The Relationship between Gambling Behavior, Emotional Intelligence, and Self-Esteem in Adolescence

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Abstract

Accumulating research suggests that gambling can negatively affect core domains of development, particularly among adolescents. The present study sought to explore the relationship between gambling behavior, emotional intelligence, and self-esteem in a sample of 324 Greek adolescents (Mage= 13.9). Measures of constructs included the South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA; Winters, Stinchfield, & Fulkerson, 1993), the Trait Emotional Intelligence Questionnaire (TEIQue; Petridis, 2009), and Rosenberg's (1965) Self-Esteem Scale. In total, 124 adolescents (38%) reported gambling at least once a month (N= 94 males, N= 30 females). Within gamblers, a positive correlation between emotional intelligence and self-esteem (r= .65, p< .000) was observed; the strength of the relationship was higher in female gamblers (r= .77, p< .000) than in male gamblers (r= .62, p< .000). Furthermore, 66 adolescents (20.4% of the total population) reported gambling on a weekly basis (N=56 males, N= 10 females). The correlation between emotional intelligence and self-esteem did not vary significantly as a function of time among boys; emotional intelligence and self-esteem were moderately correlated (r= .60, p< .000), independent of whether they gambled or not. In female gamblers, however, the correlation between emotional intelligence and self-esteem was r=.85 (p< .005), as opposed to those who do not gamble (r=.69, p<.000). Increasing gambling behavior in adolescence highlights the need for further research on the exact nature, including psychosocial causes, of the relationship between frequency of gambling, emotional intelligence, and self-esteem, especially in girls.

Keywords: gambling behavior, adolescence, emotional intelligence, self-esteem

Introduction

The gambling industry has one of the fastest growth rates in today's economy supported fully by the public and private sector (Gupta, Derevensky, & Ellenbogen, 2006). Gambling refers to placing something of value at risk hoping to gain something which will prove of greater value (Blaszczynski & Nower, 2002; McMillen, 1996). For most individuals, gambling is a harmless diversion of everyday life, which is enjoyable and stimulating (Walker & Dickerson, 1996). Some individuals are nevertheless unable to control their gambling behavior, despite its adverse consequences on their psychosocial and financial well-being (Gupta et al., 2006; Poulin, 2000). Research indicates that, while most people keep their gambling behaviors under control, around 3.5% to 5% of the general population develops problematic gambling (Walker & Dickerson, 1996). Problematic gambling is the urge to continuously gamble, despite the adverse effects it has on the gambler's life. The most severe form of problematic gambling is pathological gambling, which is characterised by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition,* as continuous or periodic loss of control over gambling (Stinchfield, 2003).

Once viewed as a sin, gambling has now become a socially acceptable activity. Unlike previous generations, individuals no longer have to visit the local casino to gamble (Gupta & Derevensky, 2014). Gambling opportunities are easily available and accessible, with the internet being brought to the schools, homes, and the workplace, allowing for electronic gambling; visiting the corner convenience store to buy a lottery ticket is equally popular (Gupta & Derevensky, 2014). These abundant gambling opportunities have made it a common practice for the youth of today to engage in gambling activities (Gupta & Derevensky, 2000). Data suggest that problem gambling amongst adolescents is 2-4 times that of problematic adult gamblers (Parker et al., 2008). Recently, studies conducted in Canada and the US reveal that 4-8% of adolescents currently suffer from a severe gambling problem, while 10-15% of adolescents gamble excessively (Dickson, Derevensky, & Gupta, 2004). Early forms of youth gambling includes playing card games for money with friends, engaging in lottery play, or playing in sport games (Hardoon, Derevensky, & Gupta, 2001). However, as the gambling behaviour increases, youth generally gain illegal access to casinos, gamble online, play video-lottery games or place bets on sport (Hardoon, Derevensky, & Gupta, 2001). As parents, teachers, and psychologists have shown little concern over the increasing gambling rates in adolescents, research should shed important light on the exact nature of gambling-related behaviors (Campbell, Derevensky, Meerkamper, & Cutajar, 2012).

Compared to literature on adult gambling, it seems that research is scattered in terms of youth gambling (Hayatbakhsh et al., 2013). Little is known about how mental and emotional states may affect gambling tendencies (Hayatbakhsh et al., 2013). Some literature suggests that a common risk factor for adolescents becoming involved in gambling is poor parenting, maladaptive parent-child relationships, childhood abuse, parents who are addicts, dissociation from school, and easy access to gambling activities (Dickson, Derevensky, & Gupta, 2008). In addition, those individuals who are prone to seek novel activities and have poor self-directness are impulsive and unpredictable, increasing the likelihood that they will engage in gambling from a young age and eventually develop a gambling addiction (Dickson, Derevensky, & Gupta, 2008). Research has shown that youth who suffer from gambling problems

will use maladaptive ways of coping, including risky behaviors, such as drinking and/or taking drugs (Poulin, 2000). Consequently, these youth engage in gambling as a means to escape their reality of daily problems and stressors (Kun & Demetrovics, 2010). In his General Theory of Addictions, Jacobs (1986) suggested that individuals who have a state that is hyper or hypo aroused (i.e. impulsive or depressed), together with a traumatic childhood and low self-esteem, are more likely to acquire an addictive behavior to cope with their daily lives.

