Gribbons, 2006) and collaborative assignments to evaluate participants' problem strategies. A self-regulation questionnaire (O'Neil & Herl, 1998) was designed to assess self-regulation in problem solving.

## Method

### Background

One of the researchers was a professor working in a teaching Chinese as second language program in a university in Taiwan, where her students, native Chinese speakers, were trained to become Mandarin Chinese language teachers, while the other researcher was teaching Mandarin Chinese learners in middle and high schools in the U. S. In order to provide the Mandarin Chinese language learners opportunities to practice the target language, and Mandarin Chinese language pre-service teachers to exercise their teaching to foreign students, the researchers arranged a computer supported collaborative learning program, in which the pre-service teacher and Chinese learner worked as a team to solve a series of collaborative problems via online communication tools, such as Skype and emails. See the following figure 2.

Figure 2

## Collaborative Homework

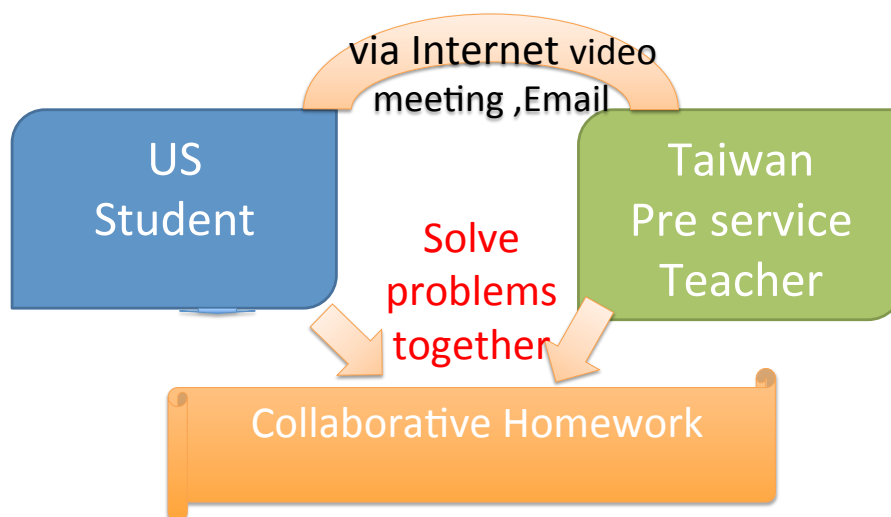


Figure 2 is the demonstration of collaborative homework.

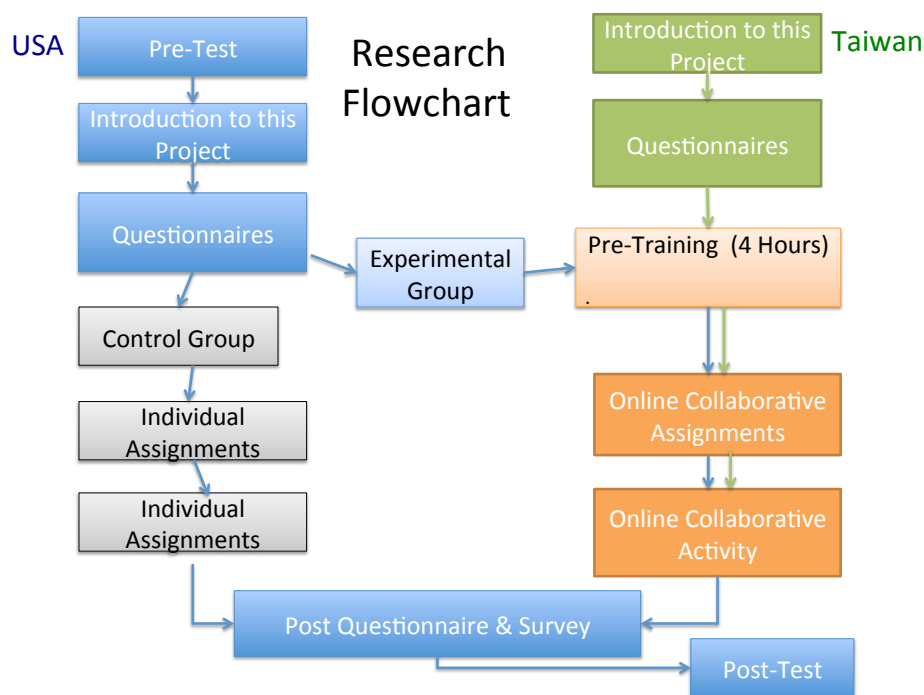
This research, which involves international collaboration between Chinese pre-service teachers and learners, is one of the earliest research studying the effectiveness of computer supported collaborative learning in the field of Chinese language learning. This program had 27 pre-service teachers who enrolled Teaching Chinese as Second Language course in a university in Taiwan and 72 teenagers who took Chinese courses in middle school and high school in the U.S from 2011-2012. There were 24 teenagers assigned in the control group and 48 in the experimental group. Every teenager in the experimental group worked with a pre-service teacher from Taiwan to complete a series of collaborative assignments via Skype video conferences, while students in the control group individually completed their computer-based assignments.

### The Method Flowchart

Before this study, there was a pre-test applied to 72 American students recruited in this study. At the beginning of this study, the researchers introduced this study to both American students in Minnesota and pre-service teacher in Taiwan. Then the pre-test questionnaires including background questionnaire, learning attitude questionnaire and so on were administrated to participants in the USA and Taiwan. 48 American students were recruited in the experimental group, which is consisted of 21 students of level 1 and 27 students of level 2. All the participants in the computer supported collaborative learning program which included the experiment group and pre-service teachers had a pre-training about how to apply the video meeting software, schedule the video meeting with the partner and so on. The students in the experimental group would have to work with 27 pre-service teachers in Taiwan to complete the

collaborative assignments and activity. The method flowchart is as followed in Figure 3.

Figure 3



**The blue line- American students**

**The green line-Taiwanese pre-service teacher**

**This is a figure of research flowchart**

### Data Collected

The researcher would compare American students' final exam grade in the 1<sup>st</sup> semester with final grade in the 2<sup>nd</sup> semester and related pre-post questionnaires to study to the effectiveness of this computer supported collaborative learning program. Teacher's log included teacher's observation on this program would be studied and further interview would be conducted.

### Results and Discussion

The following section is organized with the research questions in this study.

#### **Research question one: is this distant computer supported collaborative learning program effective?**

Comparing the academic performances of control group and those of experimental group, we found that the average of pre-test for control group was 83.29 (SD=11.63) and that for experimental group was 82.46 (SD=11.88). Apparently, these two groups had similar performance on pre-test. After the intervention was applied on the

experimental group, the post-test scores for both groups were 68.37 (SD=17.37) for control group and 78.21 (SD=10.02) for experimental group respectively. The independent sample t-tests were performed to compare the post-test scores and the significant difference was found. ( $t[42]=2.34$ ,  $p=0.02$ ) Therefore, the students in experimental group out-performed those in control group on their test scores. This indicated that our intervention could improve students' academic performances.

Table 1 Pre-test and Post-test scores

Pre-test Score (out of 100)		Post-test Score (out of 100)	
Control (N=24)	83.29 ( 11.63 )	Control (N=24)	68.37 ( 17.37 )
Experimental (N=21)	82.46 ( 11.88 )	Experimental (N=20)	78.21 ( 10.02 )

( ) standard deviation

**Research question two: if this program is effective, will the students of specific background\ traits benefit more from this computer supported collaborative learning environment?**

Before our study is carried out, the researchers conducted a background information questionnaire to access students' demographic information and learning behaviors. Both demographic information and learning behavior were used to form the subgroups among the students. (e.g. Has learned Chinese for less than one year versus for more than one year.) The researchers investigated if any of these subgroups showed differential academic performances or not. The factors associated with subgroups could be regarded as the potential confounding factor and these confounding factors may influence the effectiveness of computer supportive collaborative learning. It is important to note that the groups were formed based on the questionnaire before the intervention is applied.

First, the researchers used the percentage of differences between experimental group and control group defined by  $(\text{Experimental} - \text{Control}) / \text{Control} \times 100\%$ . The advantage of this statistics is that the value would be invariant toward the different difficulties between pre-test and post-test. Therefore, we first calculate the percentage of differences for all subgroups derived from our questionnaires. The subgroup with large percentage of differences will be studied in more detailed. The selected and significant results were described and discussed below.

***The students with less than one hour study time are benefited the most from this study.***

Before the study is conducted, the researchers found that 56.9% of students are studying Chinese less than one hour a week. The students were divided into two groups, less than one hour/week study time and more than one hour/week study time. Coupled with pre-test and post-test, there would be four possible combinations. The percentage of differences for these four subgroups are:



Table 2 Percentage of differences for subgroups based on study time.

	Percentage of differences
Study time less than 1 hr/wk, Pre-test	0%
Study time less than 1 hr/wk, Post-test	22%
Study time more than 1 hr/wk, Pre-test	-6%
Study time more than 1 hr/wk, Post-test	-6%

Table 3 Statistics for subgroups based on study time.

Study time less than 1 hr/wk, Pre-test (out of 100)		Study time more than 1 hr/wk, Pre-test (out of 100)	
Control (N=12)	83.64 ( 10.79 )	Control (N=12)	82.95 ( 12.9 )
Experimental (N=18)	83.23 ( 12.67 )	Experimental (N=3)	77.88 ( 3.45 )
Study time less than 1 hr/wk, Post-test (out of 100)		Study time less than 1 hr/wk, Post-test (out of 100)	
Control (N=12)	65.28 ( 17.64 )	Control (N=12)	71.46 ( 17.29 )
Experimental (N=18)	79.40 ( 9.79 )	Experimental (N=2)	67.5 ( 4.71 )

The numbers in parenthesis are standard deviation.

The subgroup, study time less than 1 hr/wk on Post-test, has the largest percentage of difference. Using independent two-sample t-test, we found that the post-test scores of experimental group with less than 1 hr/wk study time was significantly larger than those of control group with less than 1 hr/wk study time. ( $t[28]=2.52$ ,  $p=0.02$ ) Moreover, there is no significant difference between these two group of students on pre-test scores. One possible explanation for this result is that our study requires students to perform online video chat. Such requirement promoted students to study more before the online video chat was carried out. The pressure and motivation from talking with another person naturally increases students' study time. Researchers also had in-depth conversation with selected students and they all reported the increased study time on Chinese for preparing the online video chat.

***The students who used facebook benefited from this study.***

Based on background questionnaire, we found that 68.1% of students use facebook, 47.2% use e-mail and 15.3% use messengers. Therefore, based on students' online activities, we group the students into facebook users and non-facebook users. Similarly, coupled with pre-test and post-test, there will be four subgroups.

Table 4 Percentage of differences for subgroups based on online activities.

	Percentage of differences
Facebook users, Pre-test	3%
Facebook users, Post-test	26%
Non-facebook users, Pre-test	-8%
Non-facebook users, Post-test	-1%

Table 5 Statistics for subgroups based on online activity.

Facebook users, Pre-test (out of 100)		Non-facebook users, Pre-test (out of 100)	
Control (N=15)	81.03 (11.52)	Control (N=9)	87.07 ( 11.45 )
Experimental (N=13)	83.51 (11.7)	Experimental (N=7)	80.39 ( 12.92 )
Facebook users, Post-test (out of 100)		Non-facebook users, Post-test (out of 100)	
Control (N=15)	62.94 ( 15.45 )	Control (N=9)	77.41 ( 17.40 )
Experimental (N=13)	78.97 ( 11.04 )	Experimental (N=7)	76.79 ( 8.41 )

The numbers in parenthesis are standard deviation.

The subgroup, facebook users on post-test, has the largest percentage of differences. Using independent two-sample t-test, we found that the post-test scores of facebook users in experimental group was significantly larger than those of facebook users in control group.

***The students who used skype benefited the most from this study.***

Based on background questionnaire, we found that 56.3% of students use any form of video conferencing software. Among these students, 63.9% of them have used skype prior to this study. Therefore, based on students' prior experience on skype, we group the students into skype users and non-skype users. Similarly, coupled with pre-test and post-test, there will be four subgroups.

Table 6 Percentage of differences for subgroups based on prior experience on skype.

	Percentage of differences
Skype users, Pre-test	4%
Skype users, Post-test	20%
Non-Skype users, Pre-test	-6%
Non-Skype users, Post-test	9%

Table 7 Statistics for subgroups based on online activity.

Skype users, Pre-test (out of 100)		Non-Skype users, Pre-test (out of 100)	
Control (N=13)	82.10 ( 13.62 )	Control (N=11)	84.71 ( 9.21 )
Experimental (N=10)	85.27 ( 12.35 )	Experimental (N=11)	79.92 ( 11.41 )
Skype users, Post-test (out of 100)		Non-Skype users, Post-test (out of 100)	
Control (N=13)	68.46 ( 18.42 )	Control (N=11)	68.26 ( 16.94 )
Experimental (N=10)	82.33 ( 10.79 )	Experimental (N=10)	74.09 ( 7.59 )

The numbers in parenthesis are standard deviation.

The subgroup, skype users on post-test, has the largest percentage of differences. Using independent two-sample t-test, we found that the post-test scores of skype users in experimental group is significantly larger than those of skype users in control group. ( $t[21]=2.25$ ,  $p=0.03$ ) This is probably due to the fact that skype is the primary video conferencing software used in this study. There will be less technological anxiety for the skype users than non-skype users. However, proper training on all students before the study is carried out could reduce this confounding effect greatly.

### **Research question three: will the experimental group develop different learning behaviors in computer supported collaborative learning environment?**

Based on the teacher's log, observation and follow-up interviews, the researchers found that this distant study enhanced the experimental group's social network with classmates and teacher. Before this study, the students interacted with the teacher only in the class and via email. After this study, the students in the experimental group interacted more frequently with the teacher via more communication tools such as email, skype and FB.

As for the students' relationship with the tutors in Taiwan, at the beginning of this study, experimental group students had anxiety to interact with the target Chinese language speakers in the dyads. However, after this intervention, students were impressed by the tutors' teaching enthusiasm and would like to work with the tutors in the future.

The researcher found that due to this collaborative assignments, the students in the experimental group automatically work together as a study group to preview the content of collaborative assignments before working on the collaborative problems with the tutor in Taiwan. Furthermore, it was found that such a Chinese-study-group decreased students' anxiety of facing the Chinese native speaker, enhanced students' social network with the classmates and increased students motivation to study Chinese. Such a Chinese-study-group had never occurred in this Chinese program in high school. Before this intervention, students in the Chinese program completed the

Chinese assignments alone with the computer. Chinese study group is a surprising results stimulated by the collaborative learning design in this study.

### **Conclusion**

Based on the results of this study, the computer supported collaborative learning has positive impact on Chinese language learning. This finding is consistent with the previous literature, in comparison to individual learning with computer, the collaborative learning with computer has better academic performance( Lou&Abrami, 2006; Lou, Abrami, &d' Apollonia, 2001). Students of specific background\traits can benefit more from this distant collaborative learning structure. The collaborative learning structure could better the academic performance of those who studied less than one hour a week. It was found that students mastered video conference or social network software have better academic performance under the computer supported collaborative learning environment.

### **Implication**

According to the results of this study, the pre-service teacher and student in different cities working in a dyad is feasible and academically effective. This distant collaborative learning model can be a solution to the current problem, which the Chinese learners and pre-service teachers are in the different countries.

In this study, it is found that students that have higher literacy of video conference or social network software can have better academic performance under the computer supported collaborative learning environment. Therefore, to increase the pre-training courses is needed to enhance the effectiveness of future application of CSCL.

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***Philippine Practice of Forensic Clinical Psychology in Marital Nullification:  
From Client Assessment to Court Appearance***<sup>1</sup>

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**Abstract**

The dearth of documentation of forensic clinical psychology practice in Philippine cases of marital nullification, as seen from the lens of forensic clinical psychology, prompted the author-researchers to contribute their professional knowledge in their clinical practice and involvement in the forensic setting.

They cited their significant lived experiences in their professional practice of forensic clinical psychology, from sharing the methodology that they used from the intake and assessment of their clients, to their actual court appearance as expert witness. Then, they distinguished between contested and uncontested cases and identified as well their other roles and responsibilities in various contested and uncontested cases; they likewise elaborated on these roles and responsibilities.

Further, they shared their techniques on the routine cross-examination questions that they encountered, as they also underscored the usual mistakes that the other practitioners might have possibly committed. Still further, they accounted for the various acceptable practices in the area of expert witnessing.

Throughout this paper then, the two practicing forensic clinical psychologists made recommendations into the possible areas of best practices. They concluded that while it was their basic responsibility to do no harm to their clients, their loyalty to ferret out the truth occupied a preferential treatment in the hierarchy of their roles and responsibilities.

Keywords: forensic psychology, forensic assessment, nullification, expert opinion

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<sup>1</sup> This article was culled from the earlier dissertation proposal of the first author in his doctoral studies at the University of Santo Tomas Graduate School, Manila, Philippines.

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## Introduction

The idea of marital nullification in the Philippine civil society resonated very strongly when it was initially introduced as an integral part of its family law. But even before it became a practice in Philippine civil society, marital nullification already brewed silently as part and parcel of the Roman Catholic Church's doctrinal tradition that had long been enshrined in its very canon.

It was only when the Family Code of the Philippines, the country's family law, introduced the concept of psychological incapacity that this civil society actually took notice of this practice as a very good alternative to divorce. Philippine society, being a predominantly Roman Catholic country, never allowed divorce to flourish in its territory in contrast to the other Roman Catholic countries where divorce already existed.

This then became the take off point for the practice of forensic psychology in the country. The services of clinical psychologists, including the authors of this paper, were skillfully engaged into by the spouses who underwent stormy and destructive marital relationships, and who needed to determine whether or not either or both of them was psychologically incapacitated to perform his or her essential marital obligations.

The essential marital obligations of these spouses, as defined in the Philippine family law, included the obligation to live together as husband and wife under one roof, the obligation to render mutual love, respect, support and loyalty for each other, and the obligation to refrain from engaging in any activity that would put his or her other spouse at the risk of death, danger, or injury (Family Code, 07 July 1987).

As the practice went on, the authors noted the dearth of documentation of forensic clinical psychology practice in Philippine cases of marital nullification, as seen from the lens of forensic psychology itself, and not from the usual legalities whose theoretical perspective had long set its foothold. They similarly underscored the common mistakes that forensic psychology practitioners often committed in the court arena. With these observations at hand, they then opted to share some of their rich clinical experiences in the court setting.

## Scope and limitations

The present paper was specifically intended as a documentation of the actual practice of forensic psychology in marital nullification for Philippine psychologists. It did not intend to include the documentation of the practice of forensic psychiatry in the same area of marital nullification. Clearly, this documentation also combined both the discipline of psychology, which had been described as empirical and nomothetic, and the discipline of law, which had been characterized as *stare decisis* based and ideographic (Costanzo and Krauss, 2010).

The present documentation also strictly observed the meticulous requirements of confidentiality under the Rule on Violence Against Women and Their Children (19 October 2004) and under the Rule on the Declaration of Absolute Nullity of Void Marriages and Annulment of Voidable Marriages (15 March 2003), so that the



identities of all the parties involved, including the women and children and the other forensic clinical psychologists, were made *in cognito*.

### **Marital nullification in forensic psychology**

Forensic psychology referred to that specialized area of psychology that was concerned with anything, or to potentially anything, that had reference to the discipline of law. While forensic psychology was generally limited to the practice of psychology as it related to the legal system, this specialized area was further limited in the Philippines to the actual clinical practice of psychology in the courts.

The practice of the majority of the current forensic psychology professionals in the country initially took off from their practice in the area of marital nullity. Records in the Office of the Solicitor General, an agency of the Philippine government, revealed that the documented cases of marital nullity stood at 10,528 as of 2012 (Calonzo and Cayabyab, 2013).

This number then would have to be matched by the number of registered psychologists who practiced in the clinical setting. But then again, not every registered clinical psychology practitioner actually went to the courts and became a forensic clinical psychology expert witness. There were those who willingly did the psychological assessment on their client spouse, but were unwilling and even unprepared to engage in the forensic arena.

Bartol and Bartol (2008), meanwhile, stressed that this specialized area of psychology actually included both research and practice. It was for this reason that the author-researchers of this academic paper noted the scarcity of the documentation of the actual practice of forensic clinical psychology in the court setting. The limited forensic clinical psychologists who practiced, *vis-à-vis* the demand for them to handle the voluminous cases, must have also been the reason for this deficiency.

Historically, it was the Roman Catholic Church who captured the market for matrimonial annulment (Davidson and Ekelund, 1997). The Family Code's concept of a petition for the judicial declaration of nullity of marriage was, to say the least, a duplicate of the church's matrimonial annulment. With that in mind, we needed to know then, as forensic clinical psychology practitioners, whether or not the civil courts actually recognized the marital annulments resolved by the church; conversely, we also needed to know whether or not the church recognized the marital nullity that the civil courts resolved.

The response to these queries was readily answered by the very professionals who practiced in the forensic setting. Church annulments merely had a persuasive effect on the resolution of the civil cases of nullity. In short, the decree of annulment was only used for evidentiary purposes in resolving the civil cases of nullity. From the church's end, meanwhile, it was very unlikely that she even gave weight to these resolved civil cases of nullity, considering the moral authority over the civil authority on which she stood.

Meanwhile, the very concepts of nullity and annulment in the present civil society created a mix-up when lay people started to equate civil nullification with civil

annulment. As practitioners, we thought that it was quite undeniable that the framers of the country's family law actually thought of civil nullification and civil annulment of the marital union from two different contexts of reality.

Civil annulment was generally based on vitiated consent; whereas, civil nullity was generally based on psychological incapacity. Then, whenever civil annulment was granted to the spouses, the marital union between these spouses remained valid until such time when the very decree of annulment was handed down to them; whereas, whenever civil nullity was granted to the spouses, the actual effect was like no actual marital union took place, the marriage being void *ab initio*.

### **The psychological process in marital nullification**

The psychological process in **Figure 1-A** and in **Figure 1-B** conceptually explained the psychological procedures used by the author-researchers from the time of the intake, to the time when they conducted the psychological assessment with their clients, to the time when they also generated the forensic mental health assessment report, and to the time when they personally appeared as expert witness in the courtroom.

Based on the illustrated conceptual diagram of the psychological procedures, both the petitioner and the respondent spouse could readily undertake the psychological assessment, and ideally, they should. But the reality in practice tended to indicate that there were so many instances when the respondent spouse did not appear for psychological assessment despite his or her receipt of the formal letter of invite from the forensic clinical psychologist.

In those cases when the respondent spouse did not appear, the psychological evaluation should still proceed and pursued to its logical end because the aggrieved petitioner spouse must not be held hostage by the lack of interest or by the indecision of the respondent spouse to appear and undertake the psychological assessment, especially if no valid reason was provided by the respondent spouse.

In the case of *Brenda B. Marcos v. Wilson G. Marcos* (19 October 2000), the Philippine Supreme Court stressed that the psychological evaluation by the forensic expert was not at all a *conditio sine qua non* for the validity of the marital nullification. The High Court raised the point that the validity of the nullification could still be established by the totality of the evidences presented at hand and not just by the lone psychological evaluation presented by the forensic clinical psychologist.

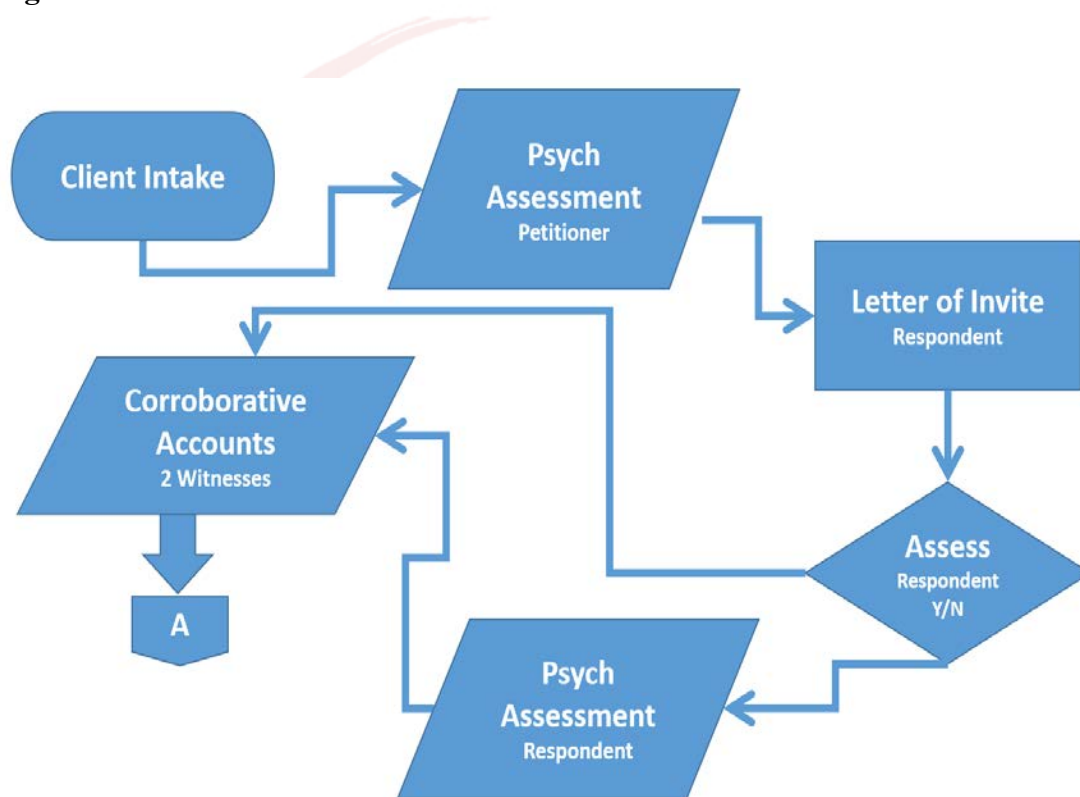
Now, whether or not the respondent spouse actually underwent the psychological assessment, the additional information especially from the corroborative accounts should still be collated. Both the empirical reviews and the actual practice, in the meantime, revealed that the corroborative accounts from the witnesses were heavily relied upon in the forensic setting. Accounts of at least two witnesses who had personal knowledge of the marital relationship of the spouses, including their personal knowledge of the spouses' premarital background, would be most ideal and useful.

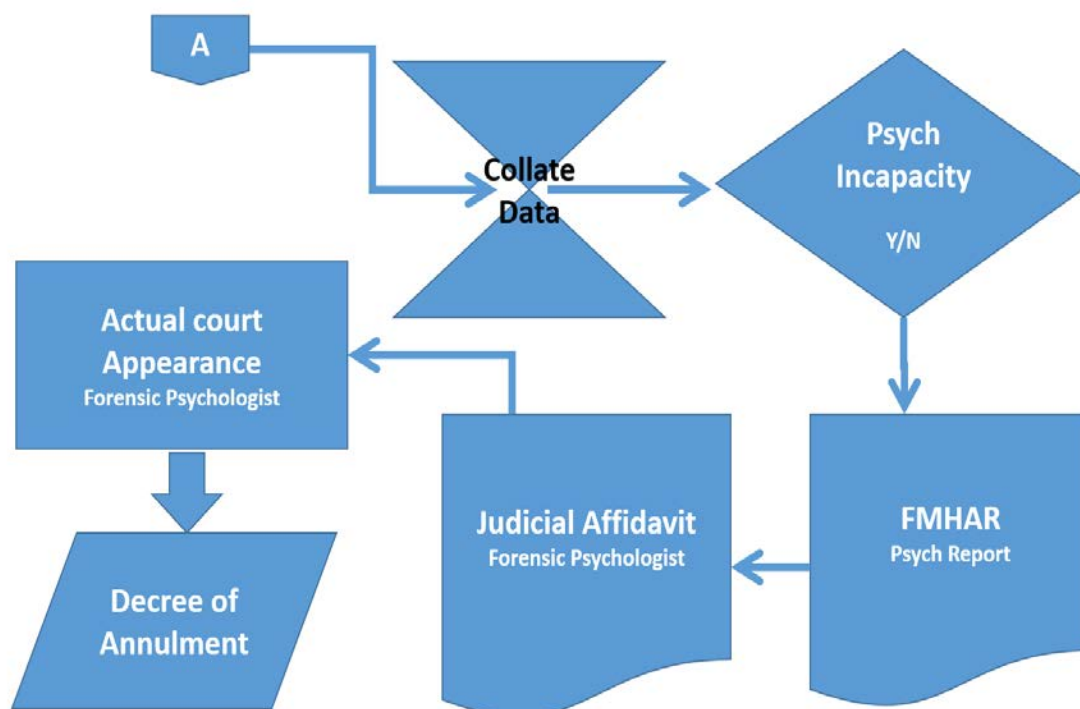
Collating all the available data then was only done after both the spouses were psychologically assessed and after the corroborative accounts of their witnesses were

taken into consideration. It was only at this point then when the forensic clinical psychologist decided whether or not either or both the spouses were psychologically incapacitated. The decision to declare either or both of these spouses as psychologically incapacitated would then be documented in a forensic mental health assessment report, more popularly called as the psychological evaluation report.

The psychological report, together with the forensic clinical psychologist’s judicial affidavit, would then be forwarded to the petitioner spouse’s legal counsel, and eventually to the trial court. Upon submission of these documents, the forensic clinical psychologist later actually appeared in the trial court as expert witness, assuming that his or her credentials qualified and were accepted, as such, by the same trial court.

**Figure 1-A**



**Figure 1-B**

### Contested versus uncontested cases in marital nullification

When the respondent spouse simply agreed to everything that was said in the petition or the respondent spouse failed to file an answer for whatever reason, the petition filed would be characterized as uncontested. If the respondent spouse, on the other hand, filed an opposition, then the petition was contested.

In instances of uncontested petitions, the court *a quo* could readily assign the public prosecutor to investigate the case for possible collusion. In addition, a representative from the Office of the Solicitor General would have the authority to investigate for possible collusion. This was so because under the country's family law, collusion between the spouses was frowned upon.

Contested cases, meanwhile, gave the forensic clinical psychology practitioner much leeway to charge higher professional fees. In most instances when the cases were referred by the petitioner spouse's legal counsel, it was this legal counsel who determined the professional fees to be paid to the forensic clinical psychology practitioner. In some other cases, the forensic clinical psychology practitioner advocated for the socialized scheme of charging professional fees; meaning, the amount charged was based on the client spouse's ability to pay. So that, if the client spouse did not have the resources, the case was handled *pro bono*, meaning, free of charge.

Contested cases similarly compelled the forensic clinical psychologist to be more rigid and stricter in the conduct of the psychological assessment. For instance, the

forensic clinical psychologist made sure that the assessment procedures used were Daubert and Frye compliant (Welch, 2006; Shapiro, Mixon, Jackson, and Shook, 2015).

Two of the more popular psychometric tests that had been identified as Daubert and Frye compliant were the Minnesota Multiphasic Inventory-2 (MMPI-2), the latest version of which was the MMPI-2-RF (Minnesota Multiphasic Inventory-2-Restructured Form), and the Millon Clinical Multiaxial Inventory-III (MCMI-III).

Projective techniques, such as the Rorschach Inkblot Test, the Thematic Apperception Test and the projective drawings, which had been highly criticized in the empirical literature as having low clinical utility (Lilienfeld, Wood, and Garb, 2000), would, in the meantime, continue to be used and allowed in the court setting by the trial court judges.

In the Philippine practice of forensic clinical psychology in marital nullification, the use of the projective techniques were actually combined with the more powerful tests such as the MMPI-2 or the MMPI-2-RF, and/or the MCMI-III. Collateral information was similarly utilized in addition to the aforementioned traditional psychometric tests and projective techniques.

Further, the inclusion of a locally normed test that specifically measured psychological incapacity – the Psychological Incapacity Rating Scale or PIRS (Ng and Apruebo, 2006) – would not only be most ideal, but would make the entire psychological assessment highly reliable and very credible.

The heavy reliance on a single psychological assessment procedure by some other forensic experts, whether it be a reliance on the use of a lone psychometric test or a lone projective technique, would likely bring about unreliable and doubtful results. In practice, the use of a battery of psychological tests, ideally combining both the psychometric test and the projective technique, tended to bring about a more reliable and credible result.

But following the Daubert, it was still the trial court judge as the “gate keeper” (Neufeld, 2005) who would have the final say in all of the earlier accounts that were made. The use of the general acceptability principle by the scientific community was also recognized by the trial courts. These empirical standards, which were earlier cited in *Rosendo Herrera v. Rosendo Alba and Hon. Nimfa Cuesta-Vilches* (15 June 2005) now appeared to have become part of Philippine jurisprudence.

The additional forensic documentary evidences utilized in support of the assessment in marital nullification included the use of the financial accounts of either or both the spouses, their Facebook, Twitter, Instagram and other social media accounts, their love letters for each other, and their travel documents, to name a few. It was, of course, still expected that forensic practitioners also earlier looked into the marriage certificate and the certificate or certificates of live birth of their children, if they had any at all.

### **Roles and responsibilities of the forensic clinical psychologists in marital nullification**

Forensic clinical psychologists in marital nullity needed to educate their clients. They needed to educate their clients, at the outset, on the scope and limitations of the professional services to be rendered by them. Although most practitioners relied heavily on the so-called psychological contracts that had been unwritten, it would still be in the best interest of both parties to have the matter of the professional agreement in writing.

