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

Moya A.D. Martiningtyas, Universitas Gadjah Mada, Indonesia
Ira Paramastri, Universitas Gadjah Mada, Indonesia

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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.

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 hipocampus. Amigdala functions in cognitive-affective, such as unforgettable memories, while hipocampus 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 hipocampus (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 lope 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, Reily-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 17th, 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 & Jocic (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 (Juruena, 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 Neurosciene 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 21st, July 1st, July 15th, August 17th and 26th & 28th September 2014.

In the research phase, opening session of the 'Bipolar Beraksi' program was conducted on September 6th, 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 6th to 8th, 2014 because of the number of people registered.

'Bipolar Beraksi' program was begun on October 4th to October 26th, 2014. The first session was begun on October 4th, 2014, the second session was on October 5th, 2014, the third session was on October 11th, 2014, the fourth session was started on October 12th, 2014, the fifth session was on 18th October 2014 and the last session was on October 26th, 2014. The diaries contained of the frequency, intensity, and duration of bipolar mood was returned to the researcher at the closing session, on November 16th, 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 – postest)	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 Beraksi' 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 Beraksi’ 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 postest (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)	Postest (hr)	Pretest (hr)	Postest (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 postest 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 herselves 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; Andreescuu, 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 perticipants 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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