Gambling and Self-Esteem

Psychologists have defined self-esteem as the positive and negative evaluations we have about ourselves (Cheung, Cheung, & Hue, 2015; Crocker & Major, 1989). Rosenberg (1965) defines the concept of self-esteem as an individual's attitudes toward their self. Self-esteem also refers to general feelings of self-worth or self-value and helps construct a sense of self (Lightfoot, Cole, & Cole, 2008; Robins & Trzesniewski, 2005). Adolescents are characterized by different levels of self-esteem which vary according to social class, culture, and ethnicity (Harter, 1990). Gender differences are especially prominent in literature (Bachman et al, 2011; Baumeister, 1993; Harter, 1990; Puskar et al, 2010), with adolescent girls typically exhibiting lower levels of self-esteem compared to boys. Contributing to this, King (1997) found that, compared to girls, boys consistently scored higher on self-esteem, with a slight difference across age groups. Furthermore, self-esteem rates show a significant decrease during adolescence (Rosenberg, 1965; Robins & Trzesniewski, 2005). Bodily and psychosocial characteristics that accompany and typify puberty play a significant role in this decrease (Lightfoot et al, 2008). Studies have revealed that around one-half of adolescents struggle with a low self-esteem which may lead to delinquency, self-inflicted behaviours, suicide, and eating-disorders (Harter, 1990; Hirsch & DuBois, 1991).

Researchers have attempted to explain the association between self- esteem and problem behaviours, without however being able to identify the exact causal direction. In other words, it remains unclear whether low self-esteem causes adolescents to engage in risky and problematic behaviours or, reversely, engagement in problem behaviours bring about a poor self-esteem. One body of research suggests that individuals who have low self-esteem are more prone to engage in risky behaviours and develop addictions (Lightfoot et al, 2008). Perhaps poor self-esteem is a starting point for youth becoming involved in gambling. Other studies point out that engaging in gambling activities has a negative effect on one's own self-worth (Kaare, Mottus, & Konstabel, 2009). Accordingly, Baumeister (1997) suggests that gambling is a self-defeating behavior, which is directly linked to emotional unrest, firstly because it results in adverse consequences, such as losing large sums of money, and secondly because it undermines one's ability to self-regulate their emotions and regret ever having gotten involved in the self-defeating behavior in the first place. This selfdefeating behavior negatively affects self-esteem, which increases anxiety and depression (Kaare, Mottus, & Konstabel, 2009). It is also possible that having a low self-esteem influences an individual's decisions to engage in gambling as a recreational activity, and as the behavior increases and becomes problematic this further decreases individual's self-esteem.

Finally, comorbidity studies relate gambling behavior with poor self-esteem, social alienation, anti-social behavior, higher emotional distress, and learning difficulties (Harrison & Hoffman, 1989), as well as a high prevalence of emotional disorders, with 49.6% of subjects having mood disorders, 41.3% suffering from anxiety and 60.8% having a personality disorder (Petry, Stinson, & Grant, 2005). Indeed, this comorbidity may further lower gamblers self-esteem.

Gambling and Emotional Intelligence

When investigating mental disorders and addictions, psychologists generally focus on the construct of emotions (Kun & Demetrovics, 2010). Since the construct of emotional intelligence is only two decades old, not much literature has been dedicated to investigating the relationship between emotional intelligence and gambling amongst adolescents (Kun & Demetrovics, 2010). According to Salovey and Mayer (1990, p. 189), emotional intelligence is strictly defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions". This global definition of emotional intelligence suggests that individuals with high emotional intelligence have more adaptive ways of coping with life, have more positive mental and physical health, experience more success and have more intimate interpersonal relations than others (Chamorro-Premuzic, Bennett, & Furnham, 2007; Cheung et al, 2015; Salovey, Bedell, Detweiler, & Mayer, 1999; Tsaousis & Nikolaou, 2005). Equally important regarding emotional intelligence is the finding that girls on average have a higher level of emotional intelligence compared to boys (Katyal & Awasthi, 2005).

Moreover, a plethora of studies have found that inability to regulate affect is more common amongst those who have lower levels of emotional intelligence and is a defining risk factor for developing addiction-related behaviors, such as problematic gambling. Lumley and Roby (1995) postulated that lack of affect regulation causes individuals to experience difficulty controlling maladaptive and adverse emotions. This is mainly due to the fact that these individuals experience difficulty firstly in identifying their subjective feelings and secondly in being unable to confide in others about their feelings and seek the comfort they desperately need (Parker et al., 2008). Consequently, these individuals use addictive behaviors, such as gambling, to regulate their emotions and cope with them (Lumley & Roby, 1995). According to Kaur, Schutte, and Thorsteinsson (2006), those who have lower levels of emotional intelligence run a greater risk of problem gambling. Furthermore, the aforementioned researchers found that individuals with a higher emotional intelligence perceive themselves as more competent and successful, thus better able to handle any gambling tendencies they may have (Kaur, Schutte, & Thorsteinsson, 2006). As most of the information on emotional intelligence and gambling is related to the adult population, perhaps emotional intelligence is a contributing factor to the various determinates of problematic gambling amongst adolescents.