Possible contents of these professional service agreements with the client involved the requirement for the client to undertake the psychological assessment, including the obligation to undertake the battery of psychological tests, the obligation to disclose fully all clinically relevant facts and details, and the obligation to provide two competent and independent corroborative witnesses (*Republic of the Philippines v. Nestor Galang*, 06 June 2011).

Further, fellow forensic clinical psychologists should be educated on the fact that personality disorders were often seen by the authorities in most, if not all, of the cases of psychological incapacity, as the crux and the most common diagnosis for psychological incapacity. Psychological incapacity, being a legal concept, had long been equated by psychologists to personality disorders (*Psychological Association of the Philippines*, April 2010).

Fellow forensic clinical psychologists should then be aware of the landmark cases that were already laid down, including the case of *Leouel Santos v. Court of Appeals and Julia Rosario Bedia-Santos* (04 January 1995) and the case of *Republic of the Philippines v. Court of Appeals and Roridel Olaviano Molina* (13 February 1997). In the Santos case, the High Court stressed that the incapacity should be mental and not merely physical in nature; in Molina, the Court claimed that the incapacity should be both clinically or medically identified and proven by the experts.

The case of *Leonilo Antonio v. Marie Ivonne F. Reyes* (10 March 2006), meanwhile, took a slightly different path. While it cited the idea of Paranoid Personality Disorder as the crux of the psychological incapacity of the respondent-wife, it similarly emphasized on her pathological lying as it gave a heavy weight on the opinion and conclusion of Dr. Arnulfo V. Lopez with regard to the wife's "fantastic ability to invent and fabricate stories and personalities."

Ackerman (2010) declared that forensic clinical psychologists should also educate the attorneys, not be the other way around. They should do so, for instance, in matters involving the technical nature of personality disorders. They should similarly educate the trial courts that forensic clinical psychologists actually fulfilled the role of *amicus curiae* or "friend of the court" (Barsky, 2012). As such, their primordial responsibility was to help the trial court arrive at the truth.

### **The cross-examination of the forensic clinical psychologist in marital nullification**

Before the forensic clinical psychologist's appearance in court, the supposed forensic clinical psychology expert would be required to submit his or her judicial affidavit, which would then serve as his or her direct examination testimony in the trial court proceedings (Judicial Affidavit Rule, 04 September 2012), provided that he or she qualified as such and his or her testimony would not at all be impeached. The cross-examination would then ensue.

Brodsky (2013) explained that the cross-examination, which would be extracted from the forensic clinical psychology expert witness' direct examination testimonies, was aimed at devaluing and discrediting his or her accounts. Since the cross-examination was really intended to debase his or her accounts, the expert witness should not then expect a giveaway question that readily allowed him or her to escape scot-free from the adversarial nature of the trial court's cross-examination.

When the question propounded during the cross-examination was categorical, the forensic clinical psychologist should not respond in a vacillating manner, but should answer categorically with a yes or a no. But when the question asked could not, however, readily be answered categorically, Brodsky suggested that the forensic clinical psychology expert simply both admit and deny his or her response. That would mean initially admitting the dependent clause and later on denying the independent clause of his or her statement.

In practice, the forensic expert witness could also go as far as directly asking the trial court's permission to be allowed to qualify his or her response by saying, "Your Honor, may I please be allowed to qualify my answer?" If the trial court judge agreed, then the forensic clinical psychologist could go on with his or her elaboration initially and without immediately affirming or negating the rigid cross-examination question that was propounded.

Then, when the issue of the cross-examination centered on the idea that the forensic clinical psychologist was a mere "hired gun" or a professional who was paid with a handsome amount to favor his or her client's cause, the forensic expert could then readily point to the fundamental principles of his or her impartiality. He or she could then cite his or her status as an *amicus curiae* or a friend of the court whose loyalty belonged to the court who first and foremost stood for the truth.

### **Conclusions**

The practice of forensic clinical psychology in marital nullification, being unique in Philippine society, actually enhanced the area of research in forensic psychology which to date continued to be deficient. As cases of marital nullification continued to increase, so did the need to have more clinical psychologists in the forensic setting remained.

In the psychological assessment of their clients, the forensic clinical psychologists' foremost responsibility was to do them no harm. There were, however, legally recognized activities that resulted in this harm, such as when they declared in their

psychological evaluation reports that either or both of the spouses was psychologically incapacitated to perform his or her essential marital obligations.

Then during their actual court appearance as expert witness when their responsibility to their clients would be put to issue vis-à-vis their loyalty to the courts, the experience of these forensic clinical psychologists taught them that they should lay down the very foundations of their impartiality and that they should categorically claim that their loyalty to the court to ferret out the truth occupied a preferential treatment in the hierarchy of their roles and responsibilities as forensic clinical psychologists.

Considering all of the above, the authors of this academic paper then thought that, as forensic clinical psychology practitioners and researchers, it was imperative for the current set of forensic clinical psychology practitioners to motivate the rest of those in the clinical division to get into the practice and help in the research and documentation of the Philippine practice on marital nullification in forensic clinical psychology.





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***Guiding Three- to Six-Year-Old Children into Developing  
a Social Sense of Decorum***

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**Abstract**

This paper evaluated the hypothesis that a parent or caregiver must master three important child-guiding skills to help improve young (three to six years old) children's behaviors: empathy, setting boundaries, and early intervention. The best time to be empathetic with children, to begin setting boundaries, and to utilize early intervention techniques is when they are still very young (Garland, Stone, & Woodruff, 1981). This paper utilized Skinner's learning theory.

Keywords: young children, early intervention, a parent or caregiver, guiding, empathy, setting boundaries

A large, faint watermark of the iafor logo is centered on the page. It consists of the lowercase letters 'iafor' in a light blue font, surrounded by several overlapping, semi-transparent circular arcs in shades of blue and red.

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## Introduction

The theory of behaviorism posits that human beings see their daily life through their education and training. Skinner's (1957) method entails the idea of stimulus, rewarding the desired response, and ignoring the wrong response. Through training and time, the unwanted response is eliminated and only the desired response occurs for that particular stimulus, motivated by the concept of "reinforcement" (O'Donohue & Ferguson, 2001). Skinner believed that people were born as blank slates that were eventually molded and shaped like clay by the environment through the process he referred to as "operant conditioning." Skinner stressed the influence of the environment on individuals. The foundation of Skinner's learning theory consists of the following three parts: stimulus, response, and positive and negative reinforcement. Stimulus comes from the environment and response comes from the individual's reaction to the stimulus. Positive reinforcement can be defined as a positive reward following the performance of a desired response. Conversely, punishment is a negative reinforcement deterring the occurrence of an undesired response.

To test this perception, Hinson (2005) conducted an experiment with college students who were always tardy for class and used food for both positive and negative reinforcement to attempt to modify the students' attendance. Hinson informed the student participants that there would be food during the first ten minutes of class and thus they should be on time; after ten minutes had passed, the food would be taken out. Hinson found that food used as positive reinforcement to prompt the students' attendance for both male and female students. The experiment was a Skinnerian box via presenting a controlled environment (the class) to alter the students' behaviors.

The behaviorists' approach uses a stimulus-response pattern to condition a certain behavior. Pavlov, using a bell as a method of conditioning, was able to make his dog salivate without offering him any food by using the bell as a stimulus (Skinner, 1957). The essence of this approach is to use positive reinforcement to increase the likelihood of wanted behavior and negative reinforcement to decrease the likelihood of unwanted behavior. This model has often been misunderstood as constituting a model of reward and punishment. However, in behaviorism, it is a model of reward and withdrawal of reward, which, to some extent, can be considered a punishment, seen in both the Skinnerian and Pavlovian models of series of stimuli and reinforcement (Miller, 2011). It can also be seen in Bandurian's (1997) model of learning through observation, or second-hand reinforcement.

Children learn by watching how people behave (Bandura, 1997). Bandura (1997), for example, was a behaviorist psychologist who added a cognitive focus to behaviorism. Bandura (1997) regarded reinforcement in terms of expectancy—an expectation of reward in the future, which is useful in observational learning processes. This expectation motivates the reoccurrence of similar positive behaviors and determines the outcome of a child's behavior. However, in Bandura's (1997) model, there is no need for conditioning or a series of trials and errors; instead, observation leads to the same social learning, i.e., second-hand reinforcement, via imitating a model of behavior. Therefore, at times, showing how is more effective than conditioning.

To conceptualize these theoretical stances, when a child performs a certain behavior and the other says "Thank you," he or she will be more likely to repeat that behavior.

S/he learns to associate the reinforcer, thank you, with the behavior. When the child performs an action parents do not like, parents may use a negative reinforcer by saying “No” or “That’s not nice” to decrease the probability of the occurrence of the undesirable action. Therefore, in order to shape a child’s behavior, a parent or a caregiver should first create the motivation in the child to perform certain actions via the use of a reward or reinforcer. Then, they can correct each behavior one at a time. Once a particular behavior is corrected and becomes a habit, the caregiver may gradually stop rewarding this behavior and move on to the next issue.

Bentham offers a utilitarian framework in which a good action is one that brings pleasure. Miller (2011) refined Bentham’s hedonistic utilitarianism by distinguishing between higher-level and lower-level forms of happiness. However, a child’s negative behavior often indicates that the child is coping with challenging (from the child’s perspective) environmental and/or familial circumstances. If left unaddressed by parents or caregivers, such behavior could lead to serious developmental disorders. Thus, early intervention is required. Following the behaviorist approach, parents or caregivers can educate children to replace negative behaviors with positive ones (Garland, Stone, & Woodruff, 1981). In doing so, parents or caregivers may continue to encourage and reinforce positive behaviors and thus help the child elicit additional similar responses. This paper will investigate the thesis that children acquire their negative behaviors after birth (Aldred, Pollard, & Adams, 2001). Furthermore, it evaluates the hypothesis that a parent or caregiver must master the following three important child-guiding skills to help improve young (three to six years old) children’s behaviors: empathy, setting boundaries, and early intervention. The best time to be empathetic with children, to begin setting boundaries, and to utilize early intervention techniques is when they are still very young (Garland et al., 1981).

### **Review of Literature**

Parenting makes a profound difference in a child’s life (Chidekel, 2002). According to Farooq, Jefferson, and Fleming (2005), “Parent education [is] the purposive learning activity of parents who are attempting to change their method of interaction with their children for the purpose of encouraging positive behavior from them” (p. 23). Human development occurs both through and within relationships over time (Siegler, DeLoache, & Eisenberg, 2010). A calm and friendly environment is important in the development of children’s behavior. When parents find it challenging to soothe their child, the child’s irritable behavior affects the parents’ feelings of competency. In turn, this can decrease the parents’ ability to provide a calm and loving environment. Ultimately, the child perceives the parents’ tension, which increases the child’s irritability—and the cycle continues. As with many other issues, realizing the problem is the first step toward solving it, and developing an awareness of the situation is an important step in achieving behavioral change and improvement (Chidekel, 2002). Thus, it is necessary to teach concrete skills to facilitate better parenting and to be more effective in raising children aged three through six. Here, age is indeed relevant since it is an optimum age at which to achieve behavioral change in children.

According to Mann, Pearl, and Behle (2004), parents should learn more about their children’s developmental behaviors to enable them to understand, communicate, and deal with them more effectively. Moreover, Shaffer, Obradovic, Burt, Herbers, and Masten (2009) observed that parenting styles directly influence the kind of parents

children will become. A good (positive and emotionally supportive) parenting style produces quality parents in the future, while maltreatment and harsh and abusive parenting produces a similar parent. Therefore, parenting style is an indicator of the child's future behavior. A child's behavior can reflect his or her underlying range of emotions, including fear or frustration. Chidekel (2002) mentioned that a calm and coherent household is the ideal happy environment for children. It advances the notion that a "calm house" refers to a stress-free environment and care for the children, in which good behavior, love, and warm treatment become sources of trust and secure attachment. It is essential that parents serve as effective role models and set appropriate examples for their children to follow as they mature.

In addition, Cook (2000) contended that children need physical responses and interpersonal relationships. Security is always established according to the nature of attachment. To illustrate this, the child sends cues to the mother, which compels the mother to respond. The mother's responsiveness produces a sense of control over the environment within the child. This encourages the child to become outgoing and extroverted. By acquiring this sense of security and assurance from the mother, the child becomes willing to explore the environment he or she lives in and learn social skills (sense of social decorum). Additionally, Sears and Pantley (2002) found that children are influenced by each other through their shared environment and through good and bad times. This shared situation in the family context of interdependency results in an increasingly strong attachment and in love and affection for one another. Thus, allowing children to share the same room leads to more positive emotional intimacy, suggesting that children perceive togetherness and living in shared social circumstances.

Children are significantly affected by the environment in which they live. Pinderhughes, Nix, Foster, and Jones (2001) assessed the influence of socioeconomic factors (e.g., poverty and neighborhood) on parenting style, on parents' behavior, and, consequently, on the children's behavior. Measuring parents' levels of warmth and harshness in their interaction with their children, Pinderhughes et al. (2001) found that, when a family lives in poverty and in a poor neighborhood, the dissatisfaction with quality of life reduces the level of warmth and intensifies the harshness of treatment. In light of the preceding, Carpendale and Lewis (2006) argued that engaging in and being exposed to unhealthy behaviors as a child (or the absence of a desired behavior) often prevents a child from leading a normal life as an adult. Various unhealthy developmental behaviors, such as social isolation, may be displayed by a child's lack of engagement with peers in games or conversation and/or by their poor language expression and comprehension (due to lack of attention). These factors may be apparent in a child's difficulty in expressing him- or herself, which may lead to crying or screaming. Such situations may descend into a lack of control, which may prevent the child from following directions. Although this may be construed as a sign of rebellion, it could be due to the child's inability to self-regulate or to the child's inability to effectively express him- or herself.

However, a dysfunctional family can create a traumatic or even a depressive experience for the child, which may even silence him or her. Such a family environment produces insecurity or uncertainty among the children. According to Baxendale, Frankham, and Hesketh (2001), both of the aforementioned behaviors—social isolation and poor language expression/comprehension—are similar to

symptoms of autism or Asperger's syndrome. It is always advisable for the child to see a specialist for diagnostic testing if such symptoms are persistence. Difficulty communicating verbally and nonverbally, late language development, and difficulty in making and maintaining eye contact with others are symptoms associated with language development disorder. These outcomes may be demonstrated in the structural and pragmatic aspects of language. Additionally, the lack of social skills, short attention span, and a narrow range of interest may lead to social isolation, which may be evident in the child's indulgence in repetitive behaviors (Baxendale et al., 2001). Rather than being inherited, most of these symptoms are acquired after birth (Carpendale & Lewis, 2006). Being inattentive to children's emotions or traumatic experiences early in life could lead children to demonstrate unhealthy behaviors or prevent the appearance of healthy ones. Left unaddressed, such behaviors may cause the child to cope with experiences using his or her own devices. As a defense mechanism, children tend to subconsciously disengage from the world around them and adopt a routine that mitigates the frustration they experience when dealing with others. Over time, children view this routine as their comfort zone and they feel threatened when they are asked or forced to emerge from it (Carpendale & Lewis, 2006).

### **The Three Important Child-Guiding Skills**

It is critical for parents to master the following three important skills to help improve their (three- to six-years-old) children's behaviors: empathy, setting boundaries, and early intervention.

#### **Empathy**

The perception of empathy starts at a very young age and is probably developed by the manner in which infant and parent are attached to each other emotionally. Secure attachment is an important outcome of empathy. According to Howes, Galinsky, and Kontos (1998), secure attachment is an important outcome of empathy. This attachment is established by parents or caretakers who respond to the infant's feelings positively, so that the infant learns to trust and be concerned with the feelings of others.

Additionally, Berkman, Glass, Brisette, and Seeman (2000) contended that effective and sensitive emotional support provides one with a valuable sense of comfort, which instills feelings of care. In turn, this leads to an overall sense of mental and psychological well-being. Spinrad and Losoya (1999) saw that supportive parenting has a substantial influence on the overall health of the child, both physically and psychologically. Thus, emotional support plays a critical role in developing healthy behaviors among children. Burlson (2003) identified a number of skills that constitute effective, sensitive, and emotional support, such as listening and understanding; expressing love and empathy; and showing concern by being available to address stresses, fears, anxieties, and hurt. These skills should be qualified as "sensitive" to be effective. In his study, Burlson focused on the message as the central point of sensitive emotional support. Thus, the emotional support provider should avoid self-centered messages because these suggest a denial of the recipient's feelings. Rather, messages should recognize and legitimize the feelings of the other.

## Setting Boundaries

Boundaries make a child feel safe, and failing to set them appropriately does a great injustice to the child. Without proper behavior, children will eventually sense that other people at home, at school, or in public places are avoiding them, which can lead to damaged self-esteem. Boundaries serve as the foundation for raising children who conform to proper social behavior. When setting boundaries, it is important to keep in mind that they should be reasonable, age-appropriate, consistent, clearly defined, and easily understood. Of course, boundaries must be enforced by reasonable and consistent consequences (Faroog et al., 2005, p. 27). Baumrind (1991) identified four common parenting styles: indulgent (also referred to as “permissive” or “nondirective”); authoritarian (highly demanding and directive, but not responsive); uninvolved (low in both responsiveness and demandingness); and authoritative (both demanding and responsive). After examining reported parenting and disciplinary practice in 144 working- and middle-class African American mothers of children aged 5–12, Bluestone and Tamis-LeMond (1999) found variation among parents in their disciplinary strategies; reasoning, which is typical of authoritative parenting, was the most regularly reported strategy. Poor parenting practices, such as inconsistent use of positive parenting, have been associated with delinquent behavior in both children and adolescents (Gorman-Smith, Tolan, Zelli, & Huesmann, 1996). Conversely, according to Baumrind (1991), the authoritative parenting style is the most successful in establishing boundaries that are responsive to children’s needs. In short, parents must provide an environment structured around well-defined rules and consequences.

## Early Intervention

Garland, Stone, and Woodruff (1981) addressed the idea that early intervention involves a number of principles that parents and caregivers should follow in order to improve their children’s unhealthy behaviors: goal setting (should be realistic); activity planning; following the child’s lead; following the observe, wait, and listen (OWL) principle; stimulating and maintaining the child’s interest in activities to gain results; and encouraging the child’s positive behavior to elicit additional similar responses. According to Garland et al., early intervention is important because most human learning and development occurs early in life. If intervention is not conducted at the appropriate time, the child may experience difficulty learning a particular behavior later in life. Children’s unhealthy behaviors can be treated using the behavioral method, which includes training them to replace negative (unhealthy) behaviors with positive ones (keeping in mind that early intervention is required to ensure success).

According to Baxendale et al. (2001), there are a number of principles involved in the intervention-based approach, and parents and caregivers should follow these in order to improve their children’s unhealthy behaviors: goal setting (should be realistic), activity planning, following the child’s lead, following the OWL principle, and encouraging the child’s positive behavior to elicit additional similar responses. To illustrate the Hanen Parent Programme developed by Baxendale et al., children are greatly affected by the environment in which they live, and this environment is shaped by the child’s parents. Here, the objective is to help parents understand the development needs of their late-speaking child and to establish a strategy that will help the child develop receptive and expressive skills. The first principle is that



parents should follow the lead set by their children. The child must be given a chance to interact, which will help him or her acquire new skills while having fun. To enable the child to lead, this approach suggests following the OWL principle. Parents should first observe the child carefully to assess his or her every movement. Then, they should wait to give the child a chance to send a message—or they should encourage the child to do so. Finally, parents should listen to every sound the child makes. If the child is experiencing difficulty interacting, the parents may offer a choice and then wait for the child to choose (the choice may be an activity the child enjoys). Alternatively, the parent may entice the child's interest with an object he or she desires in order to prompt the child to ask for it. For example, the mother may offer a closed box of candy and wait for her child to ask for it. There are a number of approaches a parent may use to follow the child's lead. A parent may join the child in play, imitate the child's actions or sounds, interpret messages or actions, and comment on or respond to what the child says or does—or a combination of all of these approaches.

Another means of engaging the child in communication, as Baxendale et al. (2001) noted, is by taking turns with the child. Taking turns means that both sides participate equally in a balanced conversation. Here, the parent must match the child's pace and interest. Parents may use a daily routine as their opportunity to engage the child in interaction. Sometimes a parent must cue the child when he or she does not know how or when to take a turn. Such cues may include asking questions, using gestures, or offering an expression of expectation. Additionally, a parent may use words or short sentences repeatedly to help the child understand the environment and express his or her opinions. In conversation with their child, parents should highlight their language by making words stand out so the child understands them properly and learns to say them. Parents should speak slowly, use short sentences, and stress important words when communicating with their child. Furthermore, all of these skills must be framed appropriately to be successful. Parents should set communication goals that are useful, specific, and realistic. Children love to play and spend many hours playing. Parents should thus use that to their advantage. Playing with children provides them with the opportunity to develop their language and imagination. Again, parents should choose the game that the child wants to play. The kind of play that parents can do with their children include the following: functional play where children explore objects around them and their functions; constructive play where children build something with blocks; and pretend play where children use their imagination, i.e., pretending to sell things or talking on a toy phone. Most importantly, when a parent plays with or engages in a conversation with the child, besides following the child's lead, a parent must interact with the child face to face (Baxendale et al., 2001).

## **Conclusion**

The purpose of this paper was to discuss the hypothesis that a parent or caregiver must master the following three important child-guiding skills to help improve young (three to six years old) children's behaviors: empathy, setting boundaries, and early intervention (Garland et al., 1981). These approaches or principles are the best way to guide three- to six-year-old children's behaviors.

A sense of empathy and setting boundaries should go hand in hand with the process of early intervention. Thus, parents or caregivers should be aware of the importance of early intervention. Therapists agree that early intervention is a crucial remedial factor

in correcting existing developmental problems (Baxendale et al., 2001). It helps to enhance the child's development since learning and development occur most rapidly during the preschool years. If intervention is not conducted at the appropriate time, the child may experience difficulty learning a particular behavior later in life.

In summary, this early intervention approach enables parents to know how to draw the child's attention in a process of joint communication because joint attention helps late-talking children develop language skills rapidly. This family-centered intervention enables the child to learn more than language. In a loving and familiar setting, the child can learn about the world and can also develop social skills by interacting with his/her family, parents, siblings, and others. This approach recognizes that the parents are the people who are most concerned about their child. The parents want to dedicate as much time as possible to help their child, and since they are the two people who spend the most time with the child, the best approach is to show them how to help the therapist in the treatment of their child (Baxendale et al., 2001).



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***The Development of Psychological Well-Being Enhancement Model for the Elderly using Family and Community Participation in Nakaew Sub-District***

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**Abstract**

The objectives of the research were to develop a psychological well-being enhancement model for the elderly using family and community participation (PEMEF) and to study the results of using the PEMEF for the elderly people from Nakaew sub-district. The sample used in this research was 5 academicians in psychology and public health with the elderly experiences, 15 people in the community and in the elderly family of Nakaew Sub-district and 24 elderly people from Nakaew Sub-district were chosen by purposive sampling. The research tools were an interview form, a focus group discussion and a psychological well-being evaluation form. The statistics used in data analysis were percentage, mean and standard deviation. After the focus group discussion of 15 people in the community, in the elderly family and the interviews of 5 academicians in psychology and public health with the elderly experiences, the PEMEF was developed into the “Activity 4 Learning Bases for the Elderly onto Psychological Well-being (ALBEP)” each base consisting of 3 activities enhanced self-esteem, life satisfaction, interpersonal relationship and living conditions. After using the ALBEP with 24 elderly people, it was found that the mean score of psychological well-being of the elderly before using the ALBEP was 3.36 which was at medium level and the standard deviation was .22 and the mean score after using the ALBEP was 4.11 which was at high level and the standard deviation was .38. The mean score of psychological well-being of the elderly after using was higher than before using the ALBEP.

Keywords: psychological well-being, elderly, family and community participation

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## Background

At the present, Thailand has progressed into the elderly society with the increasing number of the elderly showing the trend of change in the population structure. Since 2012, Thailand has the elderly at 12.7% of the total population or about 8,170,909 persons and in 2014 the number jumped up to 10,014,699 persons. In the 20 years period to come, the number of the elderly will increase 2 times more or about 25% of the country population (Office of National Statistics, 2014). The United Nations specifies that any country with the number of the elderly of more than 10% of the total population is regarded as an elderly society. By this definition, Thailand is now a complete elderly society. With the rapid increasing rate of the elderly, everyone in every sector needs to prepare various sides to meet the changes in body, economy, health, and society to promote good quality of life and assist the elderly to have stability.

Northern Thailand has 1,645,954 elderly persons which is the 3<sup>rd</sup> highest number following the North Eastern and the Central regions. Lampang province has 114,405 elderly persons or 15.1% of the its total population. Basing on the academic cooperation project entitled “One University, One Province” that Lampang Rajabhat University cooperated with the local government organizations to support and promote the program on working together and local development. From field work in Kokha district, Nakaew Sub-district Municipality, engaging on 3 February 2012, the municipality sent in community leaders to participate in focus groups to find strength, weakness and community needs and wants. It had found the elderly low quality of life, elderly problems and the needs to improve the quality of life for the rapidly increasing number of the elderly in the community. When the rate of elderly increased rapidly, there was a need to promote of quality of life in various sides (Seenuan, 2009) because elderly was the age that faced many changes in body such as sicknesses or the deterioration of different systems in the body, in the social role such as retirement, loss of head of family status, loss of spouse’s, close relatives or friends etc. If the elderly could not adapt to these changes suitably, it could create many psychological health problems. So it is imperative to support the psychological well-being of the elderly (Renugar, 2008) and if a person could adapt and pass over the social crisis well in every step, that person would have strong psychological well-being and can adjust well for social crisis at old age (Erikson, 1964).

From the above information, the author has been interested to study the psychological well-being of the elderly and to develop the model of psychological well-being of the elderly with the participation of the community and families in the Nakaew Sub-district Municipality in Kokha District, Lampang Province as the family has closest relationship to the elderly and its members should involve in the promotion of the psychological well-being for the elderly. Because the elderly must face so many changes in their body, emotion, social and mind, if they cannot adapt to these changes, it could adversely affect their mind. The author has realized the importance of promoting psychological well-being for the elderly expecting that when they have well-balanced psychological well-being, they would have more self-awareness and could cope with the coming changes.

## Research Objectives

1. To develop psychological well-being enhancement model for the elderly using family and community participation (PEMEF).
2. To study the results of using a psychological well-being enhancement model for the elderly by family and community participation.

## Research Samples

1. Academicians in psychology and public health with the elderly experiences selected through purposive sampling method obtaining 5 persons from Center for Elderly Welfare and Development in Lampang province, Lampang Rajabhat University, Nakornsawan Rajabhat University and, Boromratchonnanee Nursing College in Lampang province.
2. People having been concerned with the elderly in Nakaew Sub-district Municipality, Kokha district, Lampang Province selected through purposive sampling method obtaining 15 persons including the head of administration, Nakaew Sub-district Municipality, a community development officer for Nakaew Sub-district Municipality, 2 public health academicians, 2 village heads, 2 heads of elderly club, and 7 persons from families of the elderly.
3. Experts specializing in elderly psychology and psychological well-being selected through purposive sampling method obtaining 5 persons to evaluate the elderly psychological well-being assessment test and PEMEF.
4. Early elderly aging between 60-65 years who could help themselves and have lived with family in Nakaew Sub-district Municipality selected through purposive sampling method obtaining 24 persons.

## Research Tools

Research tools for data collection are:

1. An interview form for interviewing academicians in psychology and public health concerned with the elderly experiences.
2. Elderly psychological well-being test totaling 40 items constructed basing on the analysis of related literatures and adapted from the complete TMHI-55, Development and Testing of Thai Mental Health Indicator Version 2007 inspected for contents the experts and divided the test into 2 parts:
  - Part 1: General demographical data of respondents such as gender, ages, marital status, educational levels, occupations.
  - Part 2: Psychological well-being assessment form composing 40 items including questions about self-esteem, life satisfaction, interpersonal relationship and living conditions in the format of 5 level rating scale.
3. Focus group discussion of persons concerned with the elderly in Nakaew Sub-district Municipality including 15 persons consisting of head of administration, Nakaew Sub-district Municipality, community development officer for Nakaew Sub-district Municipality, 2 public health academicians, 2 village heads, 2 heads of elderly club and 7 persons from families of the elderly to find a way to create the PEMEF.

## Data Collection

1. Collecting information from related documents such as books, textbooks, articles, ideas, theories, and researches to review and analyze the related research literatures.
2. Constructing elderly psychological well-being test coming up with 40 items from related documents and adapted from TMHI-55, Development and Testing of Thai Mental Health Indicator Version 2007 inspected for contents by the experts.
3. Interviewing 5 academicians in psychology and public health with the elderly experiences from the Office of Elderly Welfare and Development in Lampang Province, Lampang Rajabhat University, Nakornsawan Rajabhat University, and Boromratchonnanee Nursing College in Lampang Province to find a way to create the PEMEF.
4. Focus Group Discussion participated by 15 persons concerned with the elderly in Nakaew Sub-district Municipality including the head of administration, Nakaew Sub-district Municipality, community development officer for Nakaew Sub-district Municipality, 2 public health academicians, 2 village heads, 2 heads of elderly clubs and 7 persons from families of the elderly to find a way to create the PEMEF.
5. Analyzing data from interviewing the academicians in psychology and public health with the elderly experiences and focus group discussion and using it for constructing PEMEF. Evaluating it for contents and the congruency by calculating the IOC (Index of Item-Objective Congruence).
6. Using the elderly psychological well-being test composed of 40 items to assess the sample group of early elderly ages 60-65 years who were living with family in Nakaew Sub-district Municipality selected through purposive sampling method obtaining 24 persons before using the PEMEF.
7. Trying out the PEMEF with the sample group selected through purposive sampling method.
8. Using the elderly psychological well-being test composing 40 items to assess the sample group after using PEMEF.
9. Concluding the results of experimental the use of PEMEF.

## Data Analysis

1. Collecting data from interviewing the academicians in psychology and public health with the elderly experiences and focus group discussion taking part by persons in the community and elderly family members, concluded to find a way to develop the PEMEF.
2. Elderly psychological well-being test had 40 items consisting of questions about self-esteem, life satisfaction, interpersonal relationship and living conditions that constructed from related documents and adapted from TMHI-55, Development and Testing of Thai Mental Health Indicator Version 2007 the format of a 5 level rating scale analyzed data in terms of mean and standard deviation with the following interpretations:
  - Mean scores between 4.50 – 5.00 means having the psychological well-being at the highest level
  - Mean scores between 3.50 – 4.49 means having the psychological well-being at the high level
  - Mean scores between 2.50 – 3.49 means having the psychological well-being at the medium level
  - Mean scores between 1.50 – 2.49 means having the psychological well-being



at the low level

Mean scores between 1.00 – 1.49 means having the psychological well-being at the lowest level

3. The format of PEMEF assessed by experts and verified for contents validity and suitability by calculating for IOC (Index of Item-Objective Congruence).
4. General data of the sample group were analyzed in term of percentage.
5. Experimenting the use of PEMEF was analyzed in terms of mean and standard deviation.

## Research Findings

The research entitled “The development of psychological well-being enhancement model for elderly using family and community participation in Nakaew sub-district, Kokha district, Lampang province, Thailand” was a participatory action research with the objectives to study the psychological well-being of the elderly and develop PEMEF and came up with the research findings as follows:

### 1. Results of the development psychological well-being enhancement model for the elderly using family and community participation (PEMEF).

Results of the development of PEMEF in Nakaew Sub-district Municipality by studying related documents, focus group discussion with concerned persons with the elderly totaled 15 persons consisted of head of administration, Nakaew Sub-district Municipality, community development officer for Nakaew Sub-district Municipality, 2 public health academicians, 2 village heads, 2 heads of elderly club and 7 persons from families of the elderly and interview the experts to create the PEMEF had guided that the PEMEF should be in the form of activity promoting self-esteem, life satisfaction, interpersonal relationship, and environment and living conditions which all were related to the elderly psychological well-being. Consequently, the author developed the “Activity 4 Learning Bases for the Elderly onto Psychological Well-being (ALBEP)” to promote self-esteem, life satisfaction, interpersonal relationship and environment and living conditions with 4 bases each of which had 3 activities totaling 12 activities each of which contained instructions, name of activities, purposes, duration of activity, important points, methods, equipments, medias and conclusion. Afterward, the instrument was verified by the experts for contents validity and the suitability by calculating for the IOC that were more than 0.5 and the ALBEP could be used. Details of “Activity 4 Learning Bases for the Elderly onto Psychological Well-being (ALBEP)” such as name of activities, purposes and important matters are shown in the following table:

## The Activity 4 Learning Bases for the Elderly onto Psychological Well-Being (ALBEP)

### Base 1 “Activities for the Elderly onto Self-Esteem”

No.	Name of Activity	Purposes	Duration of activity	Important Points
1.	Contemplative Education for Self-esteem	1. To know and understand oneself 2. To create self-esteem	1 hour	Contemplative education is a learning process to reach one's inside. Learning to change, to reach the truth, the goodness then to reach self-esteem and live happily.
2.	I am a flower	1. To know and understand oneself. 2. To create self-esteem	1 hour	After the person has examined, evaluated and analyzed himself or herself, it would lead to increasingly knowing and understanding oneself including self-esteem and pride in oneself.
3.	Mountain of Truth	1. To create self-awareness. 2. To create the realization of self development	1 hour	After the person has surveyed and studied himself or herself, it would create self-awareness leading onto self-esteem and after developed and improved and changed oneself, it would lead to self-esteem and living happily.

