The Relationship Between Self-Esteem, Cognitive Distortion and Depression Among Adolescents

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Abstract

The objectives of this study were to determine the relationship between self-esteem, cognitive distortion and depression among adolescents. Participants of this study were 150 adolescents between 13-18 years old from Johor. The data were collected using a set of questionnaires comprising background characteristics, Rosenberg Self-Esteem Scale (RSES), Cognitive Distortion Scale (CDS) and Reynolds Adolescence Depression Scale (RADS). Results showed that there were correlation between self-esteem, cognitive distortion and depression among adolescents. Besides, the results of the research showed that there were significant differences in depression, cognitive distortion and self-esteem between girls and boys. The results indicated adolescents' girls were more depressed than boys. As predicted, boys were significantly had higher self-esteem than girls. Finally the research showed that girls displayed significantly higher cognitive distortion than boys. The implications of this study were also discussed

Keywords : Self-esteem, cognitive distortion, depression, adolescents

Introduction

Adolescence period is the most challenging phase of life hence, they should be well- prepared to encounter those challenges. They will be facing conflicts such as identity development, questioning themselves about their beliefs, life purpose, future, self-esteem and many more (Najmuddin 2003). Having being not prepared with such challenges, it will be difficult for them to deal with these conflicts. Thus, they need help and guidance from the adults like parents, teachers, and the leaders of society to live their adolescent's life and handle conflicts in a positive way (Najmuddin 2003).

Adolescence as being mentioned earlier was the critical stage of an individual's growth. Since they are the assets of a country, the issues arise from this group has to be taken seriously and a proper guidance need to be given to them as a process of learning. The issue of depression among children and adolescents has long been discussed since decades ago. The psychoanalysts suggested that depression would not happen until adolescent's stage whereby the superego personality started to develop. There were also debates among psychologists that depression is a phenomenon that happened during the transitional period of life and naturally disappear when the period ends (Lefkowitz & Burton 1978). Meanwhile, the current researches on these issues found that depression among children and adolescents were similar with the one experienced by the adults. Hence, the symptoms diagnosed for an adult will be used to diagnose children and

adolescents (Maag & Forness 2007). Lakdawalla, Hankin and Mermelstein (2007) longitudinal study during childhood until young adulthood found that there were 2% of children at the age of 13 years old experienced depression at the first phase of the research. However, the percentage dramatically increase to 17% at the age of 18 years old. Furthermore, among the special school population, 14% and 54% of children with learning disability and serious emotional disturbance respectively showed a serious depressive symptoms among children and adolescents (Weiner 1982).

Psychological perspective explained the phenomenon by suggesting that life conflicts that happened during adolescents were due to the uncontrollable emotion experienced by them. The situation becomes worse when they could not find ways out of it and eventually felt useless and incapable of doing things. At this time around, they will most likely have low self-esteem and prone to experience depression. Beck (1976) stated that individuals who often experienced negative life events are prone to depression due to the formation of negative life schema. In regards to self-esteem, it forms from the beginning of life until adulthood. The stage of life experienced by an individual will influenced their attitudes and also personality development. Rosenberg (1979) argued that those who were able to have self-respect and have a sense of self-worth will develop a high self-esteem within themselves. In contrast, those with low self-esteem would not feel the same way and tend to look down upon their own capabilities (Azizi Yahaya et al, 2006).

Hankin & Abramson (2001) pointed out that the prevalence rate of depression increase drastically during adolescence period and girls were found to have a higher depression level compared to boys. The study of gender differences in relation with depression were supported from past researches in different countries with various cultural background. Besides, the role of female in a society often discriminated by having the stereotype of women being weak and have different capabilities compared to man which explained the development of depression for girls.
Thus, the purpose of this study is to examine the relationship between self-esteem, cognitive distortions and depression among adolescents. This study focused on the five dimensions in cognitive distortions which were self-criticism, self-blaming, helplessness, hopelessness and thinking of danger. This study also include gender differences in order to find any differences between the boys and girls for the three variables. Additionally, in regards to the study conducted, the society will be able to help each other in order to build a healthier younger generation and create awareness to the society on the importance of curbing the current problem. Besides, parents, educators, counselors and also the NGOs' will benefit from the study by planning a proper treatment or intervention for the adolescents who were in need. Last but not least, the study will also enhance our understanding regarding the psychological perspective of the adolescents.

A study by Donnellan, Trzeniewski, Robins, Moffitt and Caspi (2005) examined the relationship between self-esteem and delinquent behavior among adolescents resulted in negative relationship between both variables. It was also reported that the delinquent groups has a lower self-esteem compared with the non-delinquent group. This is also supported by a study by Quatman and Watson (2001) on the differences between global self-esteem level and the self-esteem component between genders among adolescents. They found out that boys had a higher global self-esteem than girls with 6 domain (personal security, home/parents, attractiveness, personal mastery, psychological permeability, and athletic competence) dominant by boys while the other

two domain (academic competence and popularity among peers) has no significant gender differences. A longitudinal study on self-esteem by Simmons, Blyth, Van Cleave and Brush (1979) that examined the changes of self-esteem from childhood to adolescent from two different school system at grade 6 and 7 focused on the relationship between self-esteem with the school environment, puberty and the children involvement in social setting. It was found that girls had a lower self-esteem in comparison with boys at grade 7. Besides, the study also concluded that adolescent girls who experienced changes in terms of school environment, physical growth and social practices faced self-esteem dropped in comparison with others.