Self-Esteem and Emotional Intelligence

Schutte and colleagues (1998) investigated the relationship between self-esteem and emotional intelligence and found a strong positive correlation between the two constructs, where subjects with higher levels of emotional intelligence have more positive self-esteem. This finding is supported by literature which explains that emotionally intelligent people experience greater psychological well-being and lower levels of emotional deficits compared to those who are less intelligent emotionally (Chamorro et al, 2007). Mayer and Salovey (1995) explain that this is because those individuals who have a high level of emotional intelligence are able to maintain positive cognitions due to their ability to recognize, understand, generate, regulate and promote their emotions. Petrides and co-workers found that children who are more emotional intelligent have more positive traits and are more prosocial and successful, compared to students with lower emotional intelligence (2006). Petrides et al (2006) argues that higher emotional intelligence is directly linked to positive psychological functioning. Similarly, Austin, Saklofske, and Egan (2005) found that higher emotional intelligence is linked to higher well-being.

The accumulating studies showing that self-esteem is indispensable for positive psychological development have proven that higher levels of self-esteem are clearly associated with higher levels of emotional intelligence and vice versa. Moreover, research has consistently shown that adolescents who gamble perceive themselves more negatively and have poor control over their emotions, compared to non-gamblers (Gupta et al, 2006). The purpose of the present was to provide evidence on the relationship between the two constructs and gambling behavior in adolescence. It was hypothesized that higher levels of gambling behavior amongst adolescents will be associated with lower rates of self-esteem and emotional intelligence.

Method

Participants

For the purposes of the present study, 324 Greek high-school students were recruited from two public schools in the Southern suburbs of Athens. Of those recruited, 53.4% were male (N= 173) and 46.6% were female (N= 151). The age of the sample ranged from 12 to 17 years (M_{age} = 13.9). The participants' socioeconomic status ranged from middle to low.

Materials

Participants were requested to complete a brief demographic section which indicated their age and gender (see Appendix A), as well as three additional scales.

The South Oaks Gambling Screen–Revised for Adolescents (SOGS–RA; Winters, Stinchfield, & Fulkerson, 1993) was employed to assess participants' gambling behavior as well as the frequency of its occurrence in adolescents' lifetime as well as during the last 12 months (see Appendix B). The scale also indicates the severity of problematic gambling behavior following DSM criteria.

Participants' levels of emotional intelligence were assessed by the Trait Emotional Intelligence Questionnaire – (TEIQue–SF) which was developed by Petrides and Furnham (2006) (see Appendix C). The TEI Que–SF is a shorter version of the Trait

Emotional Intelligence Questionnaire (Petrides & Furnham, 2001). It is a 30-item Likert scale and responses may take values from 1= *completely disagree* to 7= *completely agree*. The total scores on the TEIQue–SF range from 30 (minimum score) to 210 (maximum score). Furthermore, the internal reliability of the scale was explored by calculating Cronbach's coefficient of alpha which was estimated at .797, providing satisfactory internal reliability.

Lastly, Rosenberg's Self-Esteem Scale (RSES; Rosenberg, 1965) was employed to assess students' self-esteem (see Appendix D). It consists of ten items and participants were requested to respond to each item on a 4-point Likert scale, ranging from SA= *strongly agree* to SD= *strongly disagree*. The minimum score that could be attained in the RSES is ten and the maximum score is thirty. The Cronbach's alpha value was found to be .806, indicating good levels of internal reliability.

Procedure

Data were gathered from two high schools during school hours. The two principals had been informed of the aims of the study in advance and had granted the necessary permission for the study to be conducted in their school premises. The researchers distributed to all students an informed consent form to be signed by their parents if they agreed for their child's participation (see Appendix E). After collecting all consent forms, the two principals contacted the researchers to arrange the days for the conduction of the study. Only two parents refused their offspring's participation in the present research. Given the number of students, two consecutive days were booked in each school.

The two researchers entered each classroom and introduced themselves to the students. The aims of the study were briefly explained and all ethical procedures that would be followed throughout the study (i.e. anonymity and confidentiality) were clarified. Students were also asked to confirm whether they wanted to participate in the study, regardless of their parents' permission. During the completion of the questionnaires, the researchers were available for any clarifications, while being discreet to provide the necessary privacy. The completion of the scales lasted approximately 20 minutes on average. The researchers collected the completed questionnaires and thanked the participants for their cooperation. Students were then debriefed for the objectives of the current study and a written debriefing form was given to them for their parents. The principal and the teachers of both schools were also debriefed upon completion.

Results

Frequencies, means, and gender differences

Overall, 80% of our population (N= 259) reported that they have gambled at least once in their lifetime, while 38% (N= 124) stated that they gamble on a monthly basis, and 20.4% (N= 66) on a weekly basis. In general, boys gambled more and more frequently than girls. 90% (N= 155) of our male sample stated that they have gambled at least once in a year whereas 69% (N= 104) of the female population reported that frequency. Moreover, 54% (N= 94) of boys indicated that they gamble at least once in a month and 32% (N= 56) at least once in a week. On the other hand, only 20% (N= 30) of girls engaged in monthly gambling and 7% (N= 10) in weekly (see Table 1).