**Base 2 “Activities for the Elderly onto Life Satisfaction”**

<b>No.</b>	<b>Name of Activity</b>	<b>Purposes</b>	<b>Duration of activity</b>	<b>Important Points</b>
4.	Hands of Success	1. To be aware of own abilities 2. To create Life Satisfaction	1 hour	Every individual has been happy, successful, and disappointed in life. Everybody has abilities in himself or herself and these abilities would lead to success and self-pride including life satisfaction.
5.	Balloon of Goodness	1. To be aware of own goodness 2. To create self-esteem	1 hour	Every individual has goodness and beauty in life. When that person has been aware of his or her own goodness, or surrounding persons talk about his or her goodness, it creates the feelings of self-esteem, self-pride and satisfaction.
6.	Satisfied Life	1. To be aware of good things in life 2. To create happiness and life satisfaction	1 hour	Every individual must have satisfaction and dissatisfaction in life; has good things and has no good things in life. If that person chooses to look at the good things and overlook the bad things in life, it will create happiness and satisfaction in life.

**Base 3 “Activities for the Elderly onto having a good interpersonal relationship”**

<b>No.</b>	<b>Name of Activity</b>	<b>Purposes</b>	<b>Duration of activity</b>	<b>Important Points</b>
7.	Home of Love	1. To be aware of the importance of having a good relationship in the society 2. To create a good relationship in the family	1 hour	When an individual has a good relationship with others in the society especially the those in the family, it will create love, respect, and cooperation including living happily together in the society because human cannot live alone in the society without relying on one another.
8.	My close friend	1. To be aware of the importance of having a good relationship in the society 2. To create a good relationship with other persons	1 hour	When an individual has a good relationship with others in the society especially when that person has close friends or friends with whom he or she can talk about anything, it will create trust, understanding and a good relationship. It will make the person relax and not worried when talking including having happiness in living.
9.	Participation and help each other	1. To create good relationship among one another 2. To create a teamwork	1 hour	When an individual has a good relationship with others in the society especially when working as a team, having a good relationship among one another would create cooperation in work assuring smoothly and successfully working.

**Base 4 “Activities for the Elderly onto a Good living”**

<b>No.</b>	<b>Name of Activity</b>	<b>Purposes</b>	<b>Duration of activity</b>	<b>Important Points</b>
10.	The community where I live in	1. To be aware of the importance of the environment he or she lives in. 2. To create a teamwork	1 hour	When an individual lives in a good environment, society, and community, it will create trust and a good relationship in the community that will lead to satisfaction in life including having happiness in living.
11.	Dream House	1. To create a good relationship with persons in the family	1 hour	When an individual lives in a good environment, society, and community, it will create trust and a good relationship in the community that will lead to satisfaction in life including having happiness in living.
12.	Good Health, Happy Life	1. To create awareness of the importance of caring for health 2. To create self-awareness	1 hour	When an individual realizes the importance of living especially concerning food; when a person realizes the benefits of food, eat useful food, it will create a healthy and strong body. When the health is good and the body is strong, it will affect the mind and leads to happiness in living.

The elderly who participated in “Activity 4 Learning Bases for the Elderly onto Psychological Well-being (ALBEP)” they created self-esteem, life satisfaction, interpersonal relationship and environment and living conditions, self-knowing and self-understanding, self-esteem, having good relationships with surrounding people, the exchange of learning among themselves, the realization of having a good environment and a good health. They can develop their psychological well-being and could adapt to the changes while preparing to enter the middle and late periods of elderly life.

**2. Results of using PEMEF that the author developed into a format of Activity of 4 learning bases for the elderly onto a good psychological well-being (ALBEP) as follows:**

2.1 General data about 24 elderly people who participated in the ALBEP are shown in the following table:

<b>General data of 24 elderly people</b>	<b>N</b>	<b>Percentage</b>
<b>Gender</b>		
Male	4	16.67
Female	20	83.33
<b>Age</b>		
60 – 62 years	17	70.83
63 – 65 years	7	29.17
<b>Status</b>		
Single	7	29.17
Married	9	37.50
Widow	5	20.83
Divorce	3	12.50
<b>Education</b>		
Unschooling	1	4.16
Primary School	15	62.50
Secondary School	4	19.67
Bachelor Degree	4	19.67
<b>Occupation</b>		
Farmers	9	37.50
Workers	8	33.34
Sellers	6	29.16

2.2 Results of the elderly psychological well-being assessment before and after using the ALBEP are shown with the following details.

1) Mean, standard deviation and level of the elderly psychological well-being assessment before and after using the ALBEP categorized into self-esteem, life satisfaction, interpersonal relationship and environment and living conditions are shown in the following table:

Elderly psychological well-being assessment	Before using the ALBEP			After using the ALBEP		
	$\bar{X}$	S.D.	Level of psychological well-being	$\bar{X}$	S.D.	Level of psychological well-being
self-esteem	3.48	.28	Medium	4.12	.42	High
life satisfaction	3.32	.21	Medium	4.16	.28	High
interpersonal relationship environment and living conditions	3.43	.14	Medium	4.02	.41	High
<b>Total average</b>	<b>3.36</b>	<b>.22</b>	<b>Medium</b>	<b>4.11</b>	<b>.38</b>	<b>High</b>

2) Conclusion of mean, standard deviation and level of the elderly psychological well-being assessment before and after using the ALBEP are shown in the following table:

Period	N	$\bar{X}$	S.D.	Level of psychological well-being
Before using ALBEP	24	3.36	.22	Medium
After using ALBEP	24	4.11	.38	High

The mean score of psychological well-being before using the ALBEP was 3.36 and the standard deviation was .22 or at the medium level. The mean score of psychological well-being after using the ALBEP was 4.11 and the standard deviation was .38 or at the high level. The mean score of psychological well-being of the elderly after using was higher than before using the ALBEP.

## Discussion

From the development of PEMEF by studying related literatures, focus group discussion and interview the academicians in psychology and public health with the elderly experiences to find a way to create the PEMEF could be concluded that the PEMEF should be in the form of activity and that the author had developed the "Activity 4 Learning Bases for the Elderly onto Psychological Well-being (ALBEP)" and each base promoted self-esteem, life satisfaction, interpersonal relationship and environment and living conditions relating to the elderly psychological well-being. The activities were clearly carried out. Waro (2010) said that the model must have clear method of operation and criteria that could be used as a guideline to successfully operate and achieve the purposes including the evaluation of the model by experts and improvement and correction were made basing on the suggestions. The model testing and evaluating by the experts through deep analysis and critique concerning the suitability of the model and finally the model was used at Nakaew Sub-district Municipality, Kokha district, Lampang province with 24 elderly participants aging 60-65 years of age.

After using the ALBEP, the results were much higher than and could be explained as follows: the model: “Activity 4 Learning Bases for the Elderly onto having a good Psychological Well-being (ALBEP)” was the development of an activity model and each activity made the elderly know and understand themselves including the exchanges of learning among themselves, with persons of similar ages that created the realization of self-esteem, life satisfaction, relationship with others and a good environment and living. They all was led to a good psychological well-being at the end. Erikson’s theory of personality development (1964) was used as the conceptual framework for the activity development. If a person could adapt and pass over the social crisis well in every step, that person would have strong psychological well-being and can adjust well for social crisis at old age. There was also some contemplative education included to learn with reflective mind to reach the truth, the goodness, and public mind, with full conscience and realization of the value of things through a relationship process, contemplative conversation, deep listening, reflection, note-writing and conversation with inner voice to enable the elderly to adapt to the environment and changes suitably including living happily. As Levison (1977) had pointed out, at the late adult transition time, between the ages 60-65 years old, because we do not grow old all in a sudden, but there are changes in different dimensions including the physical ones, that some elderly might not feel well and affect their form of living and create worries among them. At this age, adaptation is then very important. Seeruen (2010) remarked about the creation of psychological well-being in the elderly as they had to face so many changes. If they could not adapt well to the changes, it would create problems affecting psychological well-being. So it can be seen that the “Activity 4 Learning Bases for the Elderly onto Good Psychological Well-being (ALBEP)” with the participation of families and community could create and promote psychological well-being for the elderly well because the people in the family and community lived with or close to the elderly and could see the development of the elderly and help care of the elderly both on body and mind. This agreed with findings of the research conducted by Wanassanan (2010) who studied the participation of the family in the promotion of quality of life for the elderly that made the family know and understand, have the attitude and be aware of the role of promoting good quality of life for the elderly covering 4 aspects: body, mind, social relationship and environment, and the family had a part in analyzing the problem of living together with the elderly.

The ALBEP could create a good psychological well-being for the elderly because when the elderly participated in the activities, they created self-knowing and self-understanding, self-esteem, having good relationships with surrounding people, the exchange of learning among themselves, the realization of having a good environment and a good health and could adapt to the changes while preparing to enter the middle and late periods of elderly life including having a good psychological well-being and living happily.

### **Suggestions**

Suggestions for people who interested in ALBEP to use with the elderly and for the further research as follows:

1. It was found that when the elderly participated in activities, they were enthusiastic, had good relationships with surrounding people, and engaged in the exchange of



learning among themselves. Consequently, the activities should be applied to people who are being prepared to be elderly.

2. During activities, there should be an observer to observe behavior of the elderly to monitor the elderly when participating in the activities. The observer should note important thing, important situation, ideas or opinion of the elderly while engaging in the activities.

3. There should be some studies for developing the model to enhance other life skills of elderly such as coping with stresses and emotions, and their social quotient (SQ).

4. The further research apply others theories such as behavioral theory, human development theory, and personality theory to develop the models or activities and develop suitable models or activities that best fit the elderly's context.



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## ***Coping Stress of Pilot of Commercial Aircraft after the Crash***

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### **Abstract**

The plane crash is a traumatic experience in the life of someone, especially a pilot because it has the burden of responsibility on the safety of the passengers. This study aims to determine the coping stress post-crash of a commercial airplane pilot. Coping stress is an individual effort in managing the full load condition, exert efforts to solve the problem, and try to control or reduce the pressure. Coping stress is necessary to a pilot who has ever been in a plane accident to address the impact of accidents or incidents such as stress, anxiety, and trauma in order to have a good working performance. This research is aimed at finding the way the pilots cope with their stress while remain working as pilots after experiencing flight accidents. In-depth interviews conducted on four men who worked as a commercial pilot (20-40 years old when the accident or incident happened) who had experienced a plane accident or incident and are still working as a pilot. The method used in this study is a qualitative descriptive. These results indicate that the three subjects first performed emotional focused coping and one subject did post-crash problem focused coping. In general, all four subjects combined emotional focused coping and problem focused coping to overcome the effects of accidents or incidents, such as stress, anxiety, and trauma.

Keywords: *coping stress, pilot, crash*

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## Introduction

The safest transportation in the world is aircraft because it has the most sophisticated security systems and a standard procedure applicable to the aircraft maintenance system (Hakim, 2010). However, it still has a possibility of a plane crash. Commercial aircraft is air transport services to carry or move people or goods from one place to another. An airline needs to have the air operator certificate and operations specifications such as documents that tell about the air or weather conditions, authorization, and limitations of airline operations (Wells, 2001).

In the last five years, National Transportation Safety Committee (2011) claimed that 59 accidents (accident) and 39 serious aircraft incident have occurred in Indonesia. There 219 victims were dead or missing and 67 injured. Hubert (2008) mentions that the statistical results showed as much as 67.57 percent of the main causes of air accidents is human error factor and as much as 20.72 percent of accidents occur due to technical errors. While only 5.95 percent of aircraft accidents worldwide occur due to bad weather.

Human error is a condition in which someone made a mistake when doing work or carry out tasks related systematically with the features of the machine or electronic equipment used by humans (Dekker, 2006; Wiegmann and Shappell, 2003). According to Wells (2001), human error occurs not only pilot in command at the time, but can also occur at the concierge air traffic controllers, technicians and aircraft mechanics, cabin crew and caterers. Reason (1997) proposed what is referred to as the "Swiss Cheese Model" of system failure. Every step in a process has the potential for failure. The ideal system is analogous to a stack of slices of Swiss cheese. Consider the holes to be opportunities for a process to fail, and each of the slices as "defensive layers" in the process. An error may allow a problem to pass through a hole in one layer, but in the next layer the holes are in different places, and the problem should be caught. Each slice of cheese is an opportunity to stop an error. Pilot is the last successive layers of defense, barriers and safeguards of an airplane. Pilot can catch/stop errors that may occur during the flight, but if unfortunately pilot can't stop errors and accident happened will cause a certain impact on him.

When an aircraft accident occurs, it can cause a certain impact on someone, especially on self-pilot who flew the plane because of the burden of responsibility for the safety of lives of the passengers and can lead to stress, anxiety or trauma in him later on when flying the aircraft after experiencing tragedy accidents (Martinussen & Hunter, 2010). According to Trollip and Jensen (1991), when he started flying again after being convicted of a no-fly post-crash, a pilot may lose confidence when flying the aircraft at the memory of the events of his accident. The memory can bring a sense of doubt the ability of self as a pilot, attention, and concentration is reduced that effect on its performance. This can increase the stress level of the pilot while working and if not treated properly, the stress level increases until it turns into anxiety decrease the speed of response in controlling the aircraft.

Coping required to overcome the trauma, anxiety, and stress that happened in pilot after the crash. Coping is a constant cognitive change action and behavior is an attempt to cope with the demands of internal or external rated overload or exceed the resources owned by the individual (Lazarus & Folkman, 1984). According to Taylor

(2009), coping aims to reduce the environmental conditions that can cause harm, to adapt to negative events or the reality of what happened, to maintain a positive self-image, to maintain emotional balance and to continue satisfying relationships with others. According to Trollip and Jensen (1991), during the pilot flying the aircraft has a great responsibility for the safety of passengers and the required high vigilance in controlling the aircraft for smooth flight. Therefore, the pilot who had an accident needs to do coping strategy was good and right in order to increase the confidence of the flying ability so as to have a better work performance than before.

According to Lazarus and Folkman (1984), there are two strategies for coping, the problem focused coping and emotional focused coping. Problem-focused coping is an attempt to cope with stress by adjusting or changing the problems encountered and the surrounding environment that causes a person distress. While emotional focused coping is an attempt to overcome the stress that a person by regulating emotional responses in an attempt to adapt to a condition or situation is considered stressful. Taylor (2009) states that people tend to use both simultaneously coping strategies because both are equally useful.

Stress reduction strategy that is focused on the issue (problem-focused coping) is divided into three forms, namely: (a) confrontative coping, describe efforts to change the situation or problem aggressively, and describe the level of anger; (b) planful problem solving, described efforts to change the situation carefully in addition to using an analytical approach to problem solving; and (c) seeking social support, described efforts to seek external support in the form of information, support real and emotional support (Lazarus & Folkman, 1984). Billings and Moos (in Dewe, O'Driscoll, & Cooper, 2010) added two kinds of stress alleviation centered on the issue (problem-focused coping), the active-cognitive-behavioral coping and active coping. Active-cognitive coping is a way which is owned by an individual to cope with the stress that is experienced by way of a positive perception of a stressful situation and think about alternative solutions. While individuals who cope with stress by active-behavioral coping, consult with others about how the right way to cope with a stressful situation, try to find out more about a stressful situation, and take positive steps to overcome them.

Lazarus and Folkman (1984) also divide the stress coping strategies centered on emotions (emotional focused coping) into five, namely: (a) distancing, describes the reaction of escape or attempt to not be involved in the matter; (b) self control, describe efforts to regulate their feelings and actions taken to remain calm; (c) accepting responsibility, describe their awareness of their role in the problems faced and tried to accept everything correctly; (d) escape avoidance, described efforts to avoid or escape from problems; (e) positive reappraisal, described efforts to create a more positive meaning is intended for personal development also involves matters of a religious nature. Billings and Moos (in Dewe, et al., 2010) added avoidance as an individual effort in tackling stress. Individuals who apply avoidance in the response to stress can be defined as individuals who ignore the situation, deflecting attention to other issues, or engage in activities that please him and disrupt the process of resolving problems.

## Method

**Subjects.** The subjects included four people and domiciled in Jakarta. Subjects were young adult males aged 20-40 years (Papalia, et al., 2009) when the plane crash occurred. Subjects worked as a commercial airline pilot and had an aircraft accident. Plane crashes experienced by subjects that occurred within a period of approximately five years and the subject still working as a pilot. The number of casualties and material losses suffered in a plane crash the subject is not specified.

**Instruments.** This research was a qualitative descriptive with in-depth interview techniques. Instruments used in this research is interview, informed consent, stationery, paper, and recorder.

**Procedure.** Researchers were looking for suitable subjects predetermined criteria and had recommendations by Operations Manager from an airline in Indonesia. Researchers prepared interview guidelines and contacting potential subjects who fit the criteria of research to conduct interviews. At the agreed time, the researchers met the subjects and build rapport with the subjects so that the subjects felt comfortable and could provide real data. The researchers explained to each subject's identity and the interviews will be guaranteed confidentiality. After agreeing to be interviewed, the subjects were asked to fill out an informed consent. At the interview, the researchers recorded the time and place of the interview, as well as things that were considered important for the completeness of the data. After getting the data from interviews, researchers performed data processing by creating a verbatim transcript as well as analysis and reflection. All interviews were conducted within a span of three months, starting from December 13, 2011 until March 20, 2012. Two of the interview conducted at home and four interview subjects made public upon request subject. The interviews were conducted twice on two subjects and one on two other subjects to get the full data. The entire interview data into confidential data. Name of the subjects and the companies disguised in the discussion of research results.

## Results

Subject	1 (SM)	2 (HA)	3 (UK)	4 (PS)
Age, marital status	33 years old, married (3 children)	36 years old, married (2 children)	37 years old, single	39 years old, married (2 children)
Background of flying school and working	scholarship from airline "X", Flying School in Australia	scholarship from airline "X", Flying School in Australia	scholarship from airline "X", Flying School in Australia	scholarship from airline "X", Flying School in Australia
Airline (NOW) and experienced of flying	Airlines "Y" in Jakarta 19 years old (above 10.000 hours of flying)	Airlines "Y" in Jakarta 18 years old (above 10.000 hours of flying)	Airlines "Y" in Jakarta 19 years old (above 10.000 hours of flying)	Airlines "Y" in Jakarta 20 years old (above 10.000 hours of flying)
Accident happened	2007, Kuching – Malaysia, as pilot monitoring (first officer)	2011, Pekanbaru – Indonesia, as pilot flying (instructor)	2009, Padang – Indonesia, as pilot flying (instructor)	2006, Surabaya – Indonesia, as pilot monitoring (captain)

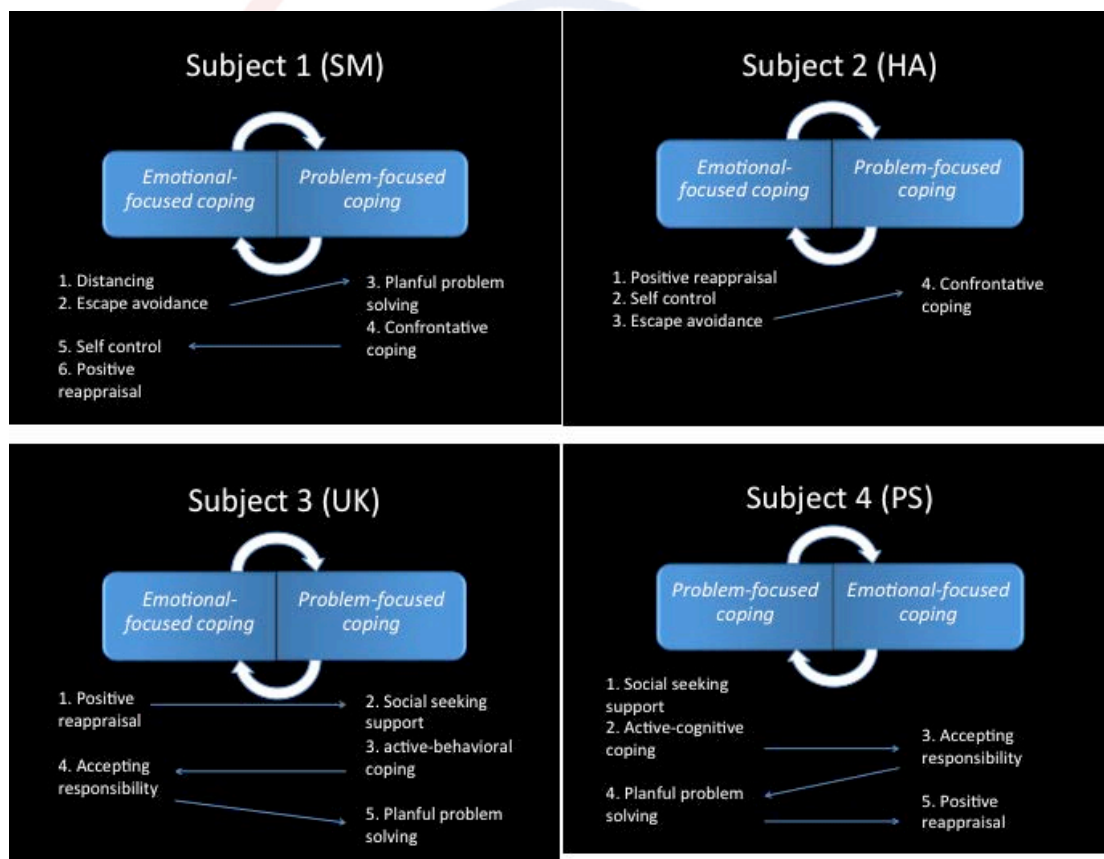
**Table 1. Subjects Background**

Subject	Cause of accident	Effect
1 (SM)	Human error (visual illusion), bad weather	Grounded and lost of license for 6 months. Financial Stress, bad memory of the accident, trauma
2 (HA)	Human error (fatigue), bad weather, airport (short runway)	Grounded for 4 months. anxious, self-instropection, doubt to make decision during flying
3 (UK)	Human error (fatigue), bad weather, airport (short & slippery runway)	Grounded for 2 weeks. Panic when accident happened, asking the causes of accident, anxious
4 (PS)	Human error (fatigue), technical problem, bad weather	Grounded for 3 months. Back work as a co-pilot for 6 months. Stress about the investigation, sad, anxious, trauma

**Table 2. Cause and effect of accident**

Subject / Coping strategy	1 (SM)	2 (HA)	3 (UK)	4 (PS)
<b>Problem-focused Coping :</b>				
Confrontative Coping	4	4	-	-
Planful Problem Solving	3	-	5	4
Social Seeking Support	-	-	2	1
Active-cognitive Coping	-	-	-	2
Active-behavioral Coping	-	-	3	-
<b>Emotional-Focused Coping :</b>				
Distancing	1	-	-	-
Self Control	5	2	-	-
Escape Avoidance	2	3	-	-
Accepting responsibility	-	-	4	3
Positive reappraisal	6	1	5	-
Avoidance	-	-	-	-

Table 3. Coping strategies



Pictures show how each pilot did their coping strategies.



## Explanation

**Accident Experiences.** Prasetyo, et al. (2005) mentions the concept of 5M related to aircraft accidents, that man, machine, mission, medium, and management. Man as the human element, in this case associated with the pilot as the main component. Machine is usually associated with the condition of the aircraft. Mission linked to the goal-setting flights by various risks that may be encountered. Medium is the bad weather conditions in the aviation and infrastructure constraints. Management is an error of selection, education, training or exercises, equipment, flight safety, and operational control.

Subjects SM and PS had the same factors that cause accidents, namely the factor of man and medium. In addition, accidents suffered by PS influenced by machine. HA and the UK have in common their accident was caused by the man, medium, and management.

Medium factors that cause accidents on the four subjects were their unfavorable weather conditions when the accident occurred. Common element management in the occurrence of accidents suffered by the HA and the UK are in operational control by the airport to manage or perform maintenance on inadequate foundations, such as the rubber deposits were not removed at the runway so as to make the runway and aircraft wheel becomes slippery when grounding in a state wet. Factors machine in accidents suffered by subjects of PS in the form of damage to aircraft engines so it is difficult to control when the plane landed.

Each subject is influenced by elements of a different man. Factors man in SM is located at the time of the accident captain made a mistake in decision making. Accidents experienced by the subjects HA, elements of his man lies in the ATC officer incorrectly informing the state of the wind. Subjects UK has a man factor in itself being in a state of fatigue and stress levels rise time of the accident. Factors man in a plane crash experienced by PS found on aircraft technicians who do not provide accurate information about the true condition of the aircraft engine, he just said that its indicator lights were broken and not the engine.

**Human errors.** Human error contributing to accidents suffered by the four subjects. However, where the mistakes or human error that occurs in each accident was different. Human error made by the captain who flew the plane when the SM plane crash in the form of decision making errors. Misinformation given by the ATC officer pilot in command is human error in accidents suffered HA. Location of human error in accidents suffered by the UK is itself in the form of stress and fatigue levels are rising at the time. Human error contained in aircraft technicians who do not write the history of damage to aircraft in flight history books completely and correctly, causing accidents suffered PS.

**Effect of the accidents.** SM traumatized by the state of fog, especially during dark conditions after his accident. Throughout grounded moment, SM revealed that reading books flight and find out the cause of the accident only added stress. After the accident, SM has got terminated from the company where he worked as a freelancer employee. This situation made SM stress because he did not have a job for a few

months and had no income. SM then got a job and could start working again at the X airline after grounded period ends.

HA had felt anxious about his ability as a pilot on the day after the accident occurred. HA felt anxious because less than 20 hours a similar accident occurred by colleagues at the same airport. The desire to forget about the accident becomes blocked because HA remembered knowing that his friend also had an accident at the same airport. When the subject HA got home, he thought what was wrong so that God gave him the trials with the accident. Memories of the accident that appears was the primary stressor on self-HA and he was thinking for days that made him uncomfortable with it. The process of self-introspection conducted HA aims to find a way to forget the memory of his accident.

As a result of accidents experienced HA, he got the punishment ban of NTSC for about 4 months. Although it may not fly, HA still get a basic salary of the company and the time to start working again HA remains the captain. But when it made its first flight since 4 months does not fly, HA doubt the power of flight. Doubts arose when landing at the airport in Pekanbaru and make HA fly depressed with the situation at that time. Feelings of anxiety and doubt disappear after he succeeded in landing and HA become confident again with his flying ability.

Post-accident aircraft experienced UK, he wondered about the cause of the accident. UK did not think he was able to experience a plane crash when he was an instructor at the airline X and often experience severe weather conditions of the day, but always able to control the aircraft properly. As a result of accidents experienced UK, he got a penalty ban for 2 weeks, and then he took a leave of absence for two weeks so that the total he did not work for 1 month. This has no effect on the earnings and career in the UK airline Y. He remains a captain and instructor until now. But after her period ends grounded, UK has an impact in the form of anxiety every time you make a flight to Padang airport especially during rainy conditions. UK always remembered the events of the accident.

PS has anxiety and post-accident trauma every fly to Surabaya. Trauma that happened a long time, about two years until the PS gain new aircraft type rating anxiety and trauma is gradually lost. In addition to trauma and anxiety, PS also feel the stress facing trial in the office and in NTSC. PS stress due to fear that if he was fired by the company and found guilty by the NTSC so he fined or even imprisoned. But after the investigation is completed, the airline company where PS work took the decision to lower the PS positions of captain became a co-pilot on the recommendation of the NTSC. This made PS feel very sad.

### ***Coping stress.***

***Problem Focused Coping.*** At the time SM started to fly again, he prepared himself by reading books related to the cause of the accident. SM did planful problem solving because he wanted to really be able to understand Approach Landing Accident Reaction so he is more vigilant in conducting a flight. With this, SM felt can help him overcome the trauma. When flew SM did confrontative coping to handle his trauma when through the dark fog conditions. Confrontative coping done in order to change

the state or condition himself, who was anxious to be more calm and ready for landing.

HA did confrontative coping to overcome doubts about the ability of flight when he began to fly again. HA faced the problem by changing the state of discomfort zone into a comfort zone and judging a good opinion of the instructor. Uncomfortable circumstances HA zone was a condition when performing flights to Pekanbaru after not flying for about 4 months. HA felt hesitant and questioning himself, did he capable or not to conduct such flights. Then he thought that the problem had to face so that he could go ahead and release the load or the fear that he felt.

UK contacted the safety director at the company where he worked on the night after the accident to find out information about his situation. UK did seeking social support and active-behavioral coping to overcome the traumatic experience he had just endured. Active-behavioral coping performed by the subjects as a positive step to cope with stress after the accident to find out the cause and why it happened to him. While seeking social support were made by UK in an attempt to gain emotional support as well as information right from the source he could trust. In this case UK contacted the safety director who knows very well about the new experienced so that he could cope his stress on the spot. UK also did planful problem solving by always anticipating the form of raises memories of accidents in each flight to increase alertness so that he could cope with the anxiety felt. According to the UK, this is a positive thing because he had a higher awareness than before so that he could act more cautiously again while fly an aircraft.

PS handled his trauma through accepting responsibility in the form of increasing self-awareness, increase great responsibility towards the success of a passenger ratings and responsibilities as an instructor on his student. Then PS did planful problem solving by analyzing differences in the workings of the aircraft type MD and Boeing as he gets the opportunity to fly Boeing type aircraft. PS expressed his confidence came back when he flew with Boeing and less traumatized to disappear altogether.

***Emotional Focused Coping.*** SM did coping with distancing way until he started training to fly on the airline X. SM did not want to open a book about aviation and chose to withdraw from social interaction with coworkers fellow pilot because he thought it made him more stress. SM did escape avoidance to avoid the question of his wife, family and others for asking questions of him because it will remind him at accident scenes and made himself burdened with the role at home that support his family. SM avoided by frequently travel outside the home, such as playing golf or having fun entertaining yourself. Then when he started flying back, SM performed self control to make himself calm by means of positive self-talk when he began to feel tense and anxious when the plane were going to landing. Having to cope with the trauma, SM did positive reappraisal to take lessons from the events that happened. SM grateful to the incident because of the traumatic experience that he experienced could be a lesson for other pilots and be better than ever.

HA did positive reappraisal post-crash by not burdening himself and guided by the belief that every event must have a meaning and we could learn from it. HA was also guided by the Quran so that it took lessons from the events that happened. HA did self control in an attempt to convince himself that what he was doing is right because

there were opinions from other people or experts what they learned from the books they read. HA did not want to remember the events of the accident and focus on other things, he did escape avoidance. With escape avoidance, perceived stressors HA did not develop into stress.

After UK managed the plane until it parked, he did positive reappraisal to feel grateful because the plane could be stopped and the condition was normal. UK also had a pleasure to rest at home throughout grounded duration. He could do his hobbies, such as fishing on an ocean with his friends and totally rest before back to fly again. UK also took lessons from events experienced as learning to colleagues or other pilots.

After the trauma had gone, PS did positive reappraisal to take lessons from the incident that happened as a lesson for the sentences and demoted when he became co-pilot so that PS could share his experienced on other pilots when he teach them now in a CRM (Crew Resource Management) class.

### **Conclusion**

- Two main causes of accidents were human error by the pilots and bad weather.
- Pilots coped their stress by combining two types of coping strategy, parallel or switching.
- Positive reappraisal is the only one of coping strategy that showed in all participants. They can still be grateful even though an accident happened.
- Subject who thinks an accident happened because of external factors can successfully perform quick coping.

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***Stigma in Schizophrenics in Griya PMI Peduli, Surakarta, Central Java, Indonesia***

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**Abstract**

The purposes of this research are (1) Determining public's view of people with schizophrenia in "Griya PMI Peduli Surakarta" (2) Determining the cause of stigma in people with schizophrenia in "Griya PMI Peduli Surakarta". This research is a qualitative study by using phenomenological approach. The sampling technique in this research is purposive sampling which seeks for informants as required. Data collecting technique was done by observation, interview, and documentation. The Conclusions of this research are; Basically, there are plenty of perspective regarding social phenomenon which occurs in the society. There are resemblance and differences on viewpoints and understanding of illness. Illness is divided into two; physical and mental illness, which later form a perspective of normality. The perspective of normality that discusses a series of values and norms, in which become social rules of behavior and act as a reference for shaping the front stage and back stage of someone with schizophrenia. These viewpoints are the ones that ultimately form a stigma in the society. The process of stigma comes for people with schizophrenia in "Griya PMI Peduli Surakarta" explained by Erving Goffman in the theory of dramaturgy of stigma, caused by the presence of gap between virtual reality –the front stage– which expected by the society with factual reality –the back stage– shown by people with schizophrenia to the society, the disease is judged as the front stage, which caused a gap of reality and later in generally considered as an unnatural thing in the society itself.

Keywords: stigma, schizophrenia, dramaturgy.

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## Introduction

Nowadays, our society becomes more demanding than ever. The shifting of social standards that grows faster requires us to adapt easily with these circumstances. Economic demands, unemployment, sexual violence, even romance issues, often becomes the factors that triggers mental disorders. The complexity of problems and the high life demands of our society force everyone to struggle in order to maintain their existence in the society itself. Furthermore, the *das sein* and *das solen* that comes out far from our expectations forces us to face the reality and keep going forward. Turns out, not everyone can resolve the situation properly. Many are tend to be pessimistic and cannot think about what positive things that might comes after. Such act will often leads to stress and depression, which later will bring to the dropping state of their health; mental and emotional.