Depression has always been a researched topic among psychologists until today. Kelly et al. (1999) examined depression among psychology students in a university based on gender and races. They found out that the prevalence rate of depression among female is higher than male while there is no significant differences on depression between races. However, the study revealed that the White female American experiencing depression higher than the White male American while there was no significant gender differences among African American. In comparison between races, the depression level between the White female American and female African American were the same whereas the depression level among male African American was higher than White male American. Another study on depression carried out by Allison, Roger, Martin and Keeves (2001) also revealed the mean score for depression is higher for girls and the suicidal ideation was frequent among depressed girls.

Cognitive distortion is also associated with depression. Studies on cognitive distortion among young population have resulted in inconsistent findings in comparison with study with adult population. This is due to the cognitive ability differences whereby adults have a higher cognitive ability compared with children. Study by Lakdawalla et al. (2007) examined the function of cognitive theories in explaining depression among children and adolescents. The theories reviewed in the study were Beck's theory, Hopelessness theory and Response Styles theory. Results showed the cognitive factor has small effect on depression among children and moderately larger effect for adolescents. However there were little evidence on the effectiveness of cognitive factors in explaining depression among children and adolescents. Swedish researchers for instance Larden, Melin and Holst (2006) self-report study includes two more factors such as moral judgment and empathy among delinquents and non-delinquents. This study found that there were significant differences between both groups in terms of cognitive distortion and moral judgment. Besides, the girls were discovered to have more mature moral judgments, less cognitive distortions and more empathy than boys. This study also provides evidence that relationships exist between the three factors.

Self-esteem is known as the individual shield towards negative environment experienced by one. An individual with lower self-esteem often associated with emotional imbalance which will cause anxiety and depression while those with high self-esteem often have a stable emotion, productive problem solving and high motivation (Harter 1990). Matsura, Hashimoto & Toichi (2009) found that self-esteem was negatively correlated with depression and a significant predictor of depression among female delinquents. The result showed that at-risk individuals were more likely to have uncertainty with their self-esteem, greater uncertainty towards future events and more certain towards the likelihood of negative events in comparison with the never depressed group though their self-esteem traits were at par. Besides, comparing with dysphoric individuals, the at-risk group were less likely to view an event positively. It showed that the at-risk

individuals had a pessimistic view towards future events and had relatively precarious adaptive self-appraisals (Luxton et al. 2006).

There is a tendency for one to make negative interpretation about an event contributing to the onset and persistent of depression. Depressed children were believed to experience a high cognitive distortion and lower self-esteem in line with Beck's theory of depression (Tems et al. 1993). Marton and Kutcher (1995) examine the prevalence rate of cognitive distortion among depressed adolescents showed that most of the depressed adolescents were experiencing cognitive distortion. Additionally, this group also manifested more depressive symptoms compared with the rest of the group. A cross-sectional study has proven that negative self-perception among children will predict depressive symptoms and vice versa. However, cognitive distortion could not predict the depressive symptoms but depressive symptom is a predictor of cognitive distortion. The study suggested that depressive symptoms cause negative effect towards children self-perception. A positive relationship between depressions with cognitive distortion dimensions were discovered indicating the higher the depression level, the higher the cognitive distortion among delinquents (Nasir et al. 2010).

Methodology

This research was conducted using correlation analysis by using the data collected quantitatively through survey. The data received is based on the questionnaires distributed to the respondents which include the demographic profile of the respondents as well as self-esteem, cognitive distortion and depression scales among adolescents.

The respondents were recruited by using the purposive sampling technique to get respondents with the range age from 13-18 years old which fits the adolescents' category. The research was conducted in Kluang, Johor specifically in the hotspot areas such as shopping mall, restaurant, schools and tuition centers. By having respondents from different areas will help the researcher to discover different background and diversity. With that, the researchers manage to collect 150 respondents which consisted of 60 boys and 90 girls as well as other demographic profiles such as races, education level, and their parent's occupation.

The questionnaires set consists two parts which is Part A and Part B. Part A consisted of the demographic questionnaires and part B was the set of questionnaires which comprised of Rosenberg Self-esteem Scale (RSES), Cognitive Distortion Scale (CDS), and Reynolds Adolescence Depression Scale (RADS) each measure the self-esteem, cognitive distortion and depression level of the respondents.

The Rosenberg Self-Esteem Scale was developed by Rosenberg in