Frequency of Gambling Behavior	Boys		Girls		Total	
	n	Perc.	n	Perc.	n	Perc.
Yearly	155	90%	104	69%	259	80%
Monthly	94	54%	30	20%	124	38%
Weekly	56	32%	10	7%	66	20.4%

Note. Perc. = percentage

Table 1: Frequencies and percentages of gambling behavior as a function of frequency of gambling and gender

Our sample's (N= 324) mean scores of emotional intelligence (EI) and self-esteem (SE) were similar, independently of the frequency of gambling (see Table 2).

	Yearly	Monthly	Weekly
	M (SD)	M(SD)	M (SD)
Emotional Intelligence	138.2 (19.0)	138.1 (19.6)	136.6 (19.7)
Self-esteem	28.6 (5.1)	28.9 (4.7)	28.9 (5.0)

Table 2: Means and standard deviations (SD) of EI and SE as a function of frequency of gambling behavior

The mean scores of emotional intelligence and self-esteem of males who gambled on a yearly (Yearly $M_{\rm EI}$ =138.7, Yearly $M_{\rm SE}$ = 29.6) or a monthly (Monthly $M_{\rm EI}$ =139.0, Monthly $M_{\rm SE}$ = 29.6) basis were slightly higher than those of girls (Yearly $M_{\rm EI}$ =137.4, Yearly $M_{\rm SE}$ = 27.2; Monthly $M_{\rm EI}$ =135.3, Monthly $M_{\rm SE}$ = 26.7). As far as weekly gamblers are concerned, females reported higher levels of emotional intelligence (Weekly $M_{\rm EI}$ = 143.0) than boys (Weekly $M_{\rm EI}$ = 135.5), but lower levels of self-esteem (Weekly $M_{\rm SE}$ = 27.6) compared to boys (Weekly $M_{\rm SE}$ = 29.1), (see Table 3).

2	Male Gambler	S	
	Yearly	Monthly	Weekly
	M (SD)	M(SD)	M (SD)
Emotional Intelligence	138.7 (19.3)	139.0 (20.0)	135.5 (19.8)
Self-esteem	29.6 (4.7)	29.6 (4.5)	29.1 (5.1)
	Female Gamble	rs	
	Yearly	Monthly	Weekly
	M (SD)	M(SD)	M (SD)
Emotional Intelligence	137.4 (18.4)	135.3 (18.7)	143.0 (18.4)
Self-esteem	27.2 (5.4)	26.7 (4.7)	27.6 (4.8)

 Table 3: Means and standard deviations (SD) of EI and SE as a function of frequency of gambling and gender

Associations between emotional intelligence and self-esteem

Correlations between emotional intelligence and self-esteem in gamblers were computed to assess the relationship between the two constructs across frequency of gambling behavior. Pearson's correlations are presented in Table 4. Overall, moderate levels of association between self-esteem and emotional intelligence were observed in those who gambled on a yearly basis (r=.661, N = 259, p<. 000), in those who gambled on a monthly basis (r=.649, N = 124, p<.000), and those who gambled on a weekly basis (r=.609, N = 66, p < .000). Increases self-esteem were correlated with increases in emotional intelligence.

Measure	Yearly		Monthly		Weekly		
	1	2	1	2	1	2	
1. Emotional Intelligence	123	.661*	2	.649*	υ	.609*	
2. Self-esteem	.661	l* -	.649*	× _	.609*		

Note. *p<.000

Table 4: Correlations between EI and SE as a function of frequency of gambling behavior

Given the moderate level of associations observed, we also explored gender differences in the relationship between the two constructs. More specifically, Pearson's correlations were computed to assess the relationship between self-esteem and emotional intelligence in male adolescents who gambled on a yearly, monthly, and weekly basis. Similar to the associations observed for the total population, moderate, positive correlations between the TEIQue-SF and RSES scales were observed in those males who gamble on a yearly basis (r=.597, N = 155, p<.000), a

monthly basis (r= .618, N = 94, p< .000), and a weekly basis (r= .603, N = 56, p < .000). Overall, increases in self-esteem were moderately correlated with increases in emotional intelligence (see Table 5).

Measure	Yearly		Monthly		Weekly		
	1	2	1	2	1	2	
1. Emotional Intelligence	-	.597*	-	.618*	-	.603*	
2. Self-esteem	.59	7* -	.618	* _	.603	3* -	

Male Gamblers

Note. *p<.000

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Measure	Yearly		Mont	thly	Weekly		
	1	2	I	2	Ι	2	
1. Emotional Intelligence	1772	.782*	170	.769*	-	.850**	
2. Self-esteem	.782*	-	.769*	۰	.850**	81 7 81	

Note.*p<.000, **p<.005

Table 5: Correlations between EI and SE as a function of frequency of gambling behavior and gender

Accordingly, Pearson's correlations were computed to assess the relationship between self-esteem and emotional intelligence in female adolescents who gambled on a yearly, monthly, and a weekly basis. High positive correlations between the TEIQue-SF and RSES scales were found in those female adolescents who gambled on a yearly basis (r=.782, N = 104, p<. 000), a monthly basis (r=.769, N = 30, p<.000), as well as on a weekly basis (r=.850, N = 10, p<.005). Overall, self-esteem and emotional intelligence were found to be are strongly associated in the case of females (see Table 5).