A person's health is determined by a healthy state of physical, mental and social, and not merely by the absence of disease or infirmity (WHO, 2001). According to this definition, a person can be considered healthy if all aspects within himself isn't disturbed, whether it's the social aspects (social life), and mental aspects which associated with psychological aspects, and also physical aspects with no dysfunctional of organ systems in his body. If one of these three aspects doesn't meet each other, a person can't be considered healthy. If his physical condition is considered healthy, a person's mental and his social would also be considered healthy. On the other hand, if a person's mental is disturbed, then it would be considered that his physical and social conditions are not healthy, or in other words considered as insane. Hence, health problems should always be highlighted completely; so that mental health can be an essential part of the health itself that can't be separated from each other (Stuart & Laraia, 2005).

According to Stuart & Laraia (2005), a person shall determined sane if they have the criteria as follows; positive behavior, self-development & self-actualization, autonomy, integrity, mind perception that corresponds with reality, and the ability to adapt to certain environments in order to carry out their social roles. Maslow (1970, in Shives, 2005) states that a sane person is someone who can do self-actualization which indicated by; having positive self-concept, able to maintain good relationship with others and their environment, can make decisions based on reality, having the ability of self expression, optimistic, appreciates and enjoyed the life they had, act and think independently by the social standards of values and behaviors, as well as being creative by using various approaches in order to solve their mental health issues. From these criteria stated above, we can simply conclude that people with mental disorders does not meet these criteria due to their illness.

Nowadays, the decrease of mental health occurs in almost all countries around the world, made WHO (World Health Organization) takes this matter seriously by making it a form of Global Issue that threatens our world. American Psychiatric Association (APA, 2009), stated that 1% of world population suffers from schizophrenia. The same research by the World Health Organization (WHO) also explained that the prevalence of schizophrenia in societies ranging from one to three per mile in one population. In the United States, the population of schizophrenic is more than two million people. WHO estimates that 450 million people worldwide suffered from mental disorder. Approximately 10% of adult experiences mental



disorder nowadays, and 25% of the population is expected to experience mental disorder at a certain age during his lifetime. This certain age usually occurs between the young adults, between the ages of 18-21 years (WHO, 2009).

Based on the data from Riset Kesehatan Dasar (2007), it shows the prevalence of mental disorders nationwide reached 5.6% of the total population. In other words, in every 1000 inhabitants in Indonesia, there are four to five people suffering from mental disorders. These data clearly shows that the percentage of people who suffer from mental disorders always increased each year. The highest prevalence of mental disorders in Indonesia are found in the province of DKI Jakarta (24.3%), followed by Nanggroe Aceh Darussalam (18.5%), West Sumatra (17.7%), NTB (10.9%), South Sumatra (9.2%) and Central Java (6.8%).

Based on the research that held in Indonesia, the country's percentage of schizophrenics are around 1-2% of the total population, which means Indonesian's schizophrenics population reach the number of 2-4 million people, with 700.000-1.4 million are diagnosed as active schizophrenics. It is even stated that of all patients which resides in Indonesians mental hospitals all over the country, around 70% of them are schizophrenics (Wicakna, 2001).

Susanto (2007), stated that mental disorders such as schizophrenia is a condition that highly correlates with the problem of individual, family, and society. Patients of mental disorder may face certain conditions caused by the stigma & labeling from the society that sticks to them by default. These are the factors that push passive acts between patient's family members, which can lead to an act of abandonment of the family member that suffers from mental disorder.

There are many of them who haven't received any optimal treatment for those who suffer severe mental disorders. Sometimes, deprivation might be the only option for economic reasons, as for some people don't have enough money to have a proper treatment. There are many patients who got abandoned by their family in some of mental hospitals, as for their family didn't know how to cope with the current condition of their family member which suffers from mental disorder. At home, their family is only able to provide medication, and the medication could occur to some discontinuation, this can lead to the recurrence of the patient's mental disorder. Many people with mental disorders did not get the support of the family. In other conditions, people who suffer from mental disorders didn't get any support at all from their family.

Many mental disorder people had been stranded and taken away by the police and social services to Griya PMI Peduli Surakarta to give them shelter, medical, and social care. Most of them are not known origin place, home, or family. This is because of their psychological factors that made them do not remember their background nor identity. There is no charge for needy family to put their family member who has mental disorder there.

One of the biggest problems faced by mental disorders is the problems of stigma. Stigma is a sign or identification of signs, consisting of shame, stain, or contamination. Stigma is closely related to the lack of understanding or

misunderstanding regarding mental disorders, including its medication and psychiatric profession (Carol et al, 2008).

People tend to perceive and regard mental disorder as a form of fear; of disease; of ignorance; and of violence. Some cultures of people still believe that mental disorder is the work of some kind of ghost, or evil spirit, a dirty line of blood, toxic, and a low moral integrity. Within our society, there are a lot of discrimination in employment, public services, insurance, and the right to receive education for individuals who suffer mental disorder (Andriyanti, 2004).

According to Syamsul Hadi (2006), most people in Indonesia with a family member suffers from mental disorder are usually embarrassed and chose to hide, isolate them, let alone they treated inhumanely. Things like this are still closely associated with the public stigma that mental disorder is a disease that is a shame and a disgrace to the family. While the family would prefer to leave mental disorder and do not provide care to clients. Things like this will certainly complicate the client's recovery rate.

The theory used in this research is the dramaturgic theory of stigma. In his book, Goffman pays attention to certain problematic aspects of self-representation. Stigma refers to the people with disabilities, and because of that they do not gain social acceptance in the society. These are people who can be humiliated or degraded easily, especially those who are homeless and wanders around without wearing any clothes on. Here the stigma itself is still labeled on the group where people are still looking for full social acceptance. Here is where the structure of institution and situation comes in. Meanwhile, those who are degraded are the ones that have shortcomings in following the standards of social acceptance (Ritzer, 2012).

Goffman (1963) is interested in the gap between what a person should have, (virtual or virtual social identity), and what a person is actually, "actual social identity". Anyone who has a gap between the two identities will be stigmatized. Stigma focuses on the dramaturgical interactions between stigmatized and normal people. The nature of these interactions depends on one of two stigmas which labeled to an individual. In this case, with so-called discreditable (visible—clearly known) stigma, the actor who is doing a humiliation act towards people who are different with the social standards and categorized as abnormal, assumes that differences between stigmatized and normal people are obvious or can be seen directly. For example: people with visible disabilities such as blindness, or missing body parts.

On the other hand, a form of discreditable (invisible) stigma is a condition where those differences in people is not clearly visible to the audience members, such as; homosexuality, transgender, bisexuals, etc. For those who have problems with discreditable stigma, the dramaturgic problem here is how to manage information in order for it does not leak out to the audiences (Ritzer, 2012)

## **Method**

This research entitled “Stigma on Schizophrenics in Griya PMI Peduli Surakarta” was a form of qualitative research as its basic research, hints the qualitative research as an interactive process, and as a form to understand the stigma built by the society for schizophrenic. The researchers were using phenomenological approach in conducting

this research. Simply put, phenomenology is a part of qualitative methodology, which contains historical values. These aspects match with our research that study of “Stigma on Schizophrenics in Griya PMI Peduli Surakarta”.

This research is held in Griya PMI Peduli Surakarta, adressed in Jl.Sumbing Raya, Mertoudan, Mojosongo, which has begun its operation since 19<sup>th</sup> September 2011. With 15 people as its human resource, and –according to the data by Griya PMI Peduli– currently there are 157 people as residents (patients), consist of 46 female and 111 male, with 53 of them had already reunited with their family, and this number is significantly increasing every day.

This research uses purposive sampling, in which the researchers already choose the right and trustworthy informant which is considered aware of the right information and its problematics. (Slamet, 2006). Meanwhile, interactive model from Milles & Huberman (1992) applied for data analysis technique, with the steps as follows; 1. Data reduction; 2. Data presentation; 3. Conclusion withdrawal.

To get the valid data, researchers find out the problem from different sources to compare whether the problem related to the reality. Researchers use triangulation technique to check the validity of the data by using external factor for comparison (Moleong, 2004). Triangulation can be used based on the source of the data accomplished by comparing data got from interview in different time and place from the data taken before. These types of the questions are similar to validate the data. The new transcript is made based on data taken from the latest interview to compare with the previous one. The validation result is similar with the previous data.

## **Result and Discussion**

Here are the results and discussion of research on Stigma in Schizophrenics at Griya PMI Peduli Surakarta.

### **Physical and Mental Illness**

Everyone have different point of view about the understanding of disease; physical and mental. Psychology says that a healthy person is someone who is physical and psychological healthy. If someone gets injured, infected by virus, they are physically ill. If they don't have both nor the mental health, they are considered having mental disorder, even though they're physically healthy they will still be considered as someone who suffers from mental disorder in the society. So, if they have both, they are intact. This discussion will lead to the further discussion about normal and abnormal, such as mental disorder in the next part.

### **Normality and Mental Disorder**

A person is classified as normal if they fit the values and norms of social rules that apply in the society, in order to create social order. If someone doing some unusual things that are not incompatible with the values and norms of the reference habits and behavior to interact in the society, they will be classified as someone with mental disorder, or as we speak, known by the term as schizophrenia. It aims to ensure the

preservation of human life, as well as an effort to secure communications and the traffic of life.

### **Social Deviation**

The application of regulations are considered necessary, in terms to define which is right and which is wrong, which things that the society wants and which that needs to be thrown away. This is what is called in terms of normality by everyone living in the society, which has given the feelings of security in the hearts of each person. A person must be adapted to the social standards of the society, for those standards of the ethical norm hold the important role in maintaining and preserving the society. Thus, many of people's vital and biological needs have to be curbed and regulated, for the welfare of humanity and justice, such as the rules of personal hygiene for the comfort of living with others, dress codes, behavioral norms, etc. In related to these rules, many people feel hampered or shocked by sorts-kinds of rules, social norms, and social standards, because they are experiencing great frustration, which leads them to mental disorders and insanity. These things later being considered as a form of deviation by the society, yet in the other hand, also bring intolerance due to their unstable state of mind that could not be determined as a form of deviation. People who suffer from mental disorder often labeled as a form of deviant behavior, this phenomena is applied as a consequences of his behavior did not meet the rules of social behavior in the society. These rules are the one that set the system of values and norms which has been agreed by the society for the sake of social order.

### **The Dramaturgy Theory**

Each person has a front stage and back stage. A difference in the understanding of the next stage which is captured by the audience is behind the stage displayed by schizophrenics in public. While the front of the stage for schizophrenics only occurred when they were in conditions that improve the effects of drugs taken so that it can control the mental and can make people understand that there is a reality beyond the new reality they have. This has spawned social distance. For Goffman, stigma was born because there is a gap between what a person should have, "virtual social identity", and what that person actually has, "the actual social identity". Every person has the gap between these two identities in stigmatization and this is the reason why schizophrenic is beyond people's stigma. There is a distance between virtual social identity and social identity. They are seen by the audience (society) as the front stage that does not fulfill script demanded and audience's expectation. It is caused by different manuscript understanding of schizophrenic who has new reality, and people who do not understand any other reality beyond realities they already understood.

### **Theory Analysis**

#### **The Dramaturgic Theory of Stigma**

Basically, there are plenty of views about social phenomena happened in society. There are also a lot of differences and similarities of understanding about illness. Illness which is divided into physical and mental illness called as normal and abnormal in society's view. View of normality which discusses about value and norm which becomes social rule as guidance in behavior form front stage and back stage

called Dramaturgy. This view finally forms a stigma in society. It is caused of the distance between virtual and factual reality.

This research used Dramaturgic theory by Erving Goffman. Goffman stated that social interaction law can be found in stage law. Person plays a role in theater (Rachmad Dwi Susilo, 2008:368). Schizophrenics living in Griya PMI Peduli Surakarta also play a role as Goffman said when they face the audience. This research focuses on schizophrenics and audience's view. They are forced to understand that life is a drama which needs performer, performance, region, stage, script, setting and audience.

Goffman said that each individual or team has to play the role carefully so they perform the best performance. The keys are on the script and the audience itself. Each individual or team has to understand whether they are on front stage or back stage. Front stage is a place where the performers are controlled, monitored, and evaluated by the script and audience. They do the make work, as Goffman said. They have to show as real as possible to others to convince an image they would like to form. Hence, they have to adopt their personal surface through their role band dramatize it by adding the signs which give an impression in their activity and it seems right.

This research found that not all the performance in front stage give audience's expectation. Kartini Kartono said that the performance and expression played by schizophrenic is not common. It has social disorientation and not fluent. It makes a delusion and makes them have delusion of grandeur which makes them feel jealous and suspicious. Sometimes they experience delusion of persecution that makes them aggressive; doing demolition, even suicide (Kartini Kartono, 2005:271). This reality happens to the schizophrenics that makes them are not able to distinguish between reality and delusion. This new reality becomes front stage for schizophrenics. They perform their performance with new script, new value, and new norm reality which is agreed by themselves and different with the society.

According to the society, Schizophrenics perform their front stage which is their real back stage not common. On their back stage, they can't see the audience which they can recognize or not. What they perform is not suited anymore to audience's character, norm, and value. They don't notice whether it is new or old audience. They ignore whether the audience in front of them had understood and adapted to their performance. They detach all norm and value when they are on the front stage.

The back stage for Goffman is very different from the front stage, as the front stage requires a lot of devices that needs to be learnt to support the appearance and maintain impression in front of their audience—individual and society they are facing. On the other hand, the back stage is the true self an individual have, there is no effort of impressing the audience. When society sees schizophrenics, they see the back stage of schizophrenics as their front stage, schizophrenics show such back stage in front of public because they are no longer attached with norms or manuscript that requires and restricts their actions. Schizophrenics in Griya PMI Surakarta have mental disorder as a result of their action in their front stage that has different manuscript with society and other schizophrenics. People say that they are crazy, lunatics, but for them as they already stated in research result, they understand that what they do is fitting so people should not call them so. This problem happens because the manuscript difference that

schizophrenics and society have, society sees the front stage of schizophrenics does not fit the value and norm they have agreed upon while actually schizophrenics have different value and norms they agreed on. They have their own norm because they have new reality that presents new value and norm for them.

Same with other schizophrenics, when they are on their front stage for example in front of nurse or psychiatry who take care of them every day, schizophrenics in Griya PMI Surakarta show impression as if they are healthy and do not have mental disorder in order to be free and reunited with their family. They show that they are no longer having mental disorder, not angry, able to socialize, not crying, and have significant betterment by showing that they are diligent, helpful to others, friendly and always smile to people. This kind of action is the reason why Mbak Hayu, Mas Pras, are considered recovered and able to be reunited to their family. So schizophrenics have same front stage with general society, but the front stage that they show is not fully understood by society. Only people who have intense interaction with them—nurse, psychiatrics, and friend in their habitat which is rehabilitation and psychiatric center in Griya PMI Peduli Surakarta—can understand their whole front stage. In addition, schizophrenics do not suffer mental disorder for 24 hours straight, they could only suffer the psychiatric disorder for several hours or they even do not suffer the disorder at all if they ear the medicine regularly and they maintain their positive thoughts. When they do not suffer the psychiatric issues, they can do activities that general people do, for example sewing, embroider, making hand-craft, cooking, washing dishes, doing entrepreneurship, doing artistic activities or working to gain money like Mbak Hayu. This is the front stage that cannot be seen by every society since they are living in social institution named Griya PMI Peduli Surakarta which cannot be accessed easily unless they have authority that has been given by the employees.

The term of total institution is introduced by Erving Goffman in his book entitled *Asylums: Essays on the Social Institution of Mental Patients and Other in Mates* (1961). They are the places that separate the occupants from the outside world by high walls and locked gates. It includes mental hospitals, prisons, schools, and so on. These places also known as asylums. In the asylums, Goffman looked at the people in these institutions trying to interpret their experience rather than justify the systems they face.

Judging from Goffman's analysis about total institution, Griya PMI Peduli Surakarta meets all the criteria he stated. Total institutions can be divided in several levels; all aspects of life carried out in the same place and in the same single supervision; each member is doing the same activity and tends to have the same idea; a series of everyday life are strictly planned, the entire sequence is controlled by the system or organization and formal inspectors; a variety of activities are directed and forced into a single plan to achieve the goal of institutions.

Griya PMI Peduli Surakarta is considered as total institutions that function as psychiatric hospital or rehabilitation for mental disorder patients. The term of total institution is used to analyze the institutions that limits human behaviors through bureaucratic processes that cause physical isolation from the surrounding normal activities. Individuals are treated as sub-ordinate who strongly depends on the organization and the person who is being authorized in the organization. Here, people who suffers from mental disorder including schizophrenics are the individuals who

lives in the same situation, separated from the general society and even their own family for a certain period to live a formal and regulated rules applied in Griya PMI Peduli Surakarta. This is where they live, after months of being lost and wanders in the streets. Here they only interact with certain communities that have been authorized by the agency as an organization that take care of them. All of their behaviors are strictly regulated so they will not harm other people around them and return to the values and norms of society. They are guided to leave their very own reality and enter the reality of general society. All activities in Griya PMI Peduli Surakarta has already governed in standards and rules that runs by and from the power of the director of Griya PMI Peduli Surakarta.

The schizophrenics who treated here have different environment compared to people from the outside. In this institution there are values and standards that have been agreed by the people who live in the neighborhood Griya PMI Peduli Surakarta. Those values are different with the values in other communities such as bald women become common and it is not considered as violating the rules because it is a form of health care of their body, it will be more harmful if their hair is left neglected for too long because bugs could make their scalp itchy and make them scratching their scalp. Taing medication every day is a reasonable act for schizophrenics, if they do not want to take medication they will be considered violating the rules and should be sanctioned, being restored in a assylum for better treatment. The general community can not follow their norms and values because they will feel unnatural or not common and vice versa, schizophrenics can not fully follow the values and norms of society, because they have a new reality that can not be understood by the public. This is the core reason of what causes stigma according to Goffman.

The conclusion is that the stigmatization of schizophrenics as people who are sick, have mental disorders, dangerous, contagious, threatening, disgusting, and incapable of having communication ultimately make audience who see it as their front stage avoid them because their action is irregular. This avoiding action later on create discrimination, exclusion and skepticism from the audience to schizophrenics and people with mental disorders in general. It is simply the gap of understanding between the front stage and the back stage of schizophrenics, society think that the actions shown by schizophrenics are their front stage while actually they shows their back stage to the society as they have new reality and different norms. They have different front stage with regular people because they live in a total institution that requires different norms and not accessible for everybody. It is an imaginary line called virtual abyss by Goffman that becomes invisible barrier between the realities that generate stigma. Audiences' view which are society in general to schizophrenics who once had a positive attitude because their actions were in line with society's norm changed when their actions are no longer fit the society's norm because they have new reality that cannot be understood by general society. This changing does not only happen to the audiences who see schizophrenics, schizophrenics also possible to give stigma to general society as bad people for not being able to understand their new values and standards. The stigma given by society triggers the reoccurrence of schizophrenia in which schizophrenics relapse due to differences of values and standards that are being embraced and understood by both sides. So the sigma is not only given by general society to schizophrenics, but also by schizophrenics to general society. Then, stigma is not an illness, it is a constructional difference between the values and thoughts between the actor of stigmatizing and the person who get stigmatized.

## Conclusion

This research has led to the conclusion that there are different points of view for schizophrenics and there are different understandings of new realities condition in people with mental disorders including schizophrenia. The stigma that emerged from the public according to dramaturgical theory of Erving Goffman happen in the form of virtual and factual distance. Everybody has front stage and back stage. There are differences in understanding the front stage captured by the audience which actually is the back stage displayed by schizophrenics. The front stage of schizophrenics is only shown when they were under effects of drugs taken so that it can control their mind and can make them understand that there is a different reality in the society outside their own reality. This produces the social distance. For Goffman, stigma happens because there is a gap between what a person should have, "the virtual social identity" and what the person actually is, "real social identity." Anyone who has the gap between the two identities is being stigmatized. This is why schizophrenics are under people's stigma. There is a distance between the virtual social identity and actual social identity in the eyes of audience (society), audience sees the actions of schizophrenics as the front stage that does not fulfill social requirements and expectation because there is different understanding of the manuscript among schizophrenics who have new reality and the audience who could not understand the reality beyond the reality they understand.

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***Links between Prosocial Value and Bystanders' Helping Behavior in Bullying Situation: The Mediating Role of Collective Efficacy and Psychological Well-Being as Moderator***

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**Abstract**

Collective efficacy was examined as a mediator of relations between prosocial values and bystander's helping behavior, where psychological well-being functions as a moderator between prosocial values and bystander's helping behavior: whether they are willing to help a bullying victim, or on the contrary, support the bully. To answer this question, a study was conducted involving 2.725 participants consisted of 1.657 students and 1.068 adults (school personnel and parents as participants). Through vignettes, participants were given the role as bystanders in a bullying situation and asked whether they are willing to help the victim or on the contrary will support the perpetrator. Collective efficacy partially mediated between prosocial values and bystander's willingness to defend a victim or supporting the perpetrator. Psychological well-being did not mediate when data from students were evaluated. Psychological well-being did mediate the relations between adult's prosocial values and their helping behavior, whereas the relationship in helping the victim is stronger, when the psychological well-being is better. The findings provide evidence for the central role of prosocial values and the role of collective efficacy and psychological well-being in predicting bystanders willingness to help in bullying situation. The implication of this study suggests that it is needed different approaches for students compared with adults, considering increasing helping behavior in bullying situation in school.

Keywords: Bullying, Bystanders' Helping Behavior, Collective Efficacy, Psychological Well-being, Value

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## Introduction

Bullying is widely regarded as a serious problem in schools in many countries (Craig et al., 2009; Smith, Monks, & Coyne, 2011), with no exception in Indonesia. Bullying in Indonesian schools have been noticed since 2004, after some students were seriously injured and even beaten to death by their seniors. This kind of violence is a relatively a recent known problem in Indonesian schools and it is still debatable whether bullying was an issue before or it is a new phenomenon in Indonesian schools. But regardless of the debate when bullying began appearing in Indonesian schools, studies show that the highest level of bullying is observed in high school compared to other school level (Djuwita & Royanto, 2008; Riauskina, Djuwita, & Soesetio, 2005).

Decreasing and preventing bullying in schools are urgent goals for schools, because the negative impacts are severe. When bullying happens in a school, students who are victims often have academic, personal and social difficulties (Hernández & Seem, 2004; Juvonen, Yueyan, & Espinoza, 2010) and these negative impacts of bullying often last into adulthood (Adams & Lawrence, 2011; Ttofi, Farrington, & Lösel, 2012). The negative impact of bullying will also have its impact on other students who are not actively involved in bullying. They may be afraid to go to school because they are afraid to be a next victim (Gini, Albiero, Benelli, & Altoe, 2008) and feeling of fear and intimidation can affect their capacity to learn academically and socially. The negative impact will also affect the family and the school reputation could be tarnished (Sullivan, 2011).

Considering the negative impacts of bullying, it is indisputably important to find ways to prevent or at least decrease bullying. Being a bully and a victim is related with their personality which has been long developed, therefore long term interventions are needed to change the behavior of the perpetrator and the victims (Sherer & Nickerson, 2010). Consequently, the most potential party to be empowered to stop bullying are the bystanders (Ahmed, 2008; Pöyhönen, Juvonen, & Salmivalli, 2012). In school bullying context, bystanders are usually defined as students who are witnessing a bullying incident but are not actively involved in the bullying act, neither as a perpetrator nor a victim (Cowie, 2014). However, some scholars argue that the definition of bystander should not be limited to students, but should also involve adults - like parents, teachers, guidance counselors, school psychologists, bus drivers, librarians, school administration staff, cafeteria workers, and security officers - who are part of the school community (Stueve et al., 2006). For this reason, in this research, we take students and adults (teachers, school administrators and also parents) as participants. As participants, they will be given a vignette where they see themselves having the role of a bystander.

From the explanation above, it is important to discover factors that influence bystanders' helping behavior in bullying situation, because these factors are the key to decrease and prevent bullying. However, for bullying in Indonesian high schools, it may require a somewhat different approach; given the different cultural backgrounds as collective society, Indonesian bystanders could respond differently in helping behavior than participants from Western countries because they have a different value priorities.

Like other behavior, helping behavior is caused by several internal and external factors. Helping behavior as one form of prosocial behavior, implies that the actions taken are beneficial to others and as having positive social consequences (DeLamater & Myers, 2007). Helping behavior which is usually defined as "*an action that has the consequence of providing some benefit to or improving the well-being of another person*" (Piliavin, 2009, p. 210). Helping in bullying can be done by defending the victim, but not helping by being inaction or responding with the "code of silence" if asked about a bullying incidence (Syvertsen, Flanagan, & Stout, 2009) can be considered supporting the bully perpetrator (Coloroso, 2005). Because there is always the choice to do good for the well-being of others or not, prosocial and helping behavior are always related to internal factors, what we call as values (De Dreu & Nauta, 2009).

Values are "trans-situational" and they will serve as "guiding principles in the life of a person or other social entity" (Schwartz, 1994). This means that value will determine behavior independent of the situations. Schwartz developed a comprehensive theory of basic values, which has already been tested in several cultures (Vecchione, Casconi, & Barbaranelli, 2009). He categorizes five values as social focused values (Security, Conformity, Tradition, Benevolence, Universalism) and the other five values as more personal focused (Self-Direction, Stimulation, Hedonism, Achievement and Power). In this article, we refer the values which are social focused as prosocial values.

Helping behavior is not only driven by internal values. Research also shows that the degree of well-being can determine whether individuals are more willing to help or not (Baumeister, Masicampo, & DeWall, 2009). Experimental studies showed that individuals who were unsatisfied - in other words, individuals with low psychological well-being - with their situation will decrease their helping behavior (Dewall, Baumeister, Gailliot, & Maner, 2008). But other studies shows opposite results (Piff, Kraus, Cote, Cheng, & Keltner, 2010): the lower their well-being is, the more they are willing to help others.

Accordingly to Huppert (2009, p.137): "psychological well-being is about lives going well. It is the combination of feeling good and functioning effectively". Ryff (1995) explained, that there are six key dimensions of this synthetic model of well-being: self-acceptance, positive relationships with other people, autonomy, environmental mastery, purpose in life, and personal growth. In short, Ryff (2014, p.11) summarizes that the essence of psychological well-being is knowing about yourself and becoming what you are. Most of the studies investigating psychological-well being, consider psychological well-being as an outcome (Brown & Ryan, 2003) or proving the precision of Ryff's measurement (Abbott, Ploubidis, Huppert, Kuh, & Croudace, 2010). This study consider psychological well-being as a moderator on helping behavior of bullying bystanders.

As part of a collective society, Indonesian people place great value on the group (Matsumoto & Juang, 2012). Based on this cultural tendency, Indonesian bystanders will have a high tendency to be prosocial, to be more concerned in a student is a victim and they will attempt to settle a conflict as soon as possible if it arise in the school community; yet this does not seem to happen in bullying situations. With this in consideration, the authors assumed that Indonesian bystanders will help only if they presume that they are supported by their community, or in other words if the bystanders believe that other community members can and will help, the probability

to help will rise. The belief in the capability or collective power to produce a desired result is called “collective efficacy” (Bandura, 1995, 2006).

Most of the studies done in Western countries, stresses the importance of self-efficacy as a predictor to understand why school bystanders help or not help in a bullying situation (Gini et al., 2008; Pöyhönen et al., 2012; Thornberg, Rosenqvist, & Johansson, 2012). But surprisingly, there are still few studies relating the collective-efficacy and bystanders helping behavior, although Bandura (2000) already emphasized that many problems cannot be solved without the support of the community. In this study, we want to understand the role of collective efficacy because some studies already show that collective efficacy is a stronger predictor of helping behavior than self efficacy (Chen, 2015).

As there are very limited studies focusing on helping behavior in bullying especially in Indonesia, or other collective society, the authors find it important to explore more about Indonesian bystanders' helping behavior, mainly whether prosocial values are mediated by collective efficacy and moderated psychological well-being towards helping the victim or supporting the perpetrator.

## **Method**

Data were collected from 2.725 respondents which consists of students (1.657 participants) and school staffs (1.068) from 3 cities in Indonesia. We used questionnaires with vignettes for gathering quantitative data and focus group discussion as qualitative data to deepen our understanding of the quantitative result. Quantitative data was analyzed using the structural equation model (SEM).

## **Result**

Before running the data with SEM, we checked the bivariate correlation between the exogenous variables: variables that is not caused by another variable in the model, and the endogenous variables: variables that is caused by one or more variables in the model (Kenny, 2011). Our data for students as well as for adults showed that prosocial value are positively correlated with defending the victim and negatively correlated with supporting the perpetrator. The same trend is seen in collective efficacy and psychological well-being variables.

Our analysis showed the structural model was fit for students and adults data (CFI 0.956, TLI 0.951; CFI 0.968, TLI 0.963). The student's SEM model showed that prosocial value was partly mediated by collective efficacy and psychological well-being did not mediate prosocial value, but it negatively predict bystanders response to support the bullying perpetrator. For adults bystander, the model showed collective efficacy fully mediated prosocial values towards helping the victim, but it only partly mediated prosocial values towards supporting the perpetrator. Our analysis showed that psychological well-being does function as a moderator for adults but not for students.

## Discussion

To help or not to help a bullying victim and instead supporting a bully perpetrator is a complex phenomenon. Our result showed that prosocial value does positively influence helping behavior in bullying situation, but other factors also has some role. In our study collective efficacy partly mediated prosocial value for students and adults towards helping the victim or supporting the perpetrator. The higher the prosocial value is, Indonesian bystanders will believe more on the capability of others in the school community and they will be more likely to help the victim. On the contrary, the lower their prosocial value are, the less they will believe that others are willing to help and the more they will tend to support the bully. This result gave some new insights that the support of the school community is very important to reduce the bullying level. As Bandura (1995, 2000) always accentuated in his writings that many problems cannot be solved without the support of the community.

Previous studies shows the role of school norm (Dijkstra, Lindenberg, & Veenstra, 2008) and school climate (Boyd & Barwick, 2011), but literature search shows no study has put attention on the psychological effect of the bystanders to help or not in bullying situation. The findings provide evidence for the central role of prosocial values and the role of collective efficacy and psychological well-being in predicting bystanders willingness to help in bullying situation.

In this study, we found that high collective efficacy will have its impact on helping the victim and low collective efficacy will tend to support the bully perpetrator. Psychological well-being also plays a role in determining whether a bystander will help a victim considering his/her prosocial value priority. Interestingly, psychological well-being will interact with prosocial value and determine the helping behavior of adults but not for students. Adults psychological well-being will strengthen the effect for prosocial value. In other words, to help a bullying victim adults behavior will not only depend on their prosocial value but also a good psychological well-being state.

These result will have some implication on developing a prevention and intervention programme. Our results consequence suggests that it is needed different approaches for students compared with adults, considering increasing helping behavior in bullying situation in school.

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***Does Bystanders' Psychological Well-being and Attribution towards Victims Matters in Helping a Bullying Victim?***

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**Abstract**

Previous studies showed that psychological well-being plays an important role towards prosocial behavior, but it is unclear how bystanders' psychological well-being together with their attribution (the extent to which the victim was considered guilty of becoming a victim) influence their willingness to help in bullying situation. 1.868 participants consisted of students and school completed a self-report measurement about bullying vignettes. High scores on psychological well-being and low score on attribution was found to be related in helping behavior. On the opposite, participants with low psychological well-being and high score on attribution tended to support the perpetrator. The findings of SEM analyses also demonstrated that moderation pattern of attribution on psychological well-being was evident only for supporting the perpetrator behavior and not for helping the victim. In other words, even at high levels of psychological well-being, bystanders tend to support a perpetrator when they attributed a victim as guilty for their condition. The implication of this study suggests the importance of maintaining positive psychological well-being for individuals who study or work in schools and also the need to explain about bullying to all stake holders of the school.

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## Introduction

Children are affected by events that happen in social and physical context where they live (Bronfenbrenner, 1986; 2009). Therefore, family, school, and the whole surrounding where the children live, are important factors in children's lives. According to Berns (2012), school plays an important role in academic, psychological, emotional, and social development of a child.

One of the important issues that often happens in schools is bullying (Carrera, DePalma, Lameiras, 2011). Since 2011, bullying in Indonesia has increased every year (Rostanti & Hazliansyah, 2015). Bullying is an aggressive behavior that has been done by someone or group to hurt, humiliate, or shut out an helpless victim and who perceives that the act would be repeated for a long term (Frisén, Jonsson & Persson, 2007; Salmivalli, 2010). Bullying cannot be seen as a simple issue because it could cause many negative impacts. The negative impact would affect the victim, the perpetrator, other students, family, even the school, itself (Hernández, & Seem, 2004; Juvonen, & Espinoza, 2010).

By considering the various negative impacts from bullying, prevention and intervention to end bullying become very important. The key to prevent and end bullying is by bringing out the prosocial behavior, because the prosocial behavior is an antidote of various forms of violence (Hoover & Anderson, 1999). Studies showed that if there is an intervention from other parties who are not involved (referred to as bystander) when bullying happens, then the success rate of bullying prevention could reach until 50% (Hawkins, Pepler, & Craig, 2001; Fekkes, Pijpers, & Verloove-Vanhorick, 2005). Thus, the key to stop bullying is by influencing bystander to be more willing to help the victim.

Based on research findings, prosocial behavior is correlated with emotional state or someone's well-being, but the results are still contradictive. Balliet dan Joireman (2010), for example, have found that when someone's well-being is low, then their tendency in helping would decline. But, other researches also show that negative emotional state could increase helping behavior (Cialdini & Kenrick, 1976; McGinley et. al., (2010). Our literature study suggests that there are no studies yet, linking psychological well-being (Ryff, 1989) and helping behavior in bullying situation. With this consideration, we want to understand more about the role of bystanders' psychological well-being in helping the victim or supporting the bully perpetrator.

Other factor that considered to have a role in bystander's prosocial behavior when bullying happens is the bystander's attribution toward the victim. That means, how the bystander perceives the victim, whether the victim is to blame being bullied because of his/her own fault, or the perpetrator's fault, would determine whether the bystander would help the victim or not (Gini, Pozzoli, Borghi & Franzoni, 2008). Bystander tends to feel reluctant in helping the victim if the victim is perceived to be responsible of his own condition. As we know, most of bullying studies took place in western countries and students who participated in these studies, commonly do not agree with bullying and they sympathize towards the student who helps the victim (Rigby & Johnson, 2006). But, we believe that this perception is could be different than the bullying bystander in Indonesia.

Therefore, we are interested to see the role of the psychological well-being and bystanders' blaming attribution towards bystanders' helping response.

### **Research Question**

Does bystanders' psychological well-being and attribution towards victims matters in helping a bullying Victim?

### **Methods**

Researcher has succeeded in obtaining data from 1.892 respondents consisted of students and non-students (teacher, employers, and other adults who were in schools) from 18 senior high schools in Jakarta, Bogor, and Bandung. The data collection has been done by distributing questionnaires and doing focus group discussion. The quantitative data has been analyzed by using Structural Equation Model (SEM).

### **Results**

Our analysis showed that psychological well-being (PWB) and blame attribution played a significant role towards bullying bystanders (Model fit  $\chi^2(1892) = 1143.6, p = 0.00$ ; RMSEA = 0.034  $p \leq 0.05$  0.000; CFI = 0.950; TLI = 0.944). Simultaneously psychological well-being and blame attribution explained 9% of defending behavior and 26% of bully supporting behavior. The higher the psychological well-being of a bystander is, the higher his/her tendency to help a bullying victim is. On the contrary, the lower the psychological well-being, the lower his/her tendency to help a bullying victim. Surprisingly, the blame attribution variable towards the bullying victim has a significant positive impact towards helping the victim and supporting the perpetrator. Psychological well-being also function as the moderator of the helping behavior. Psychological well-being significantly roles as the moderator of the victim's blame attribution towards the perpetrator's supportive behavior. In other words, even at high levels of psychological well-being, bystanders tend to support a perpetrator when they attribute a victim as being guilty for their condition. But, psychological well-being doesn't act as a moderator when the victim's attribution is not to be blamed.

The focus group discussion data revealed that bullying does happen in most of the school that have been the research location. The school characteristic where bullying does not happen is a school that is moderately small and has good relations between the students, teachers, and parents. Most of the students blame the victim to provoke the perpetrator by being different from others, even it is something physical. Most of the students chose to help the bullying victim indirectly (like, reporting it to the teachers) because they concerned that they would be the next victim. They considered that helping directly is a provoking action and they do not want to interfere in other students' problem. On the other side, adults like teachers and school staffs chose to help the bullying victim directly.

### **Discussion and Conclusion**

The research result showed that bullying happens in most of the schools that have been the research sample. The average student respondents revealed that they preferred to help bullying victim indirectly by reporting it to teachers, then helping

directly. And most of the adults' respondents said that they would help directly if they face a bullying situation. This results is in line with the results of previous study, and this also indicate how important is the role of adults who are in the school in reducing bullying (Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Georgiou, 2008; Sawyer, Mishna, Pepler, & Wiener, 2011; Stueve et al., 2006)

As hypothesized, bystanders' psychological well-being and blaming attribution will determine their helping behavior in a bullying situation. Bystanders' psychological well-being have a significant positive impact toward the helping behavior to bullying victims and significant negative impact toward the supportive behavior of the perpetrators. This result also supports previous study that was conducted by Jennings and Greenberg (2009), which showed that someone with a good well-being would be more prosocial, because a good well-being will influence a stable emotional state and this in turn will affect willingness to help. This finding has given an insight that schools need to pay attention in individual's psychological well-being to create a prosocial climate, that could decrease bullying. Schools also need to be aware of ways to increase students' well-being and besides paying attention on the problems which are happening in schools. When the majority of students have a high psychological well-being, then the school atmosphere would be positive as well, and automatically the students would help bullying victim. This prosocial climate will then decrease bullying.

In our study, students suggest that bullying happens because the victim's fault: being a coward, cannot socialize well, has a low self-esteem or too high, doesn't respect the seniors at school, breaking the senior's rules, nor the victim's appearance that is considered to be inappropriate. This study shows a different result comparing to studies in Western countries, which showed most of the students perceive the victims are not guilty (Gini et al, 2008). This paradigm needs to be changed in Indonesian schools because, whatever the reason is, bullying is an unjustified action. Anti-bullying socialization needs to be given for everyone in school: students and adults: so they would understand that bullying is a harmful act for everybody in the school, and hopefully they will be more willing to do something to stop bullying.

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***The Effect of Varying Short Message Service (SMS) Intervention for Promoting Safe Sex among Army Conscripts in Lopburi Army Area, Thailand***

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**Abstract**

This study examined the effectiveness of self-regulation and mobile phone SMS intervention to promote safe sex among army conscripts in a central province, Thailand. Conscripts (n=192) were recruited by multi-stage sampling and stratified into 3 groups: 1-way SMS, 2-way SMS and a control group. Data were collected at baseline, 1, 3 and 6 months after intervention. Repeated measurement ANOVA was used to statistically compare significant differences of theoretical variables and safe sex practices between 3 groups overtime, while all theoretical variables were significantly different among 3 groups ( $p < .05$ ), overtime, safe sex with condom use, abstinence from alcohol drinking before or during sex were not different between 1-way and 2-way SMS group ( $p > .05$ ). The study showed the benefits of SMS intervention in promoting safer sex practices either 1-way or 2-way SMS, but a strengthening program for safer sex behavior is required for creating a safe sex behavior among army conscripts.

Keywords: self-regulation, Short Message Service (SMS), safe sex, conscripts

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## Introduction

At present, sexual risk behavior is threatening the health status of Thai population and undermining quality of life of the population all ages. As they are in the young age and their career, the army conscripts are particularly at sexual risk behavior compared with the other groups. Data showed that 48.8% of Thai conscripts having sex outside marriage, 22.3% having sex with female sex workers, and 3.8% having sex with men (Kanokwan S. et al, 2010). For several causes of these military have more chance to infected Sexual Transmitted Infectious (STIs) and HIV/AIDS. HIV prevalence of Royal Thai Army RTA military conscripts from 2008 to 2012 are 0.47, 0.51, 0.57, 0.47, and 0.56 respectively, meanwhile, HIV incidence in the past 5 years were 0.32, 0.30, 0.49, 0.15, and 0.23 respectively (Armed Forces Research Institute of Medical Sciences, 2012). Although HIV prevalence is stable for many years, there is still no evidently declined SMS intervention was found a significant improvement in sexual health knowledge and an increase in the proportion of STIs testing (Gold J, et al, 2010). It was well established that tailored health messages were more engaging and effective at changing behavior than untailored or bulk message (Fjeldsoe S. B., Marshall L.A., Miller D. Y., 2009). There are many factors limiting health system capacity in developing countries. Therefore, SMS is a challenge method for health information and health behavior change intervention because it has a high penetration of all of the population even though they are lower in socioeconomic position. The highest rate for using a mobile phone is amongst the adolescents, younger adults, less educated young adults, people who always change address, and people who are socioeconomically disadvantaged (Koivusilta, Lintonen, & Rimpela, 2007). In spite of the potential of SMS interventions delivered by mobile technologies in worldwide, there are few literatures on SMS-based programs in Thailand. The study of the effectiveness of squad leader mentors through short message services on mobile phone in promoting safe sex among first (central) army area conscripts of Thailand showed the treatment group was significantly increased in knowledge, practice in condom use and perceived advantage and frequency of using SMS. The mentors' message through SMS via mobile phone provided health education information to promote safe sex and awareness regarding HIV and other communicable disease (Kaoaiem, Taneapanichskul, Somrongthong, Saengdidtha, & Lertmaharit, 2012).

Mobile phone and short message service (SMS) are one of the important newly techniques that can be directly given any information to individuals at any time and setting. In particular, SMS intervention has positive short-term behavioral outcomes corresponding to a military inducted situation. Because of conscripts are among the most vulnerable people with HIV infection, they are far away from their family and more directed by peer pressure (UNAIDS, 1998; UNAIDS 2004). Conscripts in this specific condition need for appropriate intervention for promoting their sexual health behavior. Therefore, it is expected that SMS technologies will be effective for improving health outcomes in recruitment of the armed forces period. It is important to further investigate the effectiveness of tailoring the content in SMS intervention.

The purposes of this study were examined and compared the effectiveness of self-regulation and mobile phone SMS communication to promote safe sex in terms of

theoretical characteristics, condom use and abstain from substance use prior or during having sex among 1-way SMS communication, 2-way SMS communication and control groups.

## Methods

### Participants

Participants were military conscripts who allocated to Lopburi army area. Lopburi province was selected in this study due to a large number of conscripts and a high number of army camps in the area (Royal Thai Army, 2013). The estimated sample size was calculated by G\*Power 3 (Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A, 2007). A total of 192 army conscripts were enrolled in the study. Multi-stage sampling was performed to recruit 3 army battalions into the study. Conscripts of each battalion were randomized separately into 3 groups. The two intervention groups were comprised of 1-way SMS (n=64) and 2-way SMS (n=64), the other was control group (n=64). Participants in the 1-way and the 2-way SMS groups were excluded conscripts who were unable to send and receive text message. Inclusion criteria were voluntary conscripts who were in Lopburi military camps during the study period, not diagnosed as HIV positive (*Data from each Army Battalion*), having a mobile phone and using SMS throughout the study period.

### Research tools

Self-administered questionnaire were used. It consisted of 8 parts as follows: Part 1 Socio-demographic characteristics, Part 2 Self-regulation, Part 3 Self-efficacy, Part 4 Outcome expectancy, Part 5 Risk perception, Part 6 Intention to practice, Part 7 Action plan, Part 8 Sexual behavior Part 2-8 were a Likert type scale questionnaire measured theoretical characteristics and safe sex practices. Theoretical characteristics included self-regulation (total score = 4), self-efficacy (total score = 4), outcome expectancy (total score = 4), risk perception (total score = 5), intention to practice (total score = 5) and action plan (total score = 4). Safe sex practices in the past 3 months included condom use (total score = 3) and abstain from substance use in terms of alcohol drinking and drugs use prior or during having sex (total score= for both variables). Content validity of professional agreement was filled in the Index of Item-Objective Congruence (IOC) formula, the overall IOC was 0.80. The pilot study for reliability testing was performed among 45 army conscripts in the Saraburi province. The Alpha Cronbach's coefficient test for reliability was 0.866.

### Procedures

This study is a quasi-experimental design conducted from November 2013 to October 2014. Written informed consent was obtained from subjects prior to conduct any related procedures. All study protocols and related documents were approved by the Ethics Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University. After recruitment, the 2-intervention groups were

trained about self-regulation and practiced to receive SMS. Two different text messages were sent to participants per week in 1-way and 2-way SMS groups during 3 months of the program. All participants who received the SMS must reply by sending “OK” back within 24 hours after reading text messages, but it should not be longer than 72 hours. If this was not done, they were excluded from the study. In addition, the 2-way SMS participants were allowed to send SMS back to the researcher to inquire about safe sex and sexual risk when they needed more information. The answers would be sent back to those who asked immediately. All questions and answers were kept. In the control group, participants were provided only leaflet of safe sex after recruitment. Data collection was conducted at baseline and post-test at 1, 3, and 6 months after intervention.

### Statistical analysis

The statistical analysis was conducted by using SPSS version 16.0. Baseline data were analyzed for differences among 3 groups, by using Chi-square and one-way analysis of variance (ANOVA). Repeated Measures ANOVA was used to determine the difference for four times of measurement. ( $p$ -value  $<.05$  was considered to be statistically significant)

### Results

A total of 192 participants were enrolled in the study. Thirty conscripts were excluded due to withdrawal and some of them did not reply “OK” in time. The participants in each group were 55, 55, and 52 in 1-way, 2-way SMS, and control groups respectively. Total average age of participants was  $21.53 \pm 0.92$  years old, 66.1% of them were 21 years old. At the baseline, there were no significant different among 3 groups for socio-demographic characteristics ( $p > .05$ ), except education level (Table 1).

**Table 1 Baseline of socio-demographic characteristics among 3 groups**

Variables	1-way SMS n (%)	2-way SMS n (%)	Control n (%)	Total n (%)	<i>P</i> Value
<b>1. Age group (years)</b>					0.058 <sup>a</sup>
Mean±S. D.	21.34±0.72	21.75±1.14	21.48±0.82	21.53±0.92	
21	49 (76.6)	39 (60.9)	39 (60.9)	127 (66.1)	
≥22	15(23.4)	25(39.1)	25 (39.1)	65 (33.9)	
Total	64 (100)	64 (100)	64 (100)	192 (100)	
<b>2. Education</b>					0.000
Early secondary and lower	30 (46.9)	2 (3.1)	38 (59.4)	70 (36.5)	
Late secondary, early and high vocational school and sub-bachelor	26 (40.6)	48 (75.0)	24 (37.5)	98 (51.0)	
Bachelor’s degree and higher	8 (12.5)	14 (21.9)	2 (3.1)	24 (12.5)	
Total	64 (100)	64 (100)	64 (100)	192 (100)	

<b>3. Religion</b>					0.086
Buddhist	60 (93.8)	64 (100)	64 (100)	188 (97.9)	
Christ	3 (4.7)	0 (0)	0 (0)	3 (1.6)	
Islam	1 (1.6)	0 (0)	0 (0)	1 (0.5)	
Total	64 (100)	64 (100)	64 (100)	192 (100)	
<b>4. Marital status</b>					0.057
Never married	38 (59.4)	50 (78.1)	39 (60.9)	127 (66.1)	
Married or living with someone	25 (39.1)	13 (20.3)	21 (32.8)	59 (30.7)	
Others	1 (1.6)	1 (1.6)	4 (6.2)	6 (3.1)	
Total	64 (100)	64 (100)	64 (100)	192 (100)	
<b>5. Employment status (Before recruitment)</b>					0.358
Do not have any occupation	7 (10.9)	9(14.1)	8(12.5)	24(12.5)	
Studying	5 (7.8)	12(18.8)	7(10.9)	24(12.5)	
Having an occupation	52 (81.2)	43(67.2)	49(76.6)	144(75.0)	
Total	64 (100)	64 (100)	64 (100)	192 (100)	
<b>6. Estimated income per month</b>					1.639 <sup>a</sup>
No income or revenue < 10,000 Baht	19 (29.7)	23(35.9)	14(21.9)	56(29.2)	
10,000-19,999 Baht	15 (23.4)	16(25.0)	21(32.8)	52(27.1)	
≥ 20,000 Baht	21 (32.8)	17(26.6)	28(43.8)	66(34.4)	
Total	64 (100)	64(100)	64(100)	192(100)	

<sup>a</sup> Age and income per month using ANOVA , other variables using Pearson's Chi-square test.

Theoretical characteristics of the study among 3 groups were compare. There was significantly difference among 3 groups for 4 times of repeated measure on self-regulation, self-efficacy, outcome expectancy, risk perception, intention to practice and action plan (p-value<0.05)

**Table 2 Self-regulation, self-efficacy, Outcome expectancy, Risk perception, Intention to practice and Action plan comparison among 3 groups by using Repeated Measure ANOVA**

Outcome variable	Baseline (n)	1- month FU (n)	3-month FU (n)	6-month FU (n)	p-Value <sup>a</sup>
<b>1. Self-regulation</b>					0.000
1-way SMS	(64) ±0.2.93	(55) 2.84 ±0.61	(55) 2.80 ±0.59	(55) ±0.49	
2-way SMS	(64) ±0.3.01	(55) 3.19 ±0.49	(55) 3.19 ±0.44	(55) ±0.42	

Control	(64)	±0.	(52)	±0.4	(52)	±0.5	(52)	±0.4	
	2.85	44	2.82	5	2.71	0	2.58	7	
<b>2. Self- efficacy</b>									0.00 1
1-way SMS	(64)	±0.	(55)	±0.6	(55)	±0.6	(55)	±0.5	
	3.04	57	2.91	4	2.91	3	3.14	1	
2-way SMS	(64)	±0.	(55)	±0.4	(55)	±0.5	(55)	±0.3	
	3.17	50	3.25	5	3.23	6	3.23	9	
Control	(64)	±0.	(52)	±0.4	(52)	±0.5	(52)	±0.4	
	3.01	47	2.91	6	2.76	0	2.69	4	
<b>3. Outcome expectancy</b>									0.00 0
1-way SMS	(64)	±0.	(55)	±0.4	(55)	±0.5	(55)	±0.4	
	3.21	40	3.03	8	3.02	2	3.31	2	
2-way SMS	(64)	±0.	(55)	±0.3	(55)	±0.4	(55)	±0.3	
	3.20	39	3.34	6	3.30	3	3.28	4	
Control	(64)	±0.	(52)	±0.3	(52)	±0.4	(52)	±0.3	
	3.06	34	3.02	4	2.78	0	2.75	3	
<b>4. Risk perception</b>									0.00 0
1-way SMS	(64)	±0.	(55)	±0.6	(55)	±0.5	(55)	±0.5	
	3.79	48	3.56	0	3.63	9	3.91	2	
2-way SMS	(64)	±0.	(55)	±0.4	(55)	±0.4	(55)	±0.4	
	3.80	47	3.95	9	3.97	9	3.95	5	
Control	(64)	±0.	(52)	±0.4	(52)	±0.5	(52)	±0.5	
	3.75	42	3.45	3	3.35	1	3.06	0	
<b>5. Intention to practice</b>									0.00 5
1-way SMS	(64)	±0.	(55)	±0.7	(55)	±0.7	(55)	±0.6	
	3.83	78	3.84	9	3.77	9	4.05	9	
2-way SMS	(64)	±0.	(55)	±0.7	(55)	±0.5	(55)	±0.5	
	4.01	61	4.12	0	4.12	3	4.11	4	
Control	(64)	±0.	(52)	±0.7	(52)	±0.8	(52)	±0.9	
	3.70	87	3.66	1	3.38	7	3.27	4	
<b>6. Action plan</b>									0.00 1
1-way SMS	(64)	±0.	(55)	±0.7	(55)	±0.7	(55)	±0.5	
	2.76	70	3.07	8	2.96	3	3.16	2	
2-way SMS	(64)	±0.	(55)	±0.5	(55)	±0.4	(55)	±0.4	
	2.88	63	3.18	2	3.21	8	3.28	9	
Control	(64)	±0.	(52)	±0.5	(52)	±0.7	(52)	±0.6	
	2.64	65	2.94	3	2.46	1	2.60	9	

<sup>a</sup>Using Repeated Measure ANOVA, data are descriptive statistics

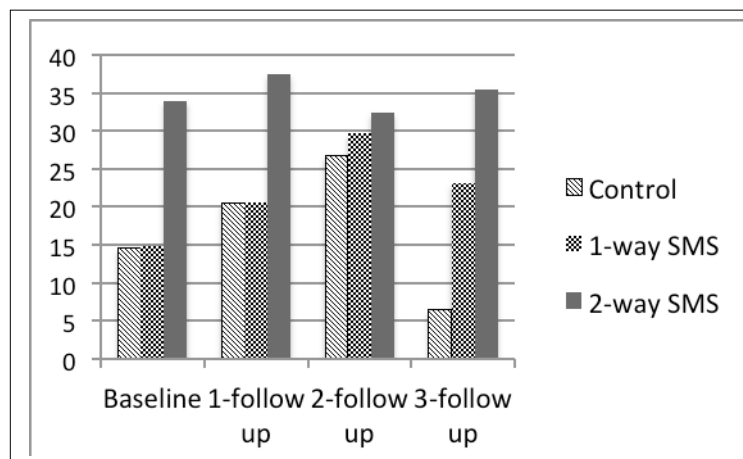
### Condom use comparison among 3 groups

Statistical analysis by Chi-square was used for significant differences testing among 3 groups. The results showed that there was significant difference for condom use before or during having sex only the 1-way SMS group ( $p < 0.036$ ). Comparing between group found that there was significant difference at the follow-up 3 ( $p\text{-value} = 0.012$ ).

**Table 3 Condom use comparison among 3 groups by using chi-square test**

Condom use in the past 3 months	Baseline data n (%)	Follow-up 1 n (%)	Follow-up 2 n (%)	Follow-up 3 n (%)	Chi-square	p-value
<b>1-way SMS</b>					8.528	0.036
Never	14(29.8)	8(20.5)	2(5.4)	6(15.4)		
Sometimes	26(55.3)	23(59.0)	24(64.9)	24(61.5)		
Every time	7(14.9)	8(20.5)	11(29.7)	9(23.1)		
Total	47(100.0)	39(100.0)	37(100.0)	39(100.0)		
<b>2-way SMS</b>					2.116	0.548
Never	5(10.0)	6(18.8)	5(14.7)	7(20.6)		
Sometimes	28(56.0)	14(43.7)	18(52.9)	15(44.1)		
Every time	17(34.0)	12(37.5)	11(32.4)	12(35.5)		
Total	50(100.0)	32(100.0)	34(100.0)	34(100.0)		
<b>Control group</b>					7.371	0.060
Never	14(29.2)	12(30.8)	4(9.8)	8(17.4)		
Sometimes	27(56.2)	19(48.7)	26(63.4)	35(76.1)		
Every time	7(14.6)	8(20.5)	11(26.8)	3(6.5)		
Total	48(100.0)	39(100.0)	41(100.0)	46(100.0)		

**Figure 1 Used condom every time of having sex compared among 3 groups at baseline and follow-ups.**



### Alcohol drinking before or during having sex

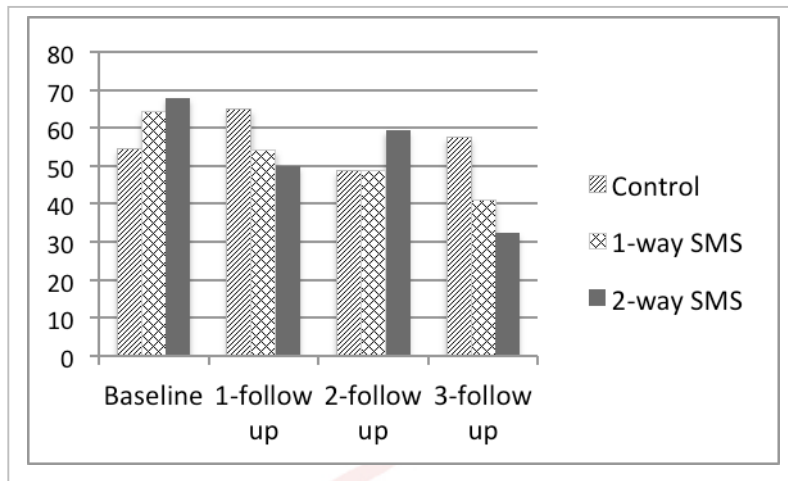
The participants of the 1-way SMS group who never drank alcohol before or during having sex during the past 3 months were 46.6%, 51.4%, and 59.0% (follow-up 1, 2 and 3 respectively). Participants of the 2-way SMS group who never drink alcohol before or during having sex during the past 3 months were 50.0%, 40.6%, and 67.6% (follow-up 1, 2, and 3 respectively). Meanwhile, the percentages of participants of the control group who never drink alcohol before or during having sex during the past 3 months were 35.1, 51.4, and 42.5 (follow-up 1, 2, and 3 respectively). At the last follow-up, the vast majority percentage of alcohol drinking before or during having sex of both intervention groups was “never” (67.6 % and 59.0 % in 2-way and 1-way SMS groups respectively) followed by “sometimes” (38.5 % and 32.4% in 1-way and 2-way SMS respectively). None of participants in the 2-way SMS group drank alcohol before or during having sex at follow-up 2 and follow-up 3. Statistical analysis by Chi-square was used for significant differences testing among 3 groups. The results showed that there was significant differences among 3 groups at follow-up 3 (p-value = 0.009) (Table 37).

**Table 4 Alcohol drinking comparison among 3 groups**

Alcohol drinking	Baseline data n (%)	Follow-up 1 n (%)	Follow-up 2 n (%)	Follow-up 3 n (%)	Chi-square	p-value
<b>1-way SMS group</b>					5.529	0.477
Never	16(35.6)	18(46.2)	19(51.4)	23(59.0)		
Sometimes	25(55.6)	19(48.7)	16(43.2)	15(38.5)		
Every time	4(8.8)	2(5.4)	2(5.4)	1(2.5)		
Total	45(100.0)	39(100.0)	37(100.0)	39(100.0)		
<b>2-way SMS group</b>					14.341	0.026
Never	16(32.0)	16(50.0)	13(40.6)	25(67.6)		
Sometimes	31(62.0)	15(46.9)	19(59.4)	12(32.4)		
Every time	3(6.0)	1(3.1)	0	0		
Total	50(100.0)	32(100.0)	32(100.0)	37(100.0)		
<b>Control group</b>					9.349	0.154
Never	20(45.5)	13(35.1)	19(51.4)	17(42.5)		
Sometimes	24(54.5)	20(54.1)	14(37.8)	22(55.0)		
Every time	0	4(10.8)	4(10.8)	1(2.5)		
Total	44(100.0)	37(100.0)	37(100.0)	40(100.0)		



**Figure 2 Alcohol drinking before having sex compared among 3 groups at baseline and follow-ups.**



## Discussion

### Baseline characteristic of the samples

Conscripts in the 2-way SMS had a higher education level than the other groups. The majority of the 1-way SMS and the control groups graduated in early secondary and lower level, in contrast, the 2-way SMS graduated in late secondary, vocational and sub-bachelor level. The different of the conscripts' education level possibly due to the different of battalion's mission. The conscripts who have long periods (1.5 years or more) were inducted to the operation for combat readiness battalion. Meanwhile, the conscripts who have shorter periods (1 year or less) were designated to the non-operational for combat readiness battalion such as a service battalion or school battalion. The conscripts who have been inducted for 1 year derived from 2 conditions i.e. voluntary and lottery methods. The conscripts who graduated in high vocational school and sub-bachelor or upper have a chance to reduce the serving period in the RTA. Since duty of the Special Warfare Service Battalion is non-operations for combat readiness and the unit serve the army as technical services therefore, the designated of recruitment have more chance of recruiting people who have a high education level. Along with, the conscripts in the 1-way SMS group that was a non-operational for the combat readiness battalion, which is higher education level than the sample in the control group that a combat force battalion. Most samples used a mobile phone in the past 3 months and about 52% of them used smart phone. Nevertheless, a study on mobile phones for health education in the developing world: SMS as a user interface revealed that literacy did not appear to be a significant problem of SMS intervention (Danis M. et al., 2010)

### **Safe sex practices in terms of condom use, abstinence from alcohol before or during having sex after the end of the intervention**

After the end of the intervention, condom use was significant difference among 3 groups at follow-up 3 (p-value = 0.012). Participants of the 2-way SMS group had highest percentage of using condom “every time” when they had sex. Meanwhile, the percentage of using condom “every time” of participants of the 1-way SMS and the control group were similar at follow-up 1 and follow-up 2 but at follow-up 3, the percentage of participants of the control group who using condom “every time” were declined. Abstinence from alcohol drinking before or during having sex were also significant differences at follow-up 3 (0.009).

SMS allowed the exchange of short text messages between fixed line or mobile phone devices. A most benefit of SMS quickly sends information in near-real time for many people as recipients of standardized, a large number of a messages or even personalized or specific messages. Participants of the 1-way and 2-way could reach health information via SMS that lead to safer sex practices. The previous studied revealed that SMS can be used effectively with untrained users for health education where errors are tolerable. The study of Hatairat K. et al., (2010) on the effect of squad leader mentors through short message services on mobile phone in promoting safe sex among first (central) army area conscripts of Thailand. Which was shown the significant increase in condom use with risky partners such as sex worker and other men (p-value < 0.001). The project of Text me Flash me that aimed at HIV/AIDS prevention for MSM and female sex workers presented an increasing of knowledge and intention to use condoms furthermore, voluntary counseling and testing uptake increased after the launch of the campaign (site in De'glise, Suggs, and Odermatt, 2012). Short Message Service are a highly promising method of health promotion for multiple reasons which can be can sent to multiple recipients simultaneously and delivered immediately (Gold J, et al, 2010). Although many various types of technology, for example telephone, e-mail, interactive websites and other social networking sites such Facebook have been the potential health delivery portal to reach adolescents and young adults, Short Message Service (SMS) via mobile phone has appeared as a promising and cost-effective gateway to reach health behavior. Among the emerging health care delivery technologies, mobile phone currently provides the greatest opportunity to be personal, private, and easy access information through the use of SMS (Preston K, 2011). The delivery of messages to individuals can be tracked and guaranteed.

The potential of SMS may be particularly significant among population groups most likely to use mobile phone as their primary means of communication. The mobile phone use is popular among adolescents, young adults, socioeconomically disadvantaged people, less educated young adults, and people who frequently change addresses. Therefore, SMS exists a prime delivery channel for health behavior change interventions, especially in populations of lower socio-demographic status and populations with poorer health (Fjeldsoe S. B., Marshall L.A., Miller D. Y., 2009). Most mobile phone users have their phones turned on and message can be sent to multiple recipients simultaneously and immediately, although without internet access. Mobile phone is

widely available and accessible. The survey of information and communication technology (Households) of National Statistical Office, Thailand 2012-2013 found that 70.2% of population age over 6 years had mobile phone in 2012 and increased to 73.3% in 2013 (Bureau of Policy and Strategy, MoPH, 2014). A meta-analysis of the efficacy of HIV/AIDS prevention intervention in Asia during 1995-2009 revealed the importance of understanding the particular socio-ecological structures of the target site in order to determine the key ingredients of intervention success. Especially, at local level, utilizing existing social structures were most efficacious for HIV/AIDS prevention (Tan et al., 2011).

Although Danis M. et al., (2010) reported that education difference had no effect on SMS intervention, a higher educational level of the 1-way and 2-way SMS groups in this study may have a chance to affect the non-significance on the 1<sup>st</sup> and 2<sup>nd</sup> follow-ups. Also during the last 3 months of data collection, the Lop Buri provincial Health office and the partners had started Voluntary Counseling and Testing (VCT) in military program, that might encourage the conscripts to have more awareness and sexual practice carefully.

### **The effectiveness of the 1-way SMS compared with the 2-way SMS communication**

A chance to respond messages or seek specific advice from researchers has been the key component of the 2-way SMS group. Nevertheless, there was not much questions that sent back to the researcher during the intervention period (approximately 5-10 questions per week). This is concordance with previous study on SMS-based intervention to provide tailored health communication message for HIV-positive MSM which was low response rate to the questions administered via SMS (Furberg et al., 2012). This may be because they have not received much concentration on the message and possibly due to many questions from the samples during training period has been already answered before SMS's allocation. Sending back SMS to the researchers might be burden because the military services will have more routine responsibilities. The effectiveness comparison found the different of theoretical characteristic scores on self-regulation, self-efficacy, outcome expectancy, risk perception, and intentional to practice. The Repeated Measure of ANOVA showed a significant increase from baseline only for an action plan characteristic in both 1-way and 2-way SMS groups. The action plan is accounted for the last process of volitional phase in the Health Action Process Approach, when individual adopt a particular health behavior or intention to change has been designed, the intention has to be transformed into detailed action plans of when, where, and how to behave. Self-efficacy is powerfully influenced by the quantity and quality of action plans because self-efficacious personnel have experienced mastery through former planning, and they imagine to the successful scenarios. Once the new action has been initiated, self-regulatory cognitions to control and maintain the behavior must be activated, and the action needs to be protected from former habits, obstacles, or diverting secondary action tendencies (Schwarzer, 1999). An action plan was the only one of theoretical characteristics in both intervention groups that significantly changed. Action plan is the joint between motivation and volitional phase of The Health Action Process Approach (HAPA). Motivation phase is initial start with increasing risk awareness, outcome expectancies and perceived task self-efficacy that lead to the formation of an intention.

The volitional phase that involved in the process of implementing the intention to actual behaviors, however, good intention will not guarantee corresponding actions. Even though conscripts had a good intention and plan, to have a safer sex, they would fail to perform a safe sex behavior. Overall, military personnel have been a significant high risk for STD and HIV infection (UNAIDS, 2004). However, safe sex in terms of condom use, abstinence from alcohol drinking before or during having sex were not different between the 2 groups. Noteworthy that condom used percentage in the 2-way SMS group was higher than the 1-way SMS and control group at every follow-up. The results on abstinence from alcohol before or during having sex were not difference between the 2 intervention groups. The exploitation on sending messages back to the researcher probably the key to success for safer sex practice. Really seek benefits in the sending question of the 2-way SMS group may not achieve much different from the 1-way SMS group. A text-message can have positive short term behavioral effect for those who received and reading a text-message. The study revealed the effectiveness of SMS intervention via mobile phone equally 1-way SMS or 2-way SMS communication.