In sum, moderate correlations between the two constructs were found in male adolescents, independent of the frequency of their gambling behavior. For girls, however, the associations between self-esteem and emotional intelligence were found to be strong, and continued to increase as the frequency of their gambling behavior increased.

Discussion

The present study sought to explore the relationship between adolescents' gambling behaviour and two psychosocial constructs. More specifically, students' levels of self-esteem as well as their levels of emotional intelligence were measured and analyzed in relation to the frequency of their gambling behaviour.

First of all, it was hypothesized that higher levels of gambling behaviour will be associated with lower levels of self-esteem, in both male and female adolescents. Previous research (Baumeister, 1997; Gupta et al, 2006; Harrison & Hoffman, 1989; Kaare et al, 2009; Lightfoot et al, 2008; Petry et al, 2005) suggests that risky behaviours and gambling activities in particular are consistently related to poor self-esteem.

Our results indicated no significant variation in self-esteem across frequency of gambling behaviour, in both males and females. In other words, levels of self-esteem remained relatively constant, independent of whether the participants gambled once a year, once a month, or only once a week. A possible explanation could relate to the age of our sample; the mean age of the total population was 13.9 years. Lightfoot and colleagues (2008) provide enough evidence that changes in self-esteem are directly related to the rise of puberty, when adolescents are going through this awkward stage where they are experiencing bodily changes, fluctuating emotions and are developing new interpersonal relationships. It is therefore possible that early adolescence presents no marked changes in self-esteem and that the sample in the present study has not yet fully experienced the characteristics of puberty. Significant differences may not appear until middle to late adolescence.

A second possible explanation for the absence of variation in self-esteem levels as a function of frequency of gambling behaviour may be that adolescents who gamble may not gamble to double their money, but are rather doing it for fun. Baumeister (1997) suggests that one of the reasons gambling undermines one's own self-worth is losing large amounts of money, in other words, the financial cost. If adolescents have a different intention when they are gambling (compared to pathological gamblers who gamble because they are unable to control their behaviors and want to make money) and take the chance with their money and gamble, it is possible that losing may have little effect on their self-concept compared to pathological gamblers who rely on winning. Further research is needed to better understand the exact nature of the relationship between incentives for gambling and self-esteem, predominantly in adolescence.

The gender differences observed in self-esteem typically agree with findings in previous studies (Bachman et al, 2011; Harter, 1990; Lightfoot et al, 2008; Puskar et al., 2010); female adolescents in the present study reported lower levels of self-esteem than males, regardless of how frequently they engaged in gambling activities.

The second main goal of our study focused on the relationship between gambling behaviour and the psychosocial construct of emotional intelligence. Following previous work (Gupta et al, 2006; Kaur, Schutte, & Thorsteinsson, 2006; Kun & Demetrovics, 2010; Lumley & Roby, 1995; Parker et al, 2008), it was hypothesized

that higher frequency of gambling behaviour will be associated with lower levels of emotional intelligence, in both male and female populations.

Our results showed that male adolescents who gamble frequently (that is, on a weekly basis) reported lower levels of emotional intelligence compared to those who gamble on a monthly basis or once a year. This finding is consistent with previous literature (Gupta et al, 2006; Kun & Demetrovics, 2010; Parker et al, 2008) which suggests that those who have higher levels of emotional intelligence are more efficient in controlling their gambling behaviour.

Surprisingly, our female adolescent population suggested a different pattern of the relationship between the two constructs. Girls who reported gambling on a weekly basis showed higher levels of emotional intelligence compared to those females who gambled once a month or once a year and significantly higher levels of emotional intelligence than boys who gambled weekly. A review of literature on emotional intelligence clearly shows significant differences between girls and boys in terms of emotions (Austin et al, 2005; Feldman, 2011; Lightfoot et al, 2008; Kun & Demetrovics, 2010). Traditionally, the emotional dimensions of human beings have been linked to a greater extent with the female gender, which experience positive and negative emotions more intensely than males. This has been supported by both biological and social explanations. The biological explanation holds that women's biochemistry is better prepared to consider one's own emotions as well as those of others as an important factor in survival. Supporting this claim, certain parts of the brain that control emotions are larger in females than in males, and the cerebral processing of emotions also differ in males and females; the female brain is also predominantly structured to feel empathy and the male brain predominately seeks to understand and construct systems. Socially, women obtain an education biased towards expressing emotions from a young age, whereas men are socialized to minimize emotions such as guilt, sadness and vulnerability. This greater selfawareness may possibly explain why girls' levels of emotional intelligence increased as a function of gambling, mainly because as they gamble more frequently, they are better able to recognize that this may develop into a problem. This greater insight potentially may allow females to control their gambling tendencies more so than males. It is also being suggested that researchers should revisit the impact of gender on the relationship between levels of emotional intelligence and frequency of gambling in adolescence.

One limitation of the present study relates to the number of assessment strategies adopted to measure the constructs of interest. Each variable was measured by a single scale. It could be argued that a more variable approach to the assessment of emotional intelligence and/or self-esteem might have resulted in greater variability in our findings. Petrides and Furnham (2000), for example, suggest that, in studying and measuring emotional intelligence, an ability measure or a self-report format may yield different results.