### **Conclusion**

The results of this study showed significant outcomes for theoretical characteristics and safe sex practices, especially in the 3<sup>rd</sup> follow-up. Measuring the changes of the intervention for multiple times presented significant difference among 3 groups only at 6 months for the theoretical characteristics. The effectiveness of SMS intervention via mobile phone for self-regulation, self-efficacy, outcome expectancy, risk perception, intention to practice and action plan for safe sex practices were presented in both 1-way SMS and 2-way SMS groups at every follow-up. However, safe sex practices in terms of condom use, abstinence from alcohol drinking before or during having sex were significant differences among 3 groups at 6 months after the end of intervention (3<sup>rd</sup> follow-up). Therefore, implementing the self-regulation and SMS intervention program for promoting safe sex among conscripts can enhancing the benefits of safe sex practices.

### **Limitations**

This study has somewhat limitations of the method as follow:

1. A variation on an efficacy of mobile phone devices of army conscripts who have participated in the study due to the researcher cannot provide a device for the participants.
2. A different speed of sending and receiving a text message that depends on velocity of each mobile phone operator.
3. The difficulty of laboratory test to assess the effectiveness of the program due to after intervention an army conscript may assign into the conflict situation where too inconvenient for the testing.
4. There is also the limitation of generalization of the intervention to other groups as the conscripts are the specific group to obey the command.

## **Recommendations**

The finding of this study found the duration of joining the armed forces possibly to get more sexual risk behaviors. The RTA should pay more attention and launch a health innovation in promoting safe sex practice among military conscripts. A new advance information and communication technologies enable to change behavior and improve their health. The study showed the benefits of SMS intervention either the 1-way SMS or the 2-way SMS communication for promoting safer sex practices, but a strengthening program for safer sex behavior is required for creating a safe sex behavior among army conscripts. In addition to SMS via mobile phone that widely use of a previous time, there is the most popular chance with social network application to transfer health information. Newly technology such as Facebook and LINE that are generally available and access to virtually all of the country will enhance for reduce risky behavior. These modern communication channels through social network enable to automatically transmit the 2-way communication. It should be created a social network group or the specific applications to access and exchange information among conscripts. At present, self-regulation with SMS may not achieve to safe sex practice. The new application may be necessary to strengthen the programs that influence on safer sex practices, for example peer pressure for condom use program and abstinence from substance use especially alcohol drinking. For future study, the researcher recommends that SMS intervention should encouragement the samples to seeking the benefit of receiving and sending text-message should be done. Moreover, an evaluation of bio-marker form the samples such as HIV and STIs testing should be concerned for the exactly result.

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*A Study on Improving Listening Efficacy of Instructions for Nursing Students  
Towards the Accurate Information Transfer*

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**Abstract**

**Aim:** Focusing on the listening efficacy of instructions as skills for medical safety, we devised a social skills training (SST) of instructions-received skills for nursing students. For that reason, this study aims to examine the relationship between the improvement of the skills after SST and the experience of the students.

**Methods:** The participants were second-year nursing students in a three-year nursing program (N = 89, Mean age = 20.3, SD = 2.2). The SST intervention was performed in January 2015 after a 90-minute lecture on transmitting and taking instructions. Pre- and post-SST self-assessment instruments were applied to assess the acquisition of skills for taking directions and transmitting directions, and freely description. Data were analyzed using KH Coder (Ver.2.x 2013) developed by Higuchi (2011), in which hierarchical cluster analysis and correspondence analysis are conducted.

**Results and discussion:** Skills for taking directions were  $44.7 \pm 5.1$  points with  $49.1 \pm 5.5$  points after the SST. The text data of 1257 phrases that consist of 3218 words were extracted and analyzed. Phrases that appeared ten or more times in frequency were classified into five clusters. They were "learning towards the training", "opportunity to think about the instructions received", "anxiety to listening to the nurse", "their actions will lead to incidents", and "it is confirmed the question is important for patient safety". The effectiveness of the SST intervention is suggested for improving skills for transmitting and taking instructions. As a result, nursing students, through SST intervention, learned about the importance of accurate information transfer.

**Keywords:** SST, medical safety, nursing student education, communication

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## Introduction

The population of Japan is aging and the birthrate is declining; therefore, a variety of medical needs exist to address this concern. These medical needs are complicated as the duration of hospital stay have decreased and there is an increased risk of medical accidents. Consequently, patient safety is an important concern now more than ever.

In current nursing practice, the advancement of technology, and the limited time that nursing students have to learn said technology, create risks to patients' medical safety. In addition, younger individuals have shown reduced basic life skills, a lack of common sense, decreased academic achievement, and a lack of communication skills at the workplace (Yoshida & Matsuo, 2015). Moreover, anxiety remains a concern for the safety of the medical team.

Therefore, basic nursing education and new nursing training has been reconsidered in the nursing field. The Ministry of Health, Labour and Welfare have created "rookie nursing staff" training guidelines to strengthen and organize new nurses' education (Ministry of Health, Labour and Welfare, 2011).

In Fukuda and colleagues' report, rookie nurses were found to be subject to both long-term and short-term mental and physical stress (Fukuda-Hanaoka, 2004). It is difficult for new nurses to adjust to their new workplace after graduation. Measures to enable a smooth transition to clinical practice from basic nursing education are required. Moreover, the cultivation of communication skills for the medical care team is critical. Nurses play a key role among medical teams as they provide patient safety, use predictive power and judgment toward the patients' conditions, and require communication skills (Ministry of Health, Labour and Welfare, 2011). This study focused on education to improve new nurses' communication skills to ensure patients' medical safety.

Previous research examining nurses' communication skills noted that the accurate transmission of information is important to prevent negative incidents (Nambu et al., 2006, Masumi et al., 2008). Nambu et al. (2006) analyzed nurses' interaction data to determine the risks associated with communication errors and how closely related they were to problematic incidents. Medical task is adapted to processes temporally stretched a plurality of co-medical staff involved, nurses has implemented this concurrently and multiple other tasks. Nurses' transferring and sharing of information is closely related to the occurrence of incidents. Concurrently, it is also an important key to ensuring medical safety (Nambu et al., 2006). Masumi et al. (2008) noted that when there is no coordination with other departments there is a risk of errors, miscommunication, and missing instructions. In a study of nursing students, Yoshida et al. extracted nurses' reporting skills to clinical leaders with respect to information transmission. According to the report, at the time of graduation, nurses' reporting skills were unidirectional. However, reports have stated that there is the possibility for communication to be bidirectional. Matsuo (2011) described the tools that can be used as a guide when training a nursing student including emergency communication tools such as situation-background-assessment-recommendation (SBAR). On the other hand, Ishikawa (2010) stated that to introduce SBAR into clinical practice, it is important to ensure it is well understood by training leaders and the ward staff, that they cooperate, and that they are adequately prepared for its challenges. Therefore, we



have also focused on nurses' transmission of information and its relation to patient safety. We examined this in the context of social-skills training (SST) and extracted the skills involved in nursing students' ability to receive instructions. If reflective listening did not occur and appropriate questions were not asked we assumed a greater risk of medical accidents. Skillful reception of instructions was measured before and after the SST, using the "instruction receiving skills" extracted from previous studies. As a result, we expected scores to significantly improve after an SST intervention (Yamamoto et al., 2015).

In this study, we analyze nurses' understanding after SST implementation assuming the instructions were received appropriately. In addition, we examined how nursing students felt about the experience related to their improvement of skillful instruction reception through the SST.

## **Methods**

### **Participants**

The participants were second-year nursing students enrolled in a three-year nursing program (N = 120, mean age = 20.3, SD = 2.2).

### **Intervention date**

The SST intervention was performed in class in January 2015 after a 90-minute lecture on transmitting and taking directions.

### **Instruments**

Pre- and post-SST self-assessment instruments were applied to assess the acquisition of skills for transmitting and taking directions.

### **Skills for transmitting and taking directions**

A scale was devised based on previous studies such as Yamamoto (2015), AHRQ (2007), Miller et al. (2008), and Riley et al. (2008). Appraisals were conducted using a five-point Likert-type scale ranging from 1 (*cannot be sure at all*) to 5 (*can be sure*) (Table 1).

Table 1. Skills for taking and transmitting directions

<i>Skills</i>	<i>Definition</i>	<i>Behaviors example</i>
<i>Skills for taking directions</i>	<i>Checking understanding verbally</i>	<i>• Issue instructional content orally</i>
	<i>Concentrate on instruction</i>	<i>• Even when you are busy, stop and listen carefully</i>
	<i>Validity</i>	<i>• Consider on your own whether instructions are reasonable</i>
	<i>Uncertain execution</i>	<i>• If there are any doubts as to the instruction to stop the execution</i>
<i>Skills for transmitting directions</i>	<i>Forwarding to the appropriate person</i>	<i>• People with specific needs or questions are forwarded to the appropriate specialists</i>
	<i>Reporting confirmation</i>	<i>• Seek reports or notes on the item at hand</i>
	<i>Level adjustment</i>	<i>• Observe whether instructions are executed successfully, and determine the necessary support</i>
	<i>Confirmation and evaluation of the implementation process</i>	<i>• Instructional content and explanations are devised to allow instructees to fully understand action</i>

### SST: Skills for taking directions

The class was divided into role-playing groups of three: the nurse, the nursing student, and an observer. The role-player received suggestions regarding how to receive and question/confirm their instructions from the other students and the teachers.

### Statistical analysis

#### Skills for taking direction's point

The sum of the 5 factors of skills for taking directions was calculated using a Pearson correlation coefficient pre- and post-SST. Analysis was conducted using IBM Statistics SPSS 23 for Windows.

#### Free description about what was learned in the SST

Data were analyzed using KH Coder Ver.2.X 2013 developed by Higuchi (2013). Hierarchical cluster and correspondence analysis were conducted and the results were examined and classified.

### Results

#### 1. Skills for taking directions pre- and post-SST

The relationship between skills pre- and post-SST showed a significant positive correlation ( $r = .422$ ,  $p < .05$ ) (Figure 1).

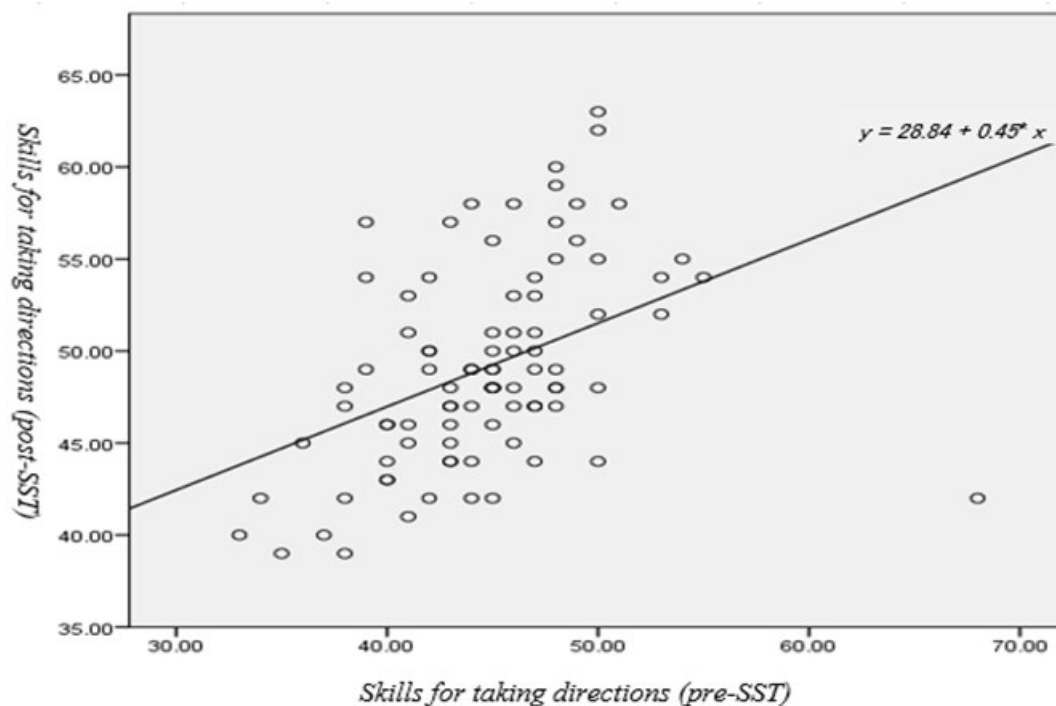


Figure 1. The correlation of skills for taking direction pre- and post-SST

### **The frequency of morpheme occurrence**

The total number of words extracted from the written answers of 89 students was 3,218. Of these, 1,257 were extracted as the analysis target.

### **The learning contents of instructions received in SST**

#### **(1) Learning elements in the SST (cluster analysis)**

Hierarchical cluster analysis was conducted to increase the frequency by 10 times or to extract 23 morphemes. The learning element of social skills training was extracted for taking direction skills. A hierarchical clustering dendrogram obtained through analysis (square Euclid distance, Ward's method) showed results along a distance of 150 obtained from high interpretability. In short, five clusters were extracted (Figure 2).

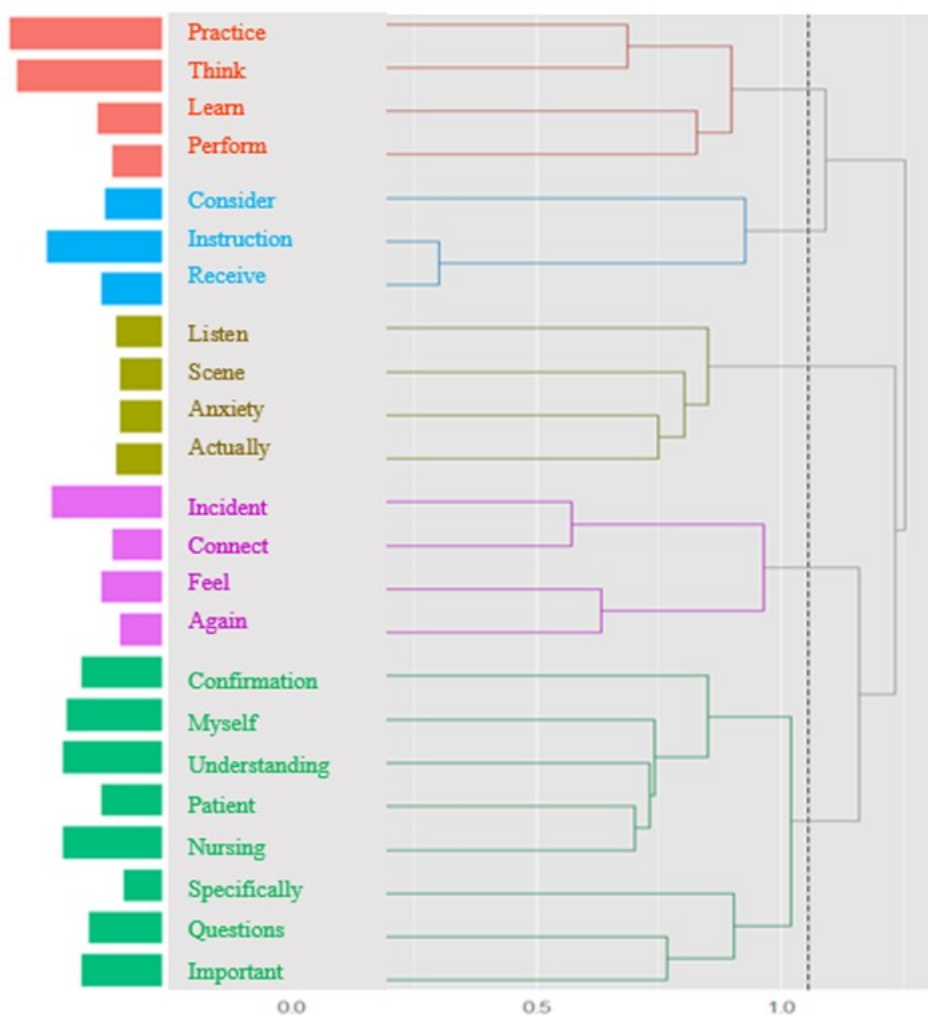


Figure 2. Cluster analysis

According to analysis results, five factors were extracted: “Learning towards training,” “opportunity to think about taking directions,” “actual anxiety about listening to the nurse,” “feels that their actions will lead to an incident,” and “the safety of the patient must be confirmed by specific questions” (Table 2).

Table 2. The learning contents of the skills for taking direction

Cluster analysis		Learning the contents of the extracted taking direction skills
Practice Think, Learn, Perform	1	Learning towards training
Consider , Instruction, Receive	2	Opportunity to think about taking direction
Listen, Scene, Anxiety, Actually	3	Actual anxiety about listening to the nurse
Incident, Connect, Feel, Aagain	4	Feel that their actions actions will lead to the incident
Confirmation, Myself, Understanding, Patient, Nursing, Specifically, Questions, Important	5	It is important for the safety of the patient to be confirmed by specific questions

## (2) Changes in the scoring transition pre- and post-SST (correspondence analysis)

Pre-SST, the mean score was 44.69 (SD = 5.07). The scoring changes are shown in Table 3.

Table 3. The skills for taking direction by group

		Post-SST	
		Low	High
Pre-SST	Low	15	26
	High	5	43

## (3) Characteristics of the groups' learning by change of the skills for taking direction point

The four lists after measuring frequency of the extracted morphemes groups are shown in Table 4. The value of the Jaccard coefficient indicated a value as the similarity is greater as it is closer to 1. The "Low-High change" group represented those that asked questions, recognized the importance of nursing, and understood the difficulty. The "High-Low change" group felt the need to question and learned awareness from the lack of perspective. The "High-High-maintenance" group were able to understand instructions and were able to think in connection with the incidents. Finally, the "Low-Low-maintenance" group was intended to show the importance of instructional confirmation, and had learned corresponding in response to an instruction. Characteristic phrases were extracted for each of four groups.

Table 4. Taking direction skills score change group: Another keyword

High-High (N = 43)		High-Low (N = 5)		Low-High (N = 26)		Low-Low (N = 15)	
<i>Incident</i>	.147	<i>Confirmation</i>	.107	<i>Think</i>	.179	<i>Perform</i>	.133
<i>Practice</i>	.146	<i>Important</i>	.103	<i>Nursing</i>	.129	<i>Instruction</i>	.103
<i>Myself</i>	.133	<i>Danger</i>	.083	<i>Question</i>	.127	<i>Nursing</i>	.089
<i>Instruction</i>	.109	<i>Repeat</i>	.083	<i>Practice</i>	.123	<i>Learn</i>	.077
<i>Understand</i>	.103	<i>Daily</i>	.083	<i>Difficult</i>	.120	<i>Confirmation</i>	.074
<i>Consider</i>	.091	<i>Eye</i>	.083	<i>Listen</i>	.118	<i>This time</i>	.067
<i>Receive</i>	.079	<i>Fun</i>	.083	<i>Feel</i>	.107	<i>Receive</i>	.058
<i>connected</i>	.072	<i>Small</i>	.083	<i>Important</i>	.097	<i>Corresponder</i>	.050
<i>Patient</i>	.071	<i>Expression</i>	.083	<i>Concrete</i>	.096	<i>Surely</i>	.050
<i>Behavior</i>	.064	<i>Calm down</i>	.083	<i>Understand</i>	.095	<i>Ambiguous</i>	.050

## Free description of participants who's SST score had decreased

The scores of 10 individuals decreased after the SST and the description content are presented in Table 5. Learning the importance of confirmation actions such as "I want to take advantage of training in the future" was positively received in the SST.

Table 5. Description contents of participants who's SST score had decreased

Group	Pre-SST	Post-SST	Post-SST - Pre-SST	Description content
Low-Low (N = 1)	44	42	-2	I have found that lurking a variety of medical accidents in the medical field. We want to protect the safety of patients in cooperation with around to eliminate the medical accident.
	55	54	-1	No description.
High-High (N = 4)	50	48	-2	I thought when I received the instructions, "I can do it". However, that alone would become uneasy. I felt would lead to an incident from there. I want to hear from this exercise, anxiety to get rid of. I want to be able to understand questions, and I want to incident prevention behaviors.
	53	52	-1	Small mistakes were found that could often lead to a larger incident
	48	47	-1	I was able to really understand because it was actually their own is likely to experience content in practice site. I was able to a little relieved. I that was found to have felt the anxiety other people.
	46	45	-1	We learned a lot about the dangers that can occur by not confirming instructions.
High-Low (N = 5)	47	44	-3	It was fun.
	45	42	-3	I learned that it was important to convey my thoughts to the other party in my own words. Future training should ensure this is implemented in day-to-day procedures.
	50	44	-6	When I speak with the nurse, content to hear did not come out immediately. I thought it was important to continue to check also small that if there is a question calmly in any case,
	68	42	-26	I was able to understand the importance of taking the repeated questions and confirmation.

### Related four groups of learning features (scatter diagram)

A scatter diagram is presented in Figure 3 as a visual representation of the correspondence analysis results. Components 1 and 2 represent the contribution ratio of the components, representing 81.78% of the total data. In addition, memory axis represents the score of each component. In correspondence analysis, there is no word of the features and collection to the appearance pattern plotted near the origin (0.0). Then, as the term is away from the origin, it can be interpreted as a word characterizing the groups (Higuchi, 2013).

The X-axis can be interpreted as indicating nurses' intrapersonal thinking, understanding, and acting: "Interaction with others in the world." The Y-axis can be interpreted as the axis indicating realistic thinking and understanding introspection: "Introspective self-inspection and examination."

Describe the relationship of learning for each group below:

The High-High-group and Low-Low maintenance group were adjacent near the origin and the learning contents were close. These are not the point of the study is similar, and reflect on yourself and say either. High remains of people who are able to embody, low remains of people who had a subtle difference that often close to their own learning.

The Low-High-group and the High-Low change group were separated when viewed from the vertical axis. The Low-High group showed "realistically what is ready to move into action," as shown by the meaning of phrases "concrete, scene, hear". The Low-High rise group, still be able to adopt the others point of view, which can be converted to a realization.

The High-Low falling group (five only), lacked incorporating others' point of view and learned to "convey the question" and "confirm importance." This was a feature not yet been acting out remains in its reflection.

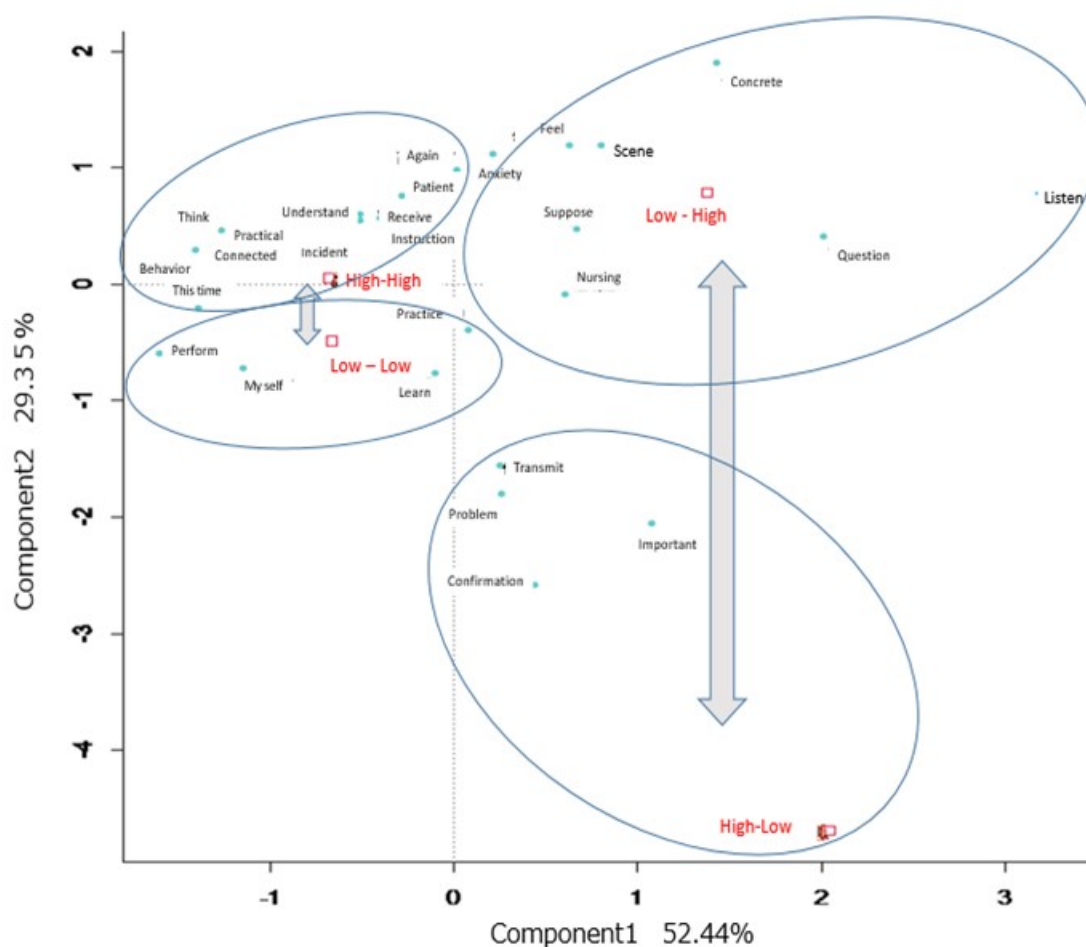


Figure 3. Correspondence analysis results by group showing the score changes in skills for taking direction

## Discussion

There was a distinctive learning difference among each of the four groups. Of the score maintenance group, high - high group reconfirmed to connect with incidents and technique of instructions received skills. This advanced a specific understanding to prevent incidents. The Low–Low and High-High groups showed similar learning including self-evaluation, introspective learning features, and the importance of receiving instructions.

For the score change High-Low group, individuals were believed to have learned that it is important to confirm the question such as to recognize self-skills through self-reflection properly.

The Low-High group is believed to have led to an increase in students who did not know how to listen significantly. When interacting with others, it is a characteristic way of thinking such as understanding the specific questions and information accurately.

In summary, between the two groups, it was taking the perspective of others that brought about changes. In other words, it is critical to be aware of the exchange of instructions. "It is the interaction with others", whether to bring what kind of

consciousness there, there you can or implemented or considered measures, and the key is to learn that It is considered to be.

In addition, the group instructions received skills score was increased after the SST is a person who was considered the embodiment, it is considered to be a person who was able to image or How do I make in practice. Only aware of the risk and importance, even if possible increase in the immaturity of awareness and prudence, action as a countermeasure is also considered necessary to learn as a next step. Therefore, "skill learning to teaching the acting out" would be said that important. In particular, even if want to do, I do not know the manner of the way, even though the important, the people who, how stepping is hesitation not know, instructions received skills SST will help.

### **Learning stage of the instruction received skills**

An analysis of the study's contents after SST learning revealed that even those who had an originally high-instructions received skill score, by looking at the behavior of others, the need for their own an opportunity to be compared with the self to take a more appropriate action lead in learning. However, as of the group to which low rises, High - Low, since you have not reached the "learning to concrete action, such as listen to questions", to students, for the skill to receive the instruction, considered student each of the learning phase is present. In other words, learning is caused due to the objective view yourself as the effect of modeling learning brings. In addition, to tell to check the question cognitive rustic learn such is important is generated.

In other words, the acquisition of the instructions received skills created a distinct learning phase: 1) build proper recognition, 2) understanding the need for action towards correct information transmission, 3) be able to organize and perform specific information transmission acquisition, and 4) execute concrete clinical actions. Yoshida et al. In order to implement two-way communication for accurate information transfer the acquisition process of reporting skills proposed by Ishikawa SBAR is important. In addition, the acquisition phase of the instructions received should be considered when developing a technical education program for the accurate information transfer to nursing students.

### **Towards the learning of accurate information transfer**

This study examined the communication challenges related to information transmission Yoshida et al. suggested varied teaching methods to organize the educational content. Sharing ideas and to listening to questions when nursing students do not understand instructions will improve bidirectional communication. This indication received skills SST is a clinical training just before the intervention. Some those who had already acquired the skills, were also those who do not. For example, by incorporating from the first year of the acquisition of the instructions received skills as action learning systematic, it can be proposed learning of the small step.

Moreover, gradual learning might reduce student's anxiety. By fostering confidence, students' ability to understand the importance of accurate information transmission will enhance skill acquisition. This is important as the lack of confidence and knowledge of novice nurses are dangerous and can lead to medical accidents.



Incorporating a stepwise method toward implementing skills instruction could lead a more effective means of acquiring reliable instruction-receiving skills. This is required among other medical practitioners such as doctors and pharmacists to ensure accurate information transfer and safe medical care.

In this paper, we examined nursing students' ability to receive instructional skills before and after SST. However, the connections with real-world clinical practice require further analysis as students are not currently able to implement these instructions independently. For this purpose, which Ishikawa (2010) also pointed out, it is necessary to understand cooperation among clinical leaders in the healthcare field.

### **Conclusion**

First, the analysis of the free-description text data revealed and extracted five elements to the skill of receiving instructions. Second, the skill of receiving instructions that improved for the Low-High change group was characterized by an accurate understanding of the specific questions and information. The reduced skill for the High-Low group can be improved by learning to properly recognize self-skills through self-reflection. Third, the High-High maintenance group was characterized by specific ideas, and the Low-Low group was characterized by introspective learning and the importance of receiving instructions. Aware of the "it is the interaction with others", whether to bring what kind of consciousness there, there you can or implemented or considered measures, it has become clear that the key to learn that It was.

Therefore, to acquire instructional receiving skills through SST it is important to 1) build proper recognition, 2) understand the need for action towards correct information transmission and concrete actions, 3) reduce errors in information transmission, and 4) execute concrete clinical actions. The instructions received during SST early in the first year are necessary to enhance nursing students' learning of technology and accurate information transfer.

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The logo for the International Association for Frontiers in Research (iafor) is centered on the page. It features the lowercase letters "iafor" in a light blue, sans-serif font. The text is enclosed within a circular graphic composed of two overlapping, semi-transparent arcs: a light blue one in the foreground and a light red one behind it, creating a sense of depth and movement.



***The Correlation between Work and Family balance and Quality of Life with Gender as Mediator Variable among Java Ethnic Group***

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**Abstract**

This research aimed to investigate whether there is a correlation between work-family balance and quality of life, with gender as a mediator variable. This research was done in Indonesia, among low social economic population from Java ethnic. There were 66 participants involved in the study (29 females; 37 males). WHOQOL was used to assess quality of life, and Work Family Balance Scale by Hills et al (2001) was used to measure work-family balance. A moderated regression analysis was conducted for the statistical data analysis. The main effect was significantly confirmed, that there was a significant positive correlation between work-family balance with quality of life. The interaction effect was not significantly confirmed, that the association between work-family balance and quality of life is not moderated by gender. To understand the dynamics of the work-family balance and the quality of life among the men and the women in Java ethnic, a qualitative interview was conducted. Facing with life challenges, the Java ethnic has a unique believe which is called '*narimo ing pandum*', translated as being accepting and grateful in any life situation, surrender for what is destined to someone's life. The impact of this value will be discussed in relation to how they experience work-family balance and quality of life.

Keywords: work-family balance, quality of life, gender, indigenous Javanese value "narima ing pandum"

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The amount of economic burdens has forced many families in various parts of the world today to become dual-earner couples; and some of them not only dual-earners, but also dual-professionals who have dual careers (Bond, Galinsky & Swanberg, 1998). As it was recorded that 6 out of 10 families in America are dual-earners family, and many industrialized countries around the world are also experiencing the same phenomenon (Greenhaus, Callanan, & Godshalk, 2010). The demographic data also showed that there is an increase in the number of women who get into the labor market in the US, that in 2005, 59.3% of all married women are working, as compared to only 30% in 1960. Meanwhile, in the same year, 62.6% of women who have been married and have children under 6 years old, are working women, as compared to only 19% in 1960. The same trend is found in Indonesia lately. The number of working women who are absorbed into the industrial world has been increasing as much as 4.3% annually ([www. Bappenas.go.id](http://www.Bappenas.go.id)). Data also revealed that more dual career couples are commonly found in Indonesia.

In dual-career couples, either men and women are expected to be involved in doing household chores and childcare. It means that men of dual-career couples have more responsibility to do, as compared to those who come from one-career couples. The same thing applies to women from the dual-career family. They are not only expected to manage housework and childcare, but they are also expected to do some works out side of the family. As work and family roles are central components in people's lives and thus demand a great deal of time and energy; work and family roles can have a meaningful impact on psychological well-being and satisfaction (Kossek & Ozeki, 1998; Schultheiss, 2006; Schwartzberg & Dytell, 1996),

Nowadays with the emerging of new technologies, (such as mobile phones, email etc) although it makes people's life easier, but at the downside, these communication tools allow workers to still get phone calls or emails from their office, at anytime even during their vacation or when they are with their family. Recent studies found that 10,000 companies in the US provide PDAs for employees, 60% of employees carry the PDA when they are on vacation, 20% contacted by their company when they are on vacation (in Greenhaus, et al., 2010). This technology makes workers are like working 24 hours a day, even on their days off.

Meanwhile, considering the increase of criminal acts against children lately, parents are expected to be more protective of their children, monitor their children closely more than ever to make sure of their children's safety. Other than that, in a competitive world nowadays, children are also expected to exale in school and community. This demands urge parents to educate their children in a more serious way in a hope that they will be succesful. In short, greater public attention to appropriate child rearing have encouraged parents to give more time for the family (Hacket, 1998). All things considered, nowadays, juggling between work and family become a challenging acts more than ever before (Hills, et all., 2011). Scholar refers this efforts to balance work and family as Work-Family Balance (hereinafter called WFB).

WFB is thought to be in an individual's interest to live a balanced life between work and family (Kofodimos, 1993). Generally, WFB is seen to improve the well-being (welfare) of individuals. Research conducted by Greenhause et al., (2003) found that there was a significant correlation between the WFB to the well-being of

individuals. Greenhouse et al. stated that the correlation between WFB and well being is affected by several conditions. When people just invest a little time in the WFB and when people have low levels of satisfaction in both roles, their well being tends to be low. Meanwhile, individuals who have positive balance, are those who invest enough time, having emotional involvement and satisfaction evenly distributed in both areas (work and family) are those who tend to have a positive well-being. Furthermore, this study also supports previous research about the imbalance in the workplace (individual too much emphasis on work than family), which can damage the quality of life that with the increased work-family conflict and stress (Friedman & Greenhaus, 2000; Kofodimos, 1993).

According to research by Barnett & Hyde (2001) WFB positively correlated with quality of life, for several reasons: First, WFB would be a protective factor for people when they have to face some negative effects in one area, because the individual believes that no area is more worthless. In addition, the WFB also makes them less overloaded, look at each role in a more relaxed/quiet state, and less depressed. Furthermore, the involvement of a balance between work and family will reduce work-family conflict from being too chronic. Because they are fully involved in both roles, they will not let "situational urgencies" hinder performance in their roles (Mark & MacDermid, 1996). Instead, they will develop a routine that enables them to meet long-term demands of the roles, to avoid work-family conflict is prolonged. In short, the balance between work and family allows the individual to reduce work-family conflict and stress. The absent of conflict and stress eventually will lead the individual to achieve their quality of life.

Kofodimos (1993) states that the condition of work imbalance will increase stress, reduced quality of life, and ultimately reduce the effectiveness of individual work in the workplace. This study is in line with that recorded by Nayab (2011) that imbalance of WFB will affect the various issues such as serious health problems and stress that will be manifested in the violence in the work, high absenteeism, and improving health insurance claims by employees, which indicates the low quality of individual's life.

Although some previous studies have consistently found the correlation between WFB and quality of life, but it should be noted that in Asian countries especially, men and women, traditionally are faced with different roles and demands. Although male participation in the works of the house has increased, but significant tasks within the family is still imposed on women (Naithani, 2015). For women, the greater social demands, expecting women really successful, especially in family life. Research Korabik (2014) also found that women workers in Indonesia, Taiwan and the Arabs felt guilt when he did not fulfill the traditional responsibilities of that role in the family.

Further research Kochanska, Gross, Lin, and Nichols (2002) found that women seem to be more affected when they do wrong actions than men. This is also supported by research Kubany and Watson (2003) who found the level of guilt is generally higher experienced by women rather than men. In the study of Korabik (2014), women feel obliged to fulfill the things that have been enforced to them. Other research also suggests that although being employed has a positive relation to quality of life among adults (Noh, Kim, Park, Kim, & Kwon, 2015), but their study found that work status

plays a more important role in quality of life for men than for women. Given all of this, it is plausible that the magnitude of correlation between WFB and quality of life will be moderated by gender variable.

Apart from that, Indonesia's biggest ethnic group is Java ethnic. There is one concept that is highly valued in Java, called "narimo in pandum". This concept derived from the believe that God (the Divine), as the source of spiritual values for Javanese, has made a fixed formula or law called "ukum pinesthi" (Mulder, 1985), meaning "law of destiny". This law mentioned that whatever exists in the world is part of a larger unit, and the world is designed in a harmony. God has created everything and every law perfectly, placed men in certain condition for his own good in this law of destiny. Everyone has to endure this particular destiny (*titah*) with acceptance, no matter how hard it is, by just go through it. Individu supposed to have a *narima* attitude, accept any of his/her condition or station in life, supposedly accept it with grateful acceptance (Mulder, 2005). Either fate, class, hierarchy, gender and events are seen as inevitable (Geertz, 1976). In relation to WFB and quality of life, this researcher wondered if this attitude of *narimo in pandum* are applied in how Javanese people accepting their condition of WFB that may help them to be able to survive even in a hard condition, to have a good quality of life.

Given the above conditions, the researchers propose research problems as follows:

"Is there any correlation between WFB and quality of life with gender as a moderator variable in a couple of workers in Central Java?"

"How the attitude of *narimo in pandum* experienced by Javanese people and how it affect their acceptance of their state of WFB and quality of life?"

### **Quality of Life**

QOL is a vague and difficult concept to define, widely used, but with little consistency (Schotish Executive Social Research, 2005). The definition of QOL can also be traced back from many different backgrounds, such as economic, social, sociology and also psychology. No wonder that Cummins (1996) and Schalock (2000) has recorded that there are over 100 instruments which purport to measure life quality in some form, that based on different kinds of definitions. Taken together, the concept of quality of life broadly encompasses how an individual measures the 'goodness' of multiple aspects of their life (Theofilou, 2013). These evaluations include one's emotional reactions to life occurrences, disposition, sense of life fulfilment and satisfaction, and satisfaction with work and personal relationships (Diener, Suh, Lucas, & Smith, 1999).

The World Health Organization (WHO) stated that the quality of life is a state of complete physical, mental and social well-being, so it is not merely the absence of disease. Specifically, quality of life (QoL) is defined as "the individual's perception of his/her position in life in the context of his culture and the value systems of the society in which he/she lives compared to his/her objectives, expectations, standards and concerns" (WHO Quality of Life Group, 1995, p. 1405). In other words, quality of life concerns a combination of physical, psychological, and social aspects, and emphasizes the proactive approach that individuals can take to their own well-being (WHOQoL Group, 1995). Still in line with the previous notions, Coons & Kaplan (in



Sarafino, 1994) defined quality of life as a common view that consists of several components and basic dimensions associated with health conditions and physical function, psychological state, social functioning, disease, and its treatment. Further more, Cella & Tulskey (in Dimsdale, 1995) asserted that some of the phenomenology perspectives on quality of life underline the importance of subjective perception of how that person is functioning and compare it with his/her internal standard. This is in line with what is proposed by Campbell et al (in Dimsdale, 1995), underlines the importance of the subjective perception and interpretation of the individual towards their life situation.

Based on the explanation above it can be concluded that the quality of life is the individual's subjective perception about their assessment of their position in life, in the context of culture and value system where they live in relation to individual's goals, expectations, standards and concerns, that consists of several components and basic dimensions associated with physical health, psychological, social relationship and environment.

### **Aspects of Quality of Life**

According to WHO, there are some basic aspects that needs to be taken into account in relation to the measurement of QOL. (WHOQOL Group, 1998):

- a. Physical health: disease, sleep and rest, energy and fatigue, mobility, activities of daily living, dependence on medication and medical assistance, work capacity.
- b. Psychological: positive feeling, thinking; learn; remember; and concentration self-esteem, and description of physical appearance, negative feelings, the individual's belief.
- c. Social relationships: personal relationships, social support, sexual activity.
- d. Environment: freedom; physical safety and security, home environment, financial resources, health and social care, opportunities to acquire new skills and information, participation and opportunities for recreation, activity on the environment, transport.

### **Work-Family Balance (WFB)**

In scholars' literatures, the various terms were used to describe the interaction between working life and family, for example: accommodation, compensation, segmentation, drought resources (resource drain), spillover, work-family conflict, work-family enrichment, and work family integration (Friedman & Greenhaus, 2000; Greenhaus, & Beutell, 1985; Greenhaus, & Parasuraman, 1999). The term most commonly used is the work-family balance (Greenhaus, et al. 2003), that some scholars extended to work life balance (Nayab, 2010), considering other area apart from work is not merely about the family per se but wider than that. In this article, these two terms will be used interchangeably, and are intended as the same thing, which is interpreted as reducing working time and spend more time with family or personal life in general. Or in short, it is defined as the individual's interest to have a balanced life between work and family (Kofodimos, 1993).

Marks & MacDermid (1996, p. 421), defining the role of the balance "The tendency to become fully-enganged in the performance of every role in one's total role system, to approach every typical role and partner role with an attitude of attentiveness and

care. Put it differently, it is the practice of that evenhanded alertness sometimes known as mindfulness.

The full involvement in both areas (work and family) is termed a positive balance. It is distinguished from a negative balance, that referring to the condition that individual is not involved in any of both roles (Greenhaus, et al, 2003). Kirchmeyer (2000) defines a balanced life is when people have a satisfying experience in all areas of life, and use resources such personal energy, time and commitment to be well distributed in both areas, work and family/life. Meanwhile Clark (2000) mentions that the WFB is when individuals have the satisfaction and able to work both at home and in the workplace with minimal role conflict. Specifically Kofodimos (1993) adds that individuals with WFB have a fulfilling life, healthy, productive include work, play, and love.

## **Gender**

According Hungu (2007) gender (sex) is the difference between women and men are biologically since the person was born. Sex related to the male body and the female, where men produce sperm, while women produce eggs and are biologically able to menstruation, pregnancy and lactation. Biological differences and the biological functions of men and women are not interchangeable between them, and functions remain with the men and women of all races on earth.

Gender refers to the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex. Behavior that is compatible with cultural expectations is referred to as gender-normative; behaviors that are viewed as incompatible with these expectations constitute gender non-conformity (APA)

## **Java ethnic Group**

Java ethnic group is an ethnic group native to the Indonesian island of Java. With approximately 100 million people (as of 2011), they form the largest ethnic group in Indonesia. They are predominantly located in the central to eastern parts of the island.

## **Methods**

A Survey method is used for this research. Data were collected via a self-reported questionnaires. To add the dynamic of the discussion, interview was used to get some qualitative data from the participants. The data was collected from two companies in Java, one is in batik company in Solo, a city that is considered as the center of Javanese culture and the other one is in Salatagia to represent Javanese but more in suburban area. The sampling technique does present limitations in that it was not random. Anonymity of the respondents was assured during the data gathering.

## **Participant**

During the data collection, 180 questionnaires were distributed to the participants. The participants were allowed to bring the questionnaires home and the questionnaires were collected a week after it were distributed. There were 110 questionnaire were returned. But after checking, only 66 questionnaires could be included in the data analysis as participants of this research, since some of the questionnaires did not meet

the qualifications of the participants, which is: married, come from dual career couples. Participants are consisted of female (29 females, or 43,9% of the participants), 37 males (56,1%). The age of the participants is between 25-55 years old. Most of the participants have 2 children (55%); 29% of them have 1 child, 15% have more than 3 children, and 7% of the participants do not have any children. About the education, the majority was high school (64.4%), followed by college graduated (33.9%), and 1.7% junior high school.

## **Measures**

### **Quality of life**

WHOQoL-BREF standardized questionnaire Indonesian version was used to measure quality of life. This is 26 items scale includes four dimensions: Physical Health (WHOQoL\_PH, 7 items, i.e. "To what extent do you feel that physical pain prevents you from doing what you need to do?"), Psychological Status (WHOQoL\_PS, 6 items, i.e. "Are you able to accept your bodily appearance?"), Social Relationships (WHOQoL\_SR, 3 items, i.e. "How satisfied are you with your personal relationships?"), and Environment (WHOQoL\_E, 8 items, i.e. "To what extent do you have the opportunity for leisure activities?"). Items were scored on a five point scale from (1) not at all, to (5) an extreme amount. Higher scores correspond to better quality of life. Preliminary item analyses lead to remove 1 item because of inadequate psychometric properties. After removing that item, Alpha's Cronbach obtained was 0.886 with aitem-total correlation ranged from 0,228 to 0.661.

### **Work Family Balance**

WFB measured using WFB Scale by Hill et al (2001), a composite of five questions about the ability of the employee to balance the demand of work and family. Preliminary item analyses was conducted, resulted in retaining all the 5 aitems. The Cronbach's Alpha obtained was: 0.715 with aitem total correlation ranged between 0,259 to 0.577.

### **Data Analysis**

Moderated Regresion was used to analyse the data using SPSS 17. Before the analysis was conducted, the tests for assumption were run, included test for linearity, normality, non-multicoliearity, and homoscedasticity. All of the assumptions were met.

### **Result And Discussion**

The main effects of the independent variables (WFB) and dependent variable (QOL) were confirmed,  $R = 0.394$ ;  $R^2 = 0.155$  with  $F = 3.800$  ( $p < 0.05$ ). When we examined individual effects, WFB B (unstandardized beta) is 57.72, with  $t = 3.316$  ( $p < 0.05$ ). This means that the high level of WFB is positively associated with the high level of QOL; meanwhile low level of WFB will be associated with low level of QOL. Meanwhile, the analysis suggested that gender was not significantly correlated with quality of life. No statistically significant interaction between WFB and gender was found, revealing that the effect of WFB to QOL is not moderated by gender. This

means that the strength of the positive correlation between work-family balance and quality of life does not depend on the gender of the individual.

The result of this research for the main effect, supports earlier research done by Greenhaus (2003, 2011) that there is a correlation between WFB & QOL. As Barnett & Hyde (2011) asserted that WFB can act as a buffer when a person has a problem with one area, WFB can also help the person not to be overloaded in one area, and it can also help the person to set up the routine so that they may be successful in both areas.

The result also found that gender is not a significant moderator for the association of WFB and QOL. The possible explanation for this is that although in the old days, work-family balance was considered as a woman's issue only, recent studies indicate that men are as likely as women, have difficulty in managing work & family demands (Hill, Campel & Koblanz; Levin & Pittinsky; Milkie & Petola, in Hill et al 2001). It is also possible that now either men or women do not differ in their expectation towards the gender in dual career, they both have the same feelings of responsibility in balancing work and life.

Interviews were also done to check for Javanese belief called "*narimo in pandum*". The participants have the same idea, that *narimo ing pandum* means that someone has to accept what it is given to them, and be grateful for what it is. But it was found, that not all of the participants agree with this belief. Meaning that not all of the Javanese people that are interviewed accept this belief. But for those who believe in this concept, this belief can help them to feel at ease when the life demands are getting harder. It helps them not to feel so stressed when they are faced with life demands, included.

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*Evaluating the Age of Juveniles in the Juvenile Justice System of India from a Developmental and Mental Health Perspective*

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**Abstract**

The current paper aims at evaluating the recent lowering of age of Juveniles (from 18 years to 16 years), who will be tried as adults in the Juvenile Justice System of India, from a developmental and mental health perspective. Based on the study, recommendations to promote mental health of adolescents have been presented. This research draws upon secondary sources including published articles and books on child and adolescent development and best practices in the field, Juvenile crime records of the country and newspaper articles. From a developmental perspective, adolescents are in a transition state and are coping with biological changes at this stage which makes them a vulnerable group. While cognitively they are capable of making more rational decisions, unless they are guided appropriately, they may take wrong decisions and may turn towards risk taking behaviors. The environment including parents and society plays a major role in the positive integration and development of adolescents. It is the interaction of experiences that the adolescent faces and personal factors, which determine the adjustment of adolescents in their society. Therefore, in order to reduce juvenile crimes, the country needs to urgently develop a preventive model which would reach the vulnerable group of adolescents in the country. Hence, while reducing the age may act as a deterrent, the long term solution is prevention.

Keywords: Juvenile justice, adolescent development, juvenile crimes, developmental perspective, mental health

## 1.1 Introduction

The current paper has been written in the light of the recent amendment in the JJ act wherein a landmark decision to lower the age of juveniles to 16 has been taken, in cases where the juvenile has committed a heinous crime. This amendment was made as a response to the involvement of a juvenile who was a few days short of turning 18 in the brutal rape of a 23 year old student in the national capital Delhi in the year 2012 and the increasing trend in juvenile crimes in India. There were debates and protests across the country with the punishment the juvenile received due to his age, which as per the JJ Act, 2000 was 3 years in a special home (Sec. 15 (g) of the JJ Act, Amendment, 2006). The juvenile was released recently with a rehabilitation plan which include financial assistance to set up a tailoring shop and frequent follow up (The Times of India, dated 15 December 2015).

The Juvenile Justice, Care and Protection Act, 2015 (referred as JJ Act, 2015 in this paper) came into action on 31 December 2015. This act has made amendments regarding punishment in heinous crimes committed by Juveniles. At the same time it has put forth a progressive and child friendly rehabilitation plan, especially for the juvenile who is 16 years and above. These Sections are mentioned below:

1. Sec. 15(1) In case of a heinous offence alleged to have been committed by a child, who has completed or is above the age of sixteen years, the Board shall conduct a preliminary assessment with regard to his mental and physical capacity to commit such offence, ability to understand the consequences of the offence and the circumstances in which he allegedly committed the offence, and may pass an order in accordance with the provisions of subsection (3) of section 18 (Juvenile Justice Care and Protection Act, 2015)
2. Sec. 18(3) Where the Board after preliminary assessment under section 15 pass an order that there is a need for trial of the said child as an adult, then the Board may order transfer of the trial of the case to the Children's Court having jurisdiction to try such offences. (Juvenile Justice Care and Protection Act, 2015)

When we say that the child will be tried as an adult, developmentally it implies that the child will be treated as if he/she were an adult which further implies an assumption that the child is functioning as an adult in the case of the crime. Legally, it means that the child will be tried as per the Code of Criminal Procedure (CrPC, 1973) of India and will serve the term as per the punishment given in the CrPC. The only difference being that the child will be tried in a children's court, the rehabilitation of the juvenile would be the primary aim and the child will be placed in a place of safety, instead of a jail with adults.

Therefore the objectives of this paper are as follows:

- a. To evaluate the appropriateness of lowering the age of juveniles to be tried as adults using a developmental perspective
- b. To put forth a few recommendations which can be used in the Indian Context

For the purpose of this paper, the heinous crimes considered are murder and rape. Further, as boys have been found to constitute 46638 of apprehensions and girls only 1592 across age groups (Fig.2.), the focus will be on boys. Secondly, as the age group



under consideration is 16-18, juveniles in this paper will refer to this age group unless otherwise specified.

## **1.2 Adolescents in India**

According to UNICEF, India is home to more adolescents – around 253 million – than any other country. It is followed by China, with around 200 million adolescents.

Adolescent population has increased from 85 million in 1961 to 253 million in 2011 (in five decades), and every fifth person in India is an adolescent (10-19 years) (Census of India, 2011)

As seen in the figures presented, India has a large group of adolescents and it is from amongst this population that some are coming in conflict with law or becoming juvenile delinquents. India is a country with variety of social, economic and health factors which according to UNICEF ‘may undermine the ability of adolescents to lead full and productive lives.’ (UNICEF, 2013)

The stages of adolescence can be divided into three phases; the first is earlier period between the age group of 10-13, the second is middle age between 14-16 years, and the matured stage is between 17to19 years. (Valarsevan & Murlidharan, 2013)

## **1.3 Juvenile crimes in India**

Juvenile delinquency as a concept is not new. It has been present in some form or the other since a long time. Juvenile delinquency or Juvenile crime as it is now known, is a term that defines the participation of a minor in an illegal act (Dey, 2014).

According to Haque (2012), there is a steady increase in the juvenile crimes against total crime in the country. ‘There was a steady decline in early 1990s, static in late 1990s and then again rose significantly in early 2000 and still increasing gradually. It has been observed that children at the threshold of adulthood -in the age groups of 16-18 years are more prone to taking up criminal activities’

There has been an increase in the crimes committed by juveniles in India between years 2004 to 2014, as seen in Fig. 1. As per the National Crime Record Bureau (NCRB), in the year 2014, juvenile crimes constituted only 1.2% of the total crimes in the country. This may seem like a small number, but when we look at the figures, they are alarming.

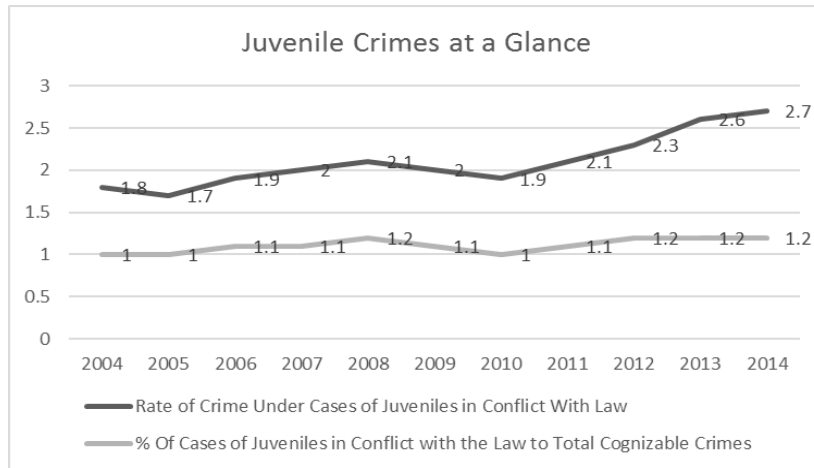


Figure 1: Graph of 2004 to 2014 crime rate from Stats of NCRB

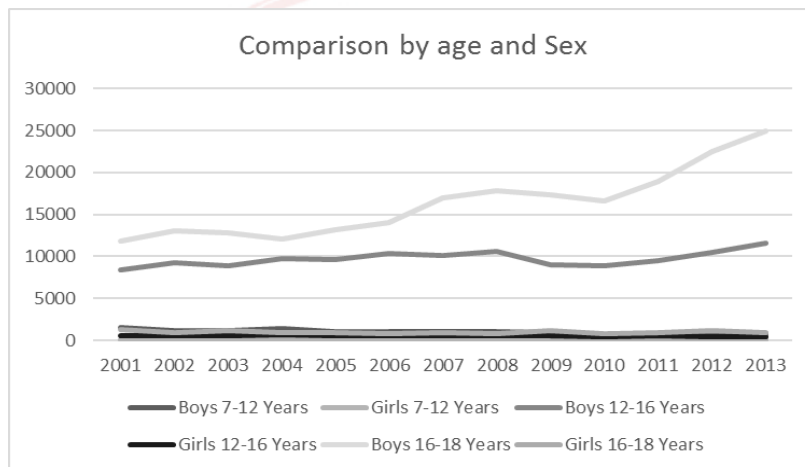


Figure 2: Rate of Crime: Ratio of Juvenile crimes to the population expressed per thousand

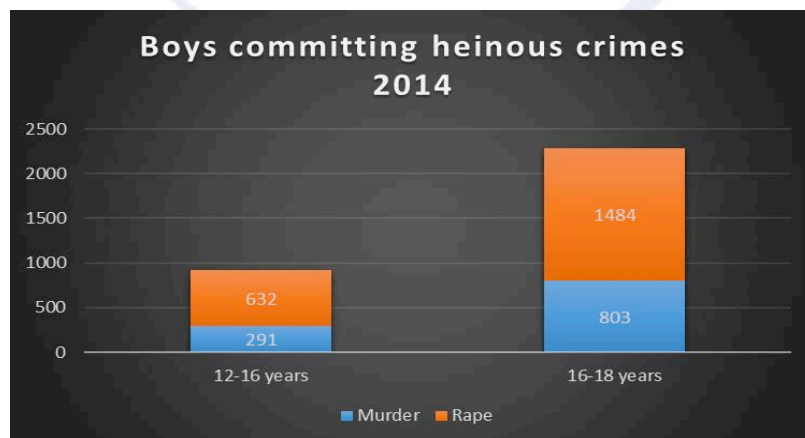


Figure 3: Boys committing Rape and Murder in the year 2014

The percentage of juveniles apprehended under IPC (Indian Penal Code) crimes was approximately 73.7% in the age group of 16 yrs. – below 18 years (31,364 out of 42,566) during 2014. In the categories of heinous crimes, boys in this age group constitutes approximately 70% of the total of all age and sex while boys of 12-16 yrs. constitute 28% of the total (Fig. 3.)

## 2. Developmental Perspective

In today's age, more importance is being given to the contexts in which the child grows, along with his individual factors (Berk, 2013). This also reflects the Nature-Nurture perspective or alternatively the individual and environment. Therefore, it is the belief of the author that in evaluating the age of the Juvenile from a developmental perspective, both the individual factors/nature and the environmental factors are important to understand the problem holistically.

According to Steinberg (2007), "Adolescents, on average, engage in more reckless behavior than do individuals of other ages" and are "biologically driven" to risk-taking, including criminal offending (as cited in Brown & Males, p. 4)

Adolescence is often referred to as a period of transition and "parents play a significant role in the developing of their physical and psychosocial changes" (Valarselvan & Murlidharan, 2013). It is indeed a vulnerable period characterized by the physical changes including hormonal changes, changes in personality and social relationships. It is as Erikson stated, the stage of identity versus role confusion. The way the society including parents, school, neighbourhood respond to the child that will determine what identity the adolescent will assume. The successful transition occurs when the adolescent has had fruitful interactions underlined with encouragement and nurturance (Erikson). This emphasis on the experiences with the society is important when we consider juveniles, so that one may look into their experiences in the society.

Most adolescents are very likely to engage in risk taking behaviours or anti-social behaviours. According to Scott & Grisso (1997), the tendency to engage in anti-social behavior which is typical in this developmental phase is reflected in their criminal activity. This tendency reduces with maturity. The peer group at this age is one of the important factors that influence the shaping of the adolescent mind. Adolescents may be inclined to follow their antisocial peer who according to them seem to have attained adult like ways (as cited in Scott & Grisso, 1997, p145)

Cognitively speaking, they are now able to analyze situations logically in terms of cause and effect and to entertain hypothetical situations and use symbols, such as in metaphors, imaginatively (Piaget, 1950). Although there are marked individual differences in cognitive development among youth, these new capacities allow adolescents to engage in the kind of introspection and mature decision making that was previously beyond their cognitive capacity (American Psychological Association, 2002)

While it is true that adolescents have developed the capacity, there is a need for some form of guidance or social maturity that is required in order to be able to put to use their capacities at the right time which differentiates them from adults. When it comes to making real life choices, adolescents may lack experience in general and efficiency in processing information (Scott & Steinberg, 2008). Further, according to some studies of the brain processes adolescents differ from adults in the way they process information. (Arredondo, 2003). Adults use their frontal cortex (the center for higher order thinking) while adolescents process emotionally charged decisions in the limbic

system (the seat of emotions). According to Arredondo (2003), ‘chronological age is a poor index of neurobiological and emotional maturity’.

## 2.1 Environmental factors

As stated earlier the environment also plays a significant role in the creation of juveniles who come in conflict with law. While adolescence is a time of tremendous growth and potential, it is also a time of considerable risk during which social contexts exert powerful influences (UNICEF). Sharma et al. (2009, p. 69) divided the factors influencing children’s delinquent behaviours into individual and environmental factors. The individual factors include personality traits like submissiveness, defiance, hostility, impulsiveness, feeling of insecurity, fear, lack of self-control and emotional conflicts while situational factors may be attributed to family, companions, movies, school environment, work environment etc.

The socioeconomic situation of the adolescents need to be taken greater account of when looking towards dealing with such challenges. According to Johnson & Tim, (2015), broken homes, large families, low income, parental incarceration, etc., have been shown to increase delinquency rates.

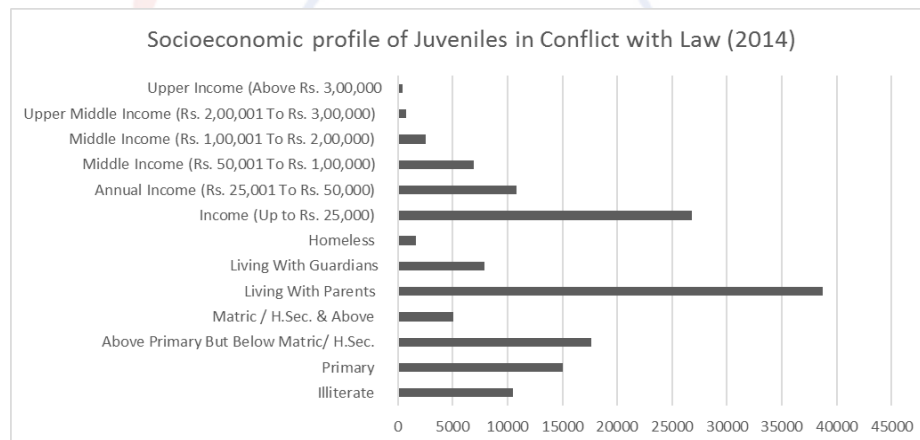


Figure 4: Socio-economic profile of Juveniles in conflict with law, 2014 (Source: National crime Records Bureau (NCRB), India)

Out of total juveniles apprehended (48,230), 10,530 juveniles were illiterate, 15,004 juveniles had education up to primary level and 17,637 juveniles have above primary but below matric/HSC level education during 2014 accounting for 21.8%, 31.1% and 36.6% of total juveniles apprehended respectively during 2014. Out of 48,230 juveniles apprehended, 80.2% juveniles were living with parents (38,693) and 3.4% were homeless (1,632) during 2014. A large number of juveniles (55.6%) belonged to the poor families whose annual income was up to `25,000 only (NCRB, 2014)

One of the important causes in the Indian scenario is the changing traditions. According to Sharma et al (2009), the problems of juvenile delinquency in the developing world are more challenging considering the process of development. According to them, development has brought about a ‘social upheaval’ which has changed the traditional ways of life. The social control system that served as a preventive measure has given way to antisocial activity. It is interesting to note that in a study carried out in the year 1978 it was found that, several socio-economic features

of Indian society, such as the interpersonal ties of family and the social requirements of an agrarian-scarcity economy acted as protective factors against delinquency (Hartjen, 1982). This study demonstrates that the changing socio-economic fabric has a role to play in juvenile delinquency.

A large number of apprehended juveniles (80.2%) were living with parents as per the figures, this leads one to think of the possible family dynamics leading children to come in conflict with law. According to a report, Juvenile delinquency in India is increasing specially in the children of lower economic groups who live in the slums. These children come in contact with antisocial elements in the absence of their parents who are out of the homes for jobs and are not available to provide care and nurturance. (Tiwari, 2014). According to the World Youth Report, United Nations (2003) children parental supervision is an important factor, 'children who receive adequate parental supervision are less likely to engage in criminal activities. Dysfunctional family settings—characterized by conflict, inadequate parental control, weak internal linkages and integration, and premature autonomy—are closely associated with juvenile delinquency' highlighting yet again the importance of the family environment in shaping juvenile delinquents.

Another cause for concerns is the age group of 7 to 12 and 12-15, they are the preadolescent and early adolescent groups. As per the latest NCRB (2014) figures, children in the age group below 12 committed 19 murders and 23 rapes while the highest figures were in theft (249) these figures are for both boys and girls. What happens to them after they are let off or are placed in special homes? The maximum period they can stay for is 3 years, which are crucial years of the child who is at the prime formative years. At such an age, family, community and a sense of belonging are important to foster. Studies have reported that children in this age group have higher chances of becoming adult criminals. According to Scott & Grisso (1997), 'Youths who offend at a younger age (and who are thus less mature and less culpable) may be more likely to become adult career criminals than teens who first initiate even serious antisocial behavior in mid-adolescence or later.' Thus, there is a more pressing need to focus on this age group of children and to carry out research in recidivism amongst children in conflict with law in India.

### **3. Mental health perspective**

Keeping in mind a mental health perspective, this paper looks at the provisions in the act, for the pre-trial, trial and rehabilitation of the juveniles (16 and above) who are found guilty of crime. The laws under the new Juvenile justice act, recommends the following for trial of a child as an adult:

1. Assessment of child (Section 15(1) of the JJ Act, 2015)
2. Trial in children's courts (section 18 (3) of the JJ Act, 2015 )
3. Rehabilitation in the place of safety following which the child may be transferred to Jail after 21 years of age. (Section 19 (3) of the JJ Act, 2015)

The concerns arising here are the lack of infrastructure which has led to the failure in efficient implementation of the previous act. There are few qualified counselors and psychologists across the country. The National Commission for Protection of Child Rights(NCPCR), (Ministry of Women and Child Development, India)in their recommendation stated that there is a general lack of institutional infrastructure and trained manpower. Further, assessment of children poses a problem as there is no

standard to determine such facts compounded by the lack of trained professionals (NCPCR). Children Courts have not been set up in most districts which further lead to the question about the appropriate implementation of the Act, which in turn may expose the juvenile to an adult justice system. For the rehabilitation, the Act has mentioned generic techniques, and is depending yet again on the professionals. However, there are no evidence based practices for the rehabilitation of juvenile delinquents in India. Thus, while, the provisions in the Act appear to be well thought of, the loopholes may pose a threat to the overall rehabilitation of the juvenile offenders in the country which is a cause of concern.

#### **4. Way Forward: Prevention**

Considering the rise in crimes committed by adolescent who as this paper has shown, are a vulnerable group, and keeping in mind the possible loopholes in the implementation of the JJ Act, 2015, there is a need to focus on prevention. Further, as per population predictions, the youth population is set to rise. According to Jayaraman (2012), the youth population of 15-34 is likely to increase to 464 million by 2021. The population is continually concentrating in urban areas. This trend is set to continue, according to Bhat, 2001. According to his projection, 'By 2025, about 40 percent of India's population is expected to be urban.'

Juvenile crime in urban areas in India rose by 40% between 2001-10 (DNA, India). Interestingly, Jayaraman states in her paper that the youth population accounts for 35 percent of the urban population in India.