Another limitation of the present study is that gambling behavior was studied as a single act. Although we collected data on the different gambling activities adolescents engage in (South Oaks Gambling Screen – RA), the study mainly focused on the frequency of those activities (grouped as 'gambling behavior') rather than the type. Jacobs (2000), for example, suggests that males and females prefer different types of

gambling. Perhaps stronger associations among constructs may have been observed if different activities were analyzed, especially in studying boys. A follow-up study could focus on an in-depth investigation of emotional intelligence and self-esteem in relation to the different types of gambling activities, further including adolescents' self-reports of levels of expertise in those activities.

Interventions

As gambling is becoming extremely popular amongst adolescents, various interventions are developed to act as roadblocks, preventing gambling from resulting in negative consequences, such as problematic gambling. Adolescents need to be educated of their possible misconceptions about gambling and develop more realistic attitudes (Ferland, Ladouceur, & Vitaro, 2002). Cognitive-behavioral approaches may teach adolescents to identify their erroneous thoughts and correct them; they may also help them develop skills to monitor their thinking about gambling while developing replacement behaviors (Lightfoot et al, 2008; Santrock, 2011). The social media, such as Facebook, may also highlight potential risks in this problematic epidemic as well as the grave consequences of engaging in addictive behaviours.

Furthermore, school psychologists and educators are in the unique position to be able to identify students with potential gambling problems, advise them, and monitor their academic progress and psychosocial development. As many adolescents keep this behavior a secret, schools should routinely inquire about gambling behaviour and develop educational and social policies, just as they do with drug and alcohol problems (Santrock, 2011).

Even though most adolescents may gamble pointlessly, many novel and more intriguing gambling opportunities may appear in the future, which may intensify the thrill of winning, and potentially turn this behaviour into a problematic behavior. Thus parents and teachers should be vigilant and help adolescents realize their hobbies, while encouraging them to be constructively occupied through participation in group activities that are meaningful (Colwell, Grady, & Rhaiti, 1995).

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Appendix A

Demographic Information

1. Age:_____

2. Gender: Male □

Female □

Appendix B

South Oaks Gambling Screen – RA (revised for adolescents) R.Stinchfield, K. Winters

Date:_____

Age:_____

1. Indicate how often, if at all, you have done these activities in your	LIFETIME		DURING PAST 12 MONTHS						
lifetime and in the past 12 months.		At least once	Never	Less than monthly	Monthly	Weekly	Daily		
a. Played cards for money									
b. Flipped coins for money									
c. Bet on games of personal skill like pool, golf or bowling									
d. Bet on sports games									
e. Bet on horses, dogs or other animals									
f. Played bingo for money									
g. Played dice games (such as craps or over and under)									
 Played slot machines, poker machines or other gambling machines 									
i. Played scratch tabs									
j. Played the lottery by picking numbers									
k. Played pull tabs									
1. Played Jai-Alai									
m. Bet at a casino									
n. Bet on a gambling cruise ship									
o. Played bolita									
p. Bet on video games									
 Played the stock, options or commodities market for money 									
r. Bet on some form of gambling not listed above (Specify)									

- 2. What is the largest amount of money you have ever gambled at one time in the past 12 months?
 - \circ \$1 or less
 - \circ More than \$1 up to \$10
 - \circ More than \$10 up to \$49
 - o \$50-\$89
 - o \$100-\$199
 - \$200 or more

3. Do either of your parents (or guardians) play any games of chance for money?

- o Yes
- o No
- I don't know

If "yes," which one?

- Mother only
- Father only
- Both mother and father
- \circ Other (specify)

4. Do you think that either of your parents (or guardians) gamble too much? **n**. Yes

- o No
- Don't know

If yes, which one?

- Mother only
- Father only
- Both Mother and Father
- \circ Other (specify)

5. In the past 12 months, how often have you gone back another day to try to win back money you lost?

- Every time
- Most of the time
- Some of the time
- o Never

6. In the past 12 months when you were betting, have you ever told others you were winning when you really weren't winning?

- o Yes
- o No
- 7. Has your betting money, in the past 12 months, ever caused any problems for you such as arguments with family and friends, or problems at school or at work?
 - o Yes
 - o No
- 8. In the past 12 months, have you ever gambled more than you had planned to?

o Yes

o No

- 9. In the past 12 months, has anyone criticized your betting or told you that you had a gambling problem, regardless of whether you thought it was true or not?
 - o Yes
 - o No
- 10. In the past 12 months, have you ever felt bad about the amount you bet, or about what happens when you bet money?
 - o Yes
 - o No
- 11. Have you ever felt, in the past 12 months, that you would like to stop betting money but didn't think you could?

• Yes

o No

- 12. In the past 12 months, have you ever hidden from family or friends any betting slips, IOUs, lottery tickets, money that you've won, or other signs of gambling?
 - o Yes
 - o No
- 13. In the past 12 months, have you had money arguments with family or friends that centered on gambling?
 - o Yes
 - o No
- 14. In the past 12 months, have you borrowed money to bet and not paid it back?
 - o Yes
 - o No
- 15. In the past 12 months, have you ever skipped or been absent from school or work due to betting activities?
 - o Yes
 - o No
- 16. Have you borrowed money or stolen something in order to bet or to cover gambling debts in the last 12 months?
 - o Yes
 - o No

If yes, check () from whom or where you got the money or goods (check all that apply):

- a. ____ Parents or guardians
- b. ____ Brother(s) or sister(s)
- c. ____ Relatives
- d. ____ Friends

g. You passed a bad check on your checking account

e. ___Loan sharks

h. ___You stole from someone

f. ____You sold personal or family property

Score_____(Completed by Provider) Provider Code_____

SOUTH OAKS GAMBLING SCREEN: REVISED FOR ADOLESCENTS (SOGS-RA)

The 12 scored items for the SOGS-RA from Winters, K.C., Stinchfield R.D. and Fulkerson, J. (1993a) are listed below.

a. How often have you gone back another day to try and win back money you lost gambling?

Every time/Most of the time/Some of the time/Never

b. When you were betting, have you ever told others you were winning money when you weren't?

Yes/No

c. Has your betting money ever caused any problems for you such as arguments with family and friends, or problems at school or work?

Yes/No

d. Have you ever gambled more than you had planned to?

Yes/No

e. Has anyone criticized your betting, or told you that you had a gambling problem whether you thought it true or not?

Yes/No

f. Have you ever felt bad about the amount of money you bet, or about what happens when you bet money?

1

Yes/No

g. Have you ever felt like you would like to stop betting, but didn't think you could?

Yes/No

h. Have you ever hidden from family or friends any betting slips, IOUs, lottery tickets, money that you won, or any signs of gambling?

Yes/No

i. Have you had money arguments with family or friends that centered on gambling?

Yes/No

j. Have you borrowed money to bet and not paid it back?

Yes/No

k. Have you ever skipped or been absent from school or work due to betting activities?

Yes/No

I. Have you borrowed money or stolen something in order to bet or to cover gambling activities?

Yes/No

Scoring Rules for SOGS-RA

Each item is scored either 1 (affirmative) or 0 (nonaffirmative). Item "a" is scored 1 if respondent indicates "every time" or "most of the time" and is scored 0 otherwise. Calculations for broad and narrow rates come from Winters, Stinchfield and Kim, 1995.

Calculation of Narrow Rates	Calculation of Broad Rates
Level $0 = No$ past year gambling.	Level $0 = No$ past year gambling
Level 1= SOGS-RA score of $_$ 1	Level 1 = Gambling less than daily and SOGS-RA score = 0, OR, less than weekly gambling and SOGS-RA score _ 1.
Level 2 = SOGS-RA score of 2 or 3	Level 2 = At least weekly gambling and SOGS-RA score _ 1 OR gambling less than weekly and SOGS-RA score _ 2.
Level 3 = SOGS-RA score of $_$ 4	Level 3= At least weekly gambling + SOGS RA score _ 2 OR daily gambling

Winters, K.C., Stinchfield, R.D, & Fulkerson, J. (1993). Toward the development of an adolescent problem severity scale. Journal of Gambling Studies, 9, 63-84.

Appendix C

TEIQue-SF

Instructions: Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from 'Completely Disagree' (number 1) to 'Completely Agree' (number 7).

1		ely					
1. Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2. I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3. On the whole, I'm a highly motivated person.	1	2	3	4	5	6	7
4. I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5. I generally don't find life enjoyable.	1	2	3	4	5	6	7
6. I can deal effectively with people.	1	2	3	4	5	6	7
7. I tend to change my mind frequently.	1	2	3	4	5	6	7
8. Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
10. I often find it difficult to stand up for my rights.	1	2	3	4	5	6	7
11. I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12. On the whole, I have a gloomy perspective on most things.	1	2	3	4	5	6	7
13. Those close to me often complain that I don't treat them right.	1	2	3	4	5	6	7
14. I often find it difficult to adjust my life according to the circumstances.	1	2	3	4	5	6	7
15. On the whole, I'm able to deal with stress.	1	2	3	4	5	6	7
16. I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7
17. I'm normally able to "get into someone's shoes" and experience their emotions.	1	2	3	4	5	6	7
18. I normally find it difficult to keep myself motivated.	1	2	3	4	5	6	7
19. I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20. On the whole, I'm pleased with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. I tend to get involved in things I later wish I could get out of.	1	2	3	4	5	6	7
23. I often pause and think about my feelings.	1	2	3	4	5	6	7
24. I believe I'm full of personal strengths.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26. I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7
27. I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29. Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30. Others admire me for being relaxed.	1	2	3	4	5	6	7

Scoring key: Reverse-score the following items and then sum up all responses

I often find it difficult to show my affection to those close to me. (R) 16 I often find it difficult to see things from another person's viewpoint. (R) 2 I normally find it difficult to keep myself motivated. (R) 18 I usually find it difficult to regulate my emotions. (R) 4 I generally don't find life enjoyable. (R) 5 I tend to change my mind frequently. (R) 7 I tend to get involved in things I later wish I could get out of. (R) 22 Many times, I can't figure out what emotion I'm feeling. (R) 8 I normally find it difficult to stand up for my rights. (R) 10 I tend to "back down" even if I know I'm right. (R) 25 I don't seem to have any power at all over other people's feelings. (R) 26 On the whole, I have a gloomy perspective on most things. (R) 12 Those close to me often complain that I don't treat them right. (R) 13 I find it difficult to adjust my life according to the circumstances. (R) 14

*Numbers on the right correspond to the position of the items in the short form of the questionnaire. **If you would like to derive factor scores based on the long form, see Webnote 2 on the website.