According to WHO, 2006; Guerra, 2005; Schweinhart, 2005; Levitt, 1998; (in UNODC & World Bank, 2007, p. 61). "the earlier the investment in an individual, the greater the chance that violent behaviours can be prevented through adulthood, and the more cost effective the investment" (cited in UN Factsheet on Juvenile Justice). The Riyadh Guidelines (United Nations, 1990) also emphasize the role of prevention to deal with Juvenile delinquency. Therefore, this paper would like to point towards the prevention model in order to deal with this situations

##### **4.1 Recommendations**

One way would be to identify 'at risk children' in the urban slums and rural areas. The role of NGO's will be of importance here. Creating a profile of identified children focusing on their risk factors and protective factors. This followed by an attempt to work on the protective factors by working with the family and community could be planned. Some of the ways to increase protective factors suggested in the New York State Juvenile Delinquency Prevention Program (NYJDPP) (2000) are 'use of mentoring programs, organized family activities, community volunteer opportunities, and academic tutoring.' The need to work on protective factors is that it helps develop the child's resilience. Some of the other ways recommended by them are enhancing the living environment through inculcating positive interactions within the family and society, encouraging on strong bonds within the family and also creating attachment in the community (Fact Sheet, NYJDPP).

Some of the recommended practices are as follows:

### 1. Working with the family

The family plays an important role in prevention of juvenile delinquency. Family is the first institution of socialization. In India, the family is an important institution much into adult life. According to UNICEF, in the United States, when parent management training was provided to the parents of problem children aged 3-8 years, the children fared far better than those in a control group assigned to a waiting list for the program. According to Greenwood (2008), programs that put emphasis on family interactions, and providing skills to the adults to supervise and train their children are more successful.

### 2. Community based programs

Prevention programs can reach the community in various ways. The Community could focus on keeping the adolescent population away from the juvenile justice system. (Greenwood, 2008). Community based programs like recreational centers, support services to respond to problems of children and family, community development centers are recommended by the Riyadh Guidelines. Monthly meetings with at-risk children and families could be one other way (Greenwood, 2008). The children who are released after trial, or other at risk children may be involved in community work with some reinforcement provided for their work.

### 3. Life skills and recreational activities

Recreational activities are a way to engage the youth. This is also emphasized in the Riyadh Guidelines: "A wide range of recreational facilities and services of particular interest to young persons should be established and made easily accessible to them". According to UNDESA (2003) in the United States introduction of basketball programs for adolescents resulted in 60 per cent decrease in crime rate (cited in UN Fact sheet on Juvenile Justice)

## 5. Conclusion

There is an increasing trend in the crimes committed by juveniles in India. It is clear from various research studies as well as theoretical perspectives that the age group of 16-18 is also a period of adolescence and hence a vulnerable period. Adding to that, the environmental factors, and socio-economic factors play a significant role in the forming of a child who comes in conflict with law. Therefore, while lowering the age may act as a deterrent, it is not developmentally appropriate to try a child in the age group of 16-18 years as an adult.

However, the act has taken these two into account and it now depends on the implementation of the provisions of the act that children in this age group receive full justice keeping in mind their developmental level. For this to happen there would be tremendous effort required by the states to develop infrastructure and human resources to provide the services, without which the child could be exposed to negative experiences. The population of adolescents is set to rise, and with the increasing trend of juvenile crimes it is likely that there will be an increase in juvenile crimes in the current context of urbanization and modernization. These, and the fact that concrete data shows that majority of juveniles come from low income families, there is a need for the country to take up a prevention approach more seriously and research needs to be conducted on the most suitable and effective prevention strategies. The method of identifying risk and protective factors after forming a

profile of the child would help in planning appropriate interventions. As the family is an important element, especially in the Indian Context, one of the methods that can be tested is the functional family therapy. Therefore, the two pronged approach that is the need of the hour are 1. Strengthening of the Infrastructural and human resource for the effective implementation of the Act, 2. Looking at prevention approaches specifically targeting at risk children (including children in the age group 7-12 years)





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### ***Corruption: Its Representations and Psychology in Indonesia***

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#### **Abstract**

Corruption has undermined the sense of justice of the society in various parts of the world, and it has to be admitted that corruption involves contested meanings. The problem is that there is no study about the meaning of corruption for Indonesians. Often the understanding of the community about “corruption” is simply assumed because we have law and regulations regarding this practice. This study aimed to show social representations of corruption, by digging answer to the main question, “If you hear the word ‘corruption’, what comes first to your mind?” This study was conducted throughout the year 2013-2015, involving people of the four provinces, namely West Kalimantan, North Sumatra, North Sulawesi, and Jakarta, with a total of 2,104 samples that were recruited through convenience sampling technique. Results of this study showed that the most fundamental meanings in society are (1) Related to others; (2) Stealing; (3) Self-interest; (4) An action; and (5) Country. This study contributes to the literature of psychology corruption and could be transformed into a psycho-social intervention to create a society that is free from corruption.

Keywords: psychology of corruption, representation, stealing, meaning, self

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## Introduction

Corruption is a moral and legal issue that has caused not only financial loss but also damage to all aspects of life, including cultural and political life. The most frequent question is “What kind of corruption do we try to prevent and eradicate?” The question is concerned with a definitional issue of corruption. In fact, corruption has lots of definitions, and each of it contains its own strengths and weaknesses. Pellegrini (2011), for example, showed that (1) the definition of corruption in a moral perspective would have “a discordancy” if it turns out that it generates social benefits; (2) the definition of corruption in a legal perspective could change according to the political interests of the authority; (3) the definition of corruption in a social science perspective would be “chaotic” if interfered with moral aspect, for social science is only concerned with behavior.

Studies in corruption in the world are marked with a number of debates, for example between the moralist’s view and the revisionist’s (Farrales, 2005). The moralists condemn corruption because they believe it harms the welfare of society socially, economically, and politically. Criticism to the definition is considered as biased to the Western tendency, being insensible to cultural differences. For example, for the Western social standard, the nepotistic-relative practice is considered corruptive, but not every society sees that way. Some societies seemingly accept and implement corruptive living as rooted in implicit awareness or tacit knowledge. Particularly in Indonesia, as a historic and cultural origin, there are (1) a tribute-giving culture to the Sultanate or authorities (for the purposes of a job promotion or passing a civil servant screening test), and (2) no rigorous specialization in social roles. While the regional heads (holding political power) serve well as judges, chieftain, warlords (giving social, economic, and legal functions); it is problematic when they work in a system that stresses impersonality (Pryhantoro, 2016). For the revisionists, corruption is not necessarily harmful. Instead, it is an inevitable fact, functional in the adjustment process, and even beneficial in improving the efficiency of the bureaucracy. The perspective is still held in Indonesia, as corruption was ever mentioned by Fadli Zon, Vice Chairman of the Indonesian House of Representatives, as “the lubricant of development” (Khafifah, 2015).

A number of debates still prevail regarding the definition of corruption. One of which is that between public opinion-based definition and legal definition (Farrales, 2005). The public opinion-based definition emphasizes the fact that the definition of corruption should be determined by the public norms and opinion, as what is considered corruptive in a society is not always the same in another. The legal definition highlights the breach of law by a public official for own advantages. If the official has not breached the law, or if there is not any behavioral regulation breached, then the corruption does not occur.

In Indonesia, there is a book that describes the definition of corruption comprehensively, which is “*Memahami Untuk Membasmi: Buku Saku Untuk Memahami Tindak Pidana Korupsi*” or “*Understanding for Eradicating: A Pocket Book to Gain Insight on Criminal Act of Corruption*” (Komisi Pemberantasan Korupsi, 2006). According to the book, based on the Law of the Republic of Indonesia No. 31 Year 1999 ref. Law of the Republic of Indonesia No. 20 Year 2001, there are seven categories of criminal act of corruption, namely (1) the state financial

loss; (2) bribery; (3) embezzlement in office; (4) extortion; (5) manipulation; (6) conflict of interests in procurement of goods and services; and (7) gratification. The seven categories also apply to the prevailing corruption practices at private sectors (non-public). In this context, Pope (2008) reminded that an individual or a group of individuals work at private sectors could conduct corruption by manipulating the organization's legal status or its reputation to misuse the public trust under the transactional circumstances with public institutions or public officials, which, in fact, brings adverse impacts to the public interest, but benefits their own personal interests. Wijayanto (2009) stated that the Indonesian Republic regulation includes actions like embezzlement. Although not involving public officials or institutions, it can be categorized as corruption as it indirectly harms the public by reducing the inland revenues in terms of taxes. The extended definition is critical due to the fact that although bribery at the private sectors seems irrelevant with the political system of a country and does not as well occur at the public settings, it could, however, fuel the corruption culture which is later generalized into many aspects of society. Hence, to gain insight on the corruptive behavior, it is necessary to consider first the essence or substance of the act, not only its behavior or its formal regulations.

In short, the definition of corruption is subject to criticism, evolved along with the corresponding symptoms, and contextualized according to the study field (Farrales, 2005; Pellegrini, 2011). Examining a variety of corruption definitions in the history, the author sees it necessary to conduct a particular study on corruption definitions prevailing on the minds of Indonesian people. It is important to recognize a variety of perceptions developing in the society on the definition of corruption, as through perceptions human make understanding and perceive the world in a coherent, logical, and meaningful way, as well as predict behavior in accordance with the established perception (Moskowitz, 2005). The information about these perceptions is very important to design an intervention scheme to prevent and eradicate corruption.

This present study aims to obtain a collectively definitional representation, instead of individually cognitive representation, of corruption (Verheggen & Baerveldt, 2007; Wagner & Hayes, 2005). The collective representation is important as corruption is in fact "a site for contested meaning" (Pavarala, 1993, p. 145). Theoretically, the study is also beneficial to develop a corruption-psychology theory with typical characteristics of Indonesia. The urgency of the benefits becomes prominent as there has been no study about the Indonesians' perception on corruption so far. Often, the understanding of the community about "corruption" is merely assumed because we have the law and regulations regarding this practice.

## **Methods**

The number of participants in this study was 2,104 persons (48% males, 52% females), recruited by using the convenience sampling technique. The demographic and professional backgrounds were as follows: 42.3% were from West Kalimantan, and of Catholic High school students; 39.2% were from Greater Jakarta, and of company employees and undergraduate students (mixed religion and ethnicity); 12% were from North Sumatera, and of Catholic high school students (Catholic school); and 6.5% were from North Sulawesi, and of Preachers of Protestant Churches. The age mean of participants was 22.29 years old with the standard deviation of age was

9.91 years. The education backgrounds ranged from junior high school level to master's degree.

Instruments used were questionnaires with only one open-ended question, which is "If you hear the word 'corruption', what comes first to your mind?" The data of the study was calculated by using IBM SPSS for text analysis.

## Results and Discussion

First of all, the author conducted an analysis of words using IBM SPSS for text analysis. Based on the frequency the word (in Indonesian) that emerged, the vast majority were (1) People ("orang"; but it is not yet clear, whether it referred to self or others), (2) money ("uang"), (3) ownself/personal ("sendiri" atau "pribadi"), (4) steal or take ("mengambil"), (5) harmful ("merugikan"), and (6) country ("negara") (see Figure 1). The entire response is derived from 1,314 (or 62.45%) of the 2,104 samples; or more than half the number of samples. The first finding of the study revealed that in the minds of Indonesian people, the object of corruption is money, neither mentality nor time.

Category	Code	#Descriptors	#Responses
All Records		-	2104
Uncategorized		-	409
No concepts extracted		-	96
sendiri+<>	3 <sup>rd</sup> : ownself	13	163
uang+<>	2 <sup>nd</sup> : money	4	263
untuk+<>		9	149
korupsi+<>		2	508
yang+<>		1	668
pribadi+<>	3 <sup>rd</sup> : ownself	17	95
negara+<>	6 <sup>th</sup> : country	16	72
kita+<>		27	47
merugikan+<>	5 <sup>th</sup> : harmful	10	74
dengan+<>		23	50
rakyat+<>		24	42
dalam+<>		28	34
bukan+<>		12	39
atau+<>		19	40
tindakan+<>		7	54
orang	1 <sup>st</sup> : PEOPLE - ownself / others?	215	494
mengambil+<>	4 <sup>th</sup> : take / steal	6	153
tidak+<>		5	240
lain+<>		11	89
milik+<>		15	56
dilakukan+<>		14	32
baik+<>		26	30

Figure 1: Words extracted from research participants' responses ( $n = 2,104$ ).

To obtain more meaningful responses, the author further analyzed the phrases. Apparently, based on the frequency response, the top five concepts of corruption for Indonesian people are (1) related to others ("harmful to others", "the rights of others"); (2) stealing; (3) self-interest; (4) an action; and (5) country (see Figure 2).

- orang lain + . (94) 1<sup>st</sup>: others
- mengambil hak + . (84) 2<sup>nd</sup>: take/steal the right
- lain + . (64)
- korupsi + . (55)
- mengambil sesuatu yang bukan + . (51) 2<sup>nd</sup>: steal something that doesn't belong to
- hak orang lain + . (48) 1<sup>st</sup>: the right of others
- mencuri + . (47) 2<sup>nd</sup>: stealing
- miliknya + . (39) 3<sup>rd</sup>: belong to self
- sendiri + . (39)
- pribadi + . (32) 3<sup>rd</sup>: ownself/personal
- korupsi adalah tindakan yang + . (30) 4<sup>th</sup>: action
- tidak + . (27)
- korupsi adalah + . (26)
- negara + . (26) 5<sup>th</sup>: country
- orang + . (26)
- haknya + . (25)
- mencuri + . (25) 2<sup>nd</sup>: stealer
- dan merugikan orang + . (25) 1<sup>st</sup>: harmful to others
- hak kita + . (22)
- hal yang tidak + . (22)
- merugikan orang lain + . (20) 1<sup>st</sup>: harmful to others
- mengambil + . (19) 2<sup>nd</sup>: stealing
- milik kita + . (19)
- korupsi adalah suatu tindakan + . (18) 4<sup>th</sup>: action
- uang + . (18) 6<sup>th</sup>: money
- masyarakat + . (17)
- milik orang lain + . (17)
- diri sendiri + . (16)
- tidak baik + . (16)

Figure 2: Phrases extracted from research participants' responses ( $n = 2,104$ ).

The first concept: **Corruption is related to others**. The concept might be relevant with an influential Confucian teaching in the East, in Asia, that states that “The value or importance of virtues such as truth, honesty, fairness, and rationality are subject to or depend upon the quality of human relationships” (Moon & McLean, 2003, p. 306). However, when in Korea the concept means that rationality and justice may be defeated by “the value of friendship or nepotism” causing corruption (hence corruption has a positive connotation) (Moon & McLean, 2003), this study found a different interpretation to the collectivistic Indonesian people. They view that corruption can cause degradation in others, and therefore, just based on truly consideration of others, corruption gained a negative connotation.

All this time, the most common and acceptable definition of corruption is “the abuse of entrusted power for private gain” (Transparency International, 2016). In this definition, the most notorious one is personal interest. However, this study found that the most obvious things of corruption in the minds of Indonesian people are the consideration towards others, the loss inflicted on others due to his/her actions, and the concerns over the rights of others. The finding was further also supported by research in other part of the world, in Europe, by Pisor and Gurven (2015), which showed that there is a negative correlation between one's primary geographic identity and his/her permissibility towards corruption by controlling variables of gender, age, education, household dependency, and belief in God. The stronger the geographic identity (e.g. country vs. local) held by someone, the less likely he or she becomes permissive towards corruption. The assumption is that the corruption actors consider the number of people (kin, authorities, members of his/her super-ordinate group) impacted by his/her actions. Pisor and Gurven described the finding by using evolutionary psychology, in which the history of natural selection has allowed

someone to be able to anticipate emotions of other people who shared the same identity with him or her.

The second concept: **Corruption is stealing**. The use of the term “stealing” as a synonym of corruption is also used by Wedeman (1997, “stealing from the farmers”), O’Neil (2012; “stealing from the city”), and, a bit metaphoric, Meier and Griffin (2015, “stealing the future”). In the original definition, corruption is not identical to stealing. Stealing is not corruption if not entailing the issue of public power abuse. Nevertheless, this study revealed that in the minds of Indonesian people, corruption is similar to stealing. In fact, there were others who gave a similar statement (Agbaje, as cited in Odunayo, 2015):

“Ultimately, every act of corruption is an act of stealing. There is no question about it. There is no moral or ethical difference between them. Both are criminal, immoral and anti-social acts and nobody should attempt to make one look lighter than the other. People who commit either should be dealt with seriously.”

However, stealing can be separated from corruption. Stealing is more fittingly a synonym of theft, which means “taking any property by a person with no right to it ... [e.g.] steals aid packages from a truck is committing theft but not corruption” (UNEP, 2004, p. 14). Corruption occurs if there are stealing actions over something (money, products, or other valuable items) mandated or entrusted to him or her. Hence, stealing is wider in scope than corruption, and therefore, this kind of understanding, though less accurate, is, in fact, more advantageous in practice: corruption prevention and eradication. This is because, actually, not all stealing actions are corruption, but all corruption is definitely stealing actions.

In Islamic religious laws, the difference between stealing and corruption is also highlighted. The penalty for stealing is hand cutting (if the stolen item is minimally worth 1.07 grams of gold), whereas the penalty for corruption is to pay money, or fines, or to be humiliated in public, or even to have a corporal punishment (whipping, or prison) (KonsultasiSyariah, 2012). The reasons are: (1) the experience of being stolen is very inevitable, but the experience of being betrayed for a mandate/trust given to someone is avoidable (for example, by not giving the mandate/trust); (2) Corruptors do not steal money directly from the treasury, but do it through the position granted to him or her; and (3) the corrupted money is not within the proper custody (KonsultasiSyariah, 2012). Obviously, there are still many Indonesian people who cannot clearly tell the difference between corruption and stealing, and thus, there comes an opportunity for education.

The third concept: **Corruption is associated with self-interest**. As discussed before, the most common definition of corruption at first stresses on “private gain”. However, this study found that “self-interest” is in the third concept sequence which is mostly remembered and understood by Indonesian people. One definition of “self-interested behavior” is “actions that benefit the self and come at a cost to the common good” (DeCelles, DeRue, Margolis, & Ceranic, 2012, p. 681). Based on the definition, though it prioritizes self-interest, the consequence of such priority to the loss of common good (equals to “other people” in the first concept) is emphasized as its counterpart. Machiavelli (as cited in Robet, 2015) stated that the greatest destruction



caused by corruption is not at first on the law, but on the common good, as the common good is falling, then the foundation and atmosphere for healthy and good politics is falling too; as a result, patriotism and love for motherland (as opposing to the priority of “private gain”) are weakening. It is obvious now that Indonesian people do not care about the issue of power abuse as it apparently occurs in corruption. What matters to them is the fact that corruption has harmed them, and stolen something from them.

The fourth concept: **Corruption is an action**. This means that corruption is not merely a behavior. Borrowing the concept of sociology, an action involves a sense of agency; in which the actors commit an activity based on intention, conscious process, subjective meaning, or deliberation (Blunden, 1999; van der Wal, 2012). In the recent psychology research, an action apparently can be equivalent to “motivated behavior”, in which the behavior performed by someone includes orienting attention and valuation processes (Suri & Gross, 2015). Hence, there are meaningful behaviors – called action – and mere behavior (not always being driven by a purpose or meaning) – called behavior.

Therefore, according to the study results, for Indonesian people, there is no corruption which is free from its meaning-making of the actors. There is no such a “forced corruption”. First, we need to understand what the forced corruption means. The following is the description:

“What is significant in Simis’ argument is the idea of forced corruption for both those who give bribes and those who take them .... Structural (both economic and cultural) forces or constraints of the Soviet over-controlling centre resulted in flourishing *blat*: life became impossible unless the rules were broken .... Despite the extent and frequency of *blat*, however, it received little formal acknowledgment. When publicized, it was treated as deviant acts of atypical people. In practice, the reverse seemed nearer to truth - in many jobs indeed it was often abnormal not to be involved in *blat*” (Ledeneva, 1998, p. 46).

Some theoretical positions believe that corruption is truly an institutional and political issue that requires a structural solution (Mbaku, 2010; Sandoval-Ballesteros, 2013). Related to the third concept discussion, a corrupt system can be fought by individuals by not granting a mandate or trust to the system, or by willfully establishing the system reform. Those individuals also need to be strengthened and empowered to avoid “structural imbalances of social power” (Sandoval-Ballesteros, 2013, p. 60), so that the corrupt system would undergo a disincentive or punishment, instead of positive reinforcement.

Nevertheless, the result of the present study matched perfectly with the situation in the Soviet community as described before by Ledeneva (1998). Public through its statement (either read or heard by other people) reveals that corruption is an abnormal action of someone, which cannot be attributed as a mandated thing given by its social structure. In this case, there are two possible explanations. First, when the questionnaires are filled in, there is a bias of social desirability. Whatsoever, there is no such a “forced corruption”. The statement that there is a “forced corruption” could damage somebody’s moral self-concept. An individual always has freedom to choose in joining or leaving a corrupt system. Second, Indonesian people have not fully

realized the effects of structural forces to corruption. They think that an action by an individual is still considered the only entity responsible for his or her corruption behavior, for prevention of corruption, and corruption eradication. The thing is, if we accept the fact that the prevailing corruption is due to forcing by a social structure, how to decide the appropriate method to judge a situation that there is “forcing elements”, “excessive or extreme social pressures” (Upadhyay, 2003), or “entrapment” (remember the social trap concept of Platt, 1973) to do corruption.

The fifth concept: **Corruption is associated with the country.** It can be understood as the phrase “the amount of state loss” is most frequently heard when a criminal act of corruption is publicized by the press. Corruption gives a bias to a country’s focus in its development (The World Bank, n.d.), and ruins a government’s credibility in implementing democracy (Upadhyay, 2003). The fifth concept shows that Indonesian people have an awareness that corruption is an issue that is wider at social rather than interpersonal or community levels. However, as clearly seen, the awareness is still ranked below the association of corruption with other-selves and the self, as shown from the first concept to the fourth. It may be because that “the state” is still a more abstract concept (having a higher psychological distance; see also Sneffjella & Kuperman, 2015), and “people” and “stealing” are a more concrete concept for Indonesian people who are the participants in this study.

### Conclusion, Implication, and Limitation

This study concludes that there are typical concepts of corruption prevailing in the minds of Indonesian people, which are (1) related to other people; (2) stealing; (3) self-interest; (4) an action; and (5) country. This study is the first research in Indonesia to identify meanings of corruption which are mostly understood by Indonesian people. A number of parties have tried to do the mapping<sup>1</sup> (see Figure 3), but it was based more on logical speculations or literature reviews, rather than empirical research.

immoral shady  
 blackmail laundering untrustworthy  
 embezzlement mercenary bribery deception  
 shameful **Corrupt Actions &** cheating  
                   **Behaviors Are:**                  debase  
 shady                  un-ethical rotten sordid  
 cheating                  tax evasion  
 exploitation                  fraudulent  
 dishonest

Figure 3: An example of considered concepts of corruption (Barnett, 2010).

<sup>1</sup> E.g., <https://artistsagainstcorruption.files.wordpress.com/2010/03/microsoft-powerpoint-apresentacao1-02032010-165719.jpg>

For the practical implication, the findings of the study can be used as the valuable material for education or anti-corruption campaign. Anti-corruption advertisements have so far emphasized at least several theme categories (see Figure 4): (1) Courage and/or honesty, for example “*Berani Jujur Itu Hebat / Being Dare to be Honest is Great*”<sup>2</sup>; (2) Crime, for example “Corruption: it’s a crime”<sup>3</sup>; (3) Disease, for example Corruption as “cancer of society”<sup>4</sup>; Corruption as the “worst disease”<sup>5</sup>; “Corruption is deadly”<sup>6</sup>; (4) Self-efficacy, for example “You can stop corruption”<sup>7</sup>; (5) Power, for example “Power tends to corrupt, and absolute power corrupts absolutely”<sup>8</sup>; and (6) Development, for example “Zero Corruption, 100% Development”<sup>9</sup>.



Figure 4: Themes of anti-corruption messages.

<sup>2</sup> E.g., <http://civicara.com/wp-content/uploads/2013/12/19/Gedung-KPK.jpg>

<sup>3</sup> E.g., [https://www.unodc.org/images/frontpage/stories/2015/February/corruption\\_crime.jpg](https://www.unodc.org/images/frontpage/stories/2015/February/corruption_crime.jpg)

<sup>4</sup> E.g., <http://image.slidesharecdn.com/stopcorruption-130131083738-phpapp02/95/stop-corruption-3-638.jpg?cb=1359621633>

<sup>5</sup> E.g., <https://s-media-cache-ak0.pinimg.com/236x/b8/1d/4d/b81d4d9e93d7f5281973b33ed112f1ad.jpg>

<sup>6</sup> E.g., [http://static.tumblr.com/33a31229e94dd62b712ae8e4b3a4cca1/yw0t55y/u8qmirvjj/tumblr\\_static\\_billboard\\_corruption\\_kills\\_uganda.png](http://static.tumblr.com/33a31229e94dd62b712ae8e4b3a4cca1/yw0t55y/u8qmirvjj/tumblr_static_billboard_corruption_kills_uganda.png)

<sup>7</sup> E.g., [http://www.anticorruptionday.org/images/actagainstcorruption/Previous\\_campaigns/corr\\_logo\\_YOUCANSTOPCORRUPTION.jpg](http://www.anticorruptionday.org/images/actagainstcorruption/Previous_campaigns/corr_logo_YOUCANSTOPCORRUPTION.jpg)

<sup>8</sup> E.g., <http://www.fggam.org/wp-content/uploads/2013/10/power-and-corrupction.jpeg>

<sup>9</sup> E.g., <http://www.onuitalia.com/eng/wp-content/uploads/UNCAC2.jpg>

A number of campaign themes presented above have benefits to some extent. However, according to the present study results, the effective anti-corruption messages (being able to persuade as compatible to the minds of common people) are those that emphasize the destructive impacts of corruption towards others, for example, “With Corruption Everyone Pays”<sup>10</sup> (see Figure 5).



Figure 5: An example of the most effective message of anti-corruption (based on this present study).

Limitations of this study is that it did not recruit the sample comes from all major islands in Indonesia, as well as more than half of the participants are young people who are educated in Catholic schools. Therefore, the generalizability of these study results might be limited. Further research could increase the number of samples and conduct multilevel analysis to the discovered representation.

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<sup>10</sup> E.g., <http://beijingcream.com/wp-content/uploads/2013/03/With-corruption-everyone-pays.jpeg>

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***Women's Needs related to Obstetric Services: Viewpoints of Mothers of Children with Disabilities in Japan***

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**Abstract**

The overall aim of the present study was to investigate needs in obstetric services among mothers of children with disabilities in Japan. This paper reports on the results obtained midway through the survey, also identifying the needs of these mothers through free descriptions. Corporation with parents associations of children with disabilities throughout the Japan, self-administrated questionnaire has been distributed mothers of children with disabilities since January to March in 2016. The free descriptions obtained showed that the needs of these mothers could be divided into three: needs for diagnosis and information about disabilities, needs for networks and hope, and needs for sensitivity through words and deeds. I suggested that medical staff providing obstetric services give adequate information about possible disability; act as mediators, introducing mothers to counselors, peer groups, and social support; avoid insensitive words and deeds; and use positive terms when talking to these mothers.

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## Introduction

The experiences of pregnancy and childbirth are considered important events in a woman's life. Especially, memories related to pregnancy and childbirth may be painful to some mothers of children with disabilities. I previously interviewed mothers of children with disabilities in Japan, and found that most of them had had unpleasant experiences at obstetrics and gynecology hospitals, and long-term difficulties with forgetting such memories (Kimura, 2012; Kimura & Yamazaki, 2013). In addition, low levels of maternal satisfaction with childbirth were related to high levels of psychological distress (Sato, Kato, Ito, Gu, & Kakee, 2008) and a higher postpartum stress response (Sekizuka, 2005). Therefore, there is a need for the provision of adequate obstetric services that meet women's needs. To facilitate this, it is important to identify women's needs and consider practical implications of obstetric services. The overall aim of the present study was to investigate the obstetric-service-related needs of mothers of children with disabilities in Japan. Midway through this survey, I present a report mainly focusing on the extracted needs of the mothers, based on free descriptions.

## Methods

In cooperation with several parents' associations of children with disabilities throughout Japan, self-administrated questionnaires started being distributed to mothers of children with disabilities from January to March in 2016.

## Ethical considerations

This study was approved by the review board of St. Marianna University School of Medicine.

## Results

As of March 15, 2016, 798 questionnaires had been returned, and 265 of these were filled with free descriptions. Most mothers wrote about severe childbirth experiences and troubling issues with the diagnosis of their children, but some mothers expressed positive feelings concerning their relationships with the obstetric services medical staff. In particular, when an infant's disability can be detected during the early stages of pregnancy or delivery, the words and deeds of medical professionals strongly affect the psychological well-being of mothers of children with disabilities. These mothers' needs were identified and were divided into three categories, namely, needs for diagnosis and information about disabilities, needs for networks and hope, and needs for sensitivity through words and deeds.

### Needs for diagnosis and information about disabilities

*After the delivery, I suspected ... my baby would have Down syndrome. The doctor did not say anything about the disability, and I ... couldn't ask him..., because I was scared ... he would say "yes." I had a hard time and couldn't stop my tears. If the doctor explained ... the possibility of the disability well, I could have expressed my feelings and calmed down.  
(#70 Mother of child with Down syndrome)*

*Just after the birth, I noticed my baby's disability. I asked the doctor, but I could not get any answer. (#61 Mother of child with Down syndrome)*

These are typical claims mothers of children with Down syndrome make. These mothers needed certain explanations of the disabilities, but they could not get them. Thus, they considered their obstetricians to be intentionally hiding information about their infants' disabilities. However, although infants with Down syndrome have some distinguishing characteristics, most obstetricians might hesitate to talk about the possibility of disability because genetic testing takes some time to complete. In addition, definitive diagnosis is the role of pediatricians in Japan.

On the other hand, some mothers do learn of their infants' diagnoses at an early stage.

*Just after the birth, the doctor let me know of my baby's disability. But the doctor did not explain about my baby's condition, how to raise such a baby, [or even] what ... Down syndrome is. Thus, I was anxious during my hospitalization. (#23 Mother of child with Down syndrome)*

This description illustrated how even mothers who receive diagnosis experience increased anxiety in response to a lack of information and support. Therefore, it is important to provide not only a diagnosis, but also related information.

### **Needs for networks and hope**

*When I was 8 months pregnant, I received amniocentesis and was shocked that my baby had Down syndrome. But I felt relieved a little bit, because the pent-up feelings in my mind were lessened. I collected information about the disability and ... prayed for the birth. The nurse and the doctor told me that disability was one of the characteristics of babies and Down syndrome babies were very cute, and there were various sources of support available. I was really lucky. (#16 Mother of child with Down syndrome)*

*I believe it is important for doctors and medical staff to try to understand our sadness and encourage us by saying ... there must be a ray of hope. Whether such mothers and their families are able to have hope ... depends on the doctor. (#85 Mother of child with Down syndrome)*

*I was very happy because the doctor introduced me to the counseling system, and I could receive counseling once a week. In addition, since the doctor called the leader of the parents association for disabled children, the leader came to my house and listened to my story. (#44 Mother of child with Down syndrome/West syndrome)*

These descriptions used positive words such as "lucky" and "happy" and clearly presented how obstetric services medical staff can support mothers who are in the depths of grief following the diagnosis of their babies.

## Needs for sensitivity of words and deeds

*I was convinced of the disability of my baby because of the doctor's/nurse's attitudes. They didn't want to care for my baby. I felt that I delivered an unpleasant baby.*

*(#18 Mother of child with Down syndrome)*

*Since my breast nipples were dented, breastfeeding was a very hard task for me. My doctor said to me, "Your nipples will never be able to play the role of breastfeeding." I was so shocked, and I can't forget it.*

*(#92 Mother of child with autism spectrum disorder)*

The above comments expressed how the words and deeds of the medical staff transmit negative messages to these mothers. Although such words and deeds were unintentional, the mothers might have felt that they were denying the infant's existence or the mother's own motherhood. Thus, obstetric services medical staff need to be sensitive in their communication and interactions with mothers and infants.

## Conclusion

I conclude that women's needs (especially those of mothers of children with disabilities) related to obstetric services offered in Japan are as follows:

### 1. To obtain certain information about an infant's disability as soon as possible following the delivery.

To do this, it will be necessary for obstetric services medical staff to provide mothers with adequate information about the possible disability, explain the roles of specialists (e.g., the obstetricians and pediatricians), and offer advice for ensuring optimal mother-child conditions and interactions.

### 2. To obtain support networks and hope.

To do this, obstetric services medical staff will need to act as mediators, introducing mothers to counselors, peer groups, and social support. In addition, it is strongly recommended that staff members use positive words when talking to these mothers.

### 3. For their medical providers to avoid insensitive words and deeds.

To do this, obstetric services medical staff members need to understand mothers' difficulties and feelings, and they should be conscious of the effects their own words and deeds may have on such mothers.

Since this report was written midway through the survey, I am unable to show details of all important free descriptions and their analyses. In the future, I will perform content analyses of this survey and explore how obstetric services both positively and negatively influence the psychological well-being of mothers who have children with disabilities.

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