Trait Emotional Intelligence Questionnaire – Short Form (TEIQue-SF). This is a 30-item questionnaire designed to measure *global* trait emotional intelligence (trait EI). It is based on the long form of the TEIQue (Petrides & Furnham, 2003). Two items from each of the 15 subscales of the TEIQue were selected for inclusion, based primarily on their correlations with the corresponding total subscale scores. This procedure was followed in order to ensure adequate internal consistencies and broad coverage of the sampling domain of the construct. Items were responded to on a 7-point Likert scale. The TEIQue has been constructed with the aim of providing comprehensive coverage of the trait EI domain (Petrides & Furnham, 2001).

Petrides, K. V. & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, *15*, 425-448.

Petrides, K. V. & Furnham, A. (2003). Trait emotional intelligence: Behavioural validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality*, *17*, 39-57.

Reference for the TEIQue-SF: Petrides, K. V. & Furnham, A. (2006). The role of trait emotional intelligence in a gender-specific model of organizational variables. *Journal of Applied Social Psychology*, *36*, 552-569.

Please note that any commercial use of this instrument is strictly prohibited.

If you would like to use the long form of the TEIQue, please e-mail me at: <u>k.petrides@ucl.ac.uk</u>

For more information about the trait emotional intelligence research program go to: www.psychometriclab.com

Appendix D

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale - from strongly agree to strongly disagree. The original sample for which the scale was developed consisted of 5,024 High School Juniors and Seniors from 10 randomly selected schools in New York State.

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA	А	D	SD
2.*	At times, I think I am no good at all.	SA	Α	D	SD
3.	I feel that I have a number of good qualities.	SA	Α	D	SD
4.	I am able to do things as well as most other people.	SA	Α	D	SD
5.*	I feel I do not have much to be proud of.	SA	Α	D	SD
6.*	I certainly feel useless at times.	SA	A	D	SD
7.	I feel that I'm a person of worth, at least on an equal plane with	SA	Α	D	SD
	others.				
8.*	I wish I could have more respect for myself.	SA	Α	D	SD
9.*	All in all, I am inclined to feel that I am a failure.	SA	Α	D	SD
10.	I take a positive attitude toward myself.	SA	Α	D	SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self esteem.

The scale may be used without explicit permission. The author's family, however, would like to be kept informed of its use:

The Morris Rosenberg Foundation c/o Department of Sociology University of Maryland 2112 Art/Soc Building College Park, MD 20742-1315

References

References with further characteristics of the scale:

Crandal, R. (1973). The measurement of self-esteem and related constructs, Pp. 80-82 in J.P. Robinson & P.R. Shaver (Eds), **Measures of social psychological attitudes. Revised** edition. Ann Arbor: ISR.

- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- Wylie, R. C. (1974). **The self-concept. Revised edition**. Lincoln, Nebraska: University of Nebraska Press.

Appendix E

Informed Consent

Purpose of the study: Your child is being invited to participate in a research study that is being conducted by Dr. Evanthia Ganetsou, Psychology Professor at the American College of Greece, Deree College, Nefeli Ladaki, and Nastassja Brennan DeVine, both undergraduate psychology students at the American College of Greece, Deree College. The aim of this study is to examine student attitudes towards gambling and their relationship to different psychological constructs.

Procedure: If you agree for your child to participate in this research, your child will be asked to complete three questionnaires. No more than 20 minutes are required for their completion. It is important that questions are answered as honestly as possible. Your child may ask for any clarifications concerning the completion of the questionnaire sat any point of the procedure.

Risks: There are no known psychological and physical risks for taking part in this research. Your child can withdraw from the procedure at any point if he/she feels uncomfortable. Do not forget, your child's participation is totally voluntary!

Benefits: By allowing your child to participate in this research, you contribute to psychological research. The findings of this research can be useful to developmental and educational psychologists. More specifically, the research findings may form the basis for additional research on adolescent gambling behaviors in Greece, which seem to be on the increase.

Confidentiality and Anonymity: Your child's answers will be kept completely confidential. Your child will not be asked to provide its name on the questionnaire. The answers will be used only for the purposes of the specific study. All questionnaires will be kept in a safe place and only the researchers will have access to them.

Contact information: If you have any questions regarding this research, you may contact the researchers by email at: <u>eganetsou@acg.edu</u>, <u>nladaki@acg.edu</u>, <u>ndevine@acg.edu</u>

By signing this informed consent, you acknowledge that you have read and understood its content and that your child's participation in this research is completely voluntary. Also, keep in mind that your child can withdraw from the study for any reason, at any point.

Participant's Parent signature:

Date: _____

Researcher's signature:

Date:

Thank you in advance for allowing your child to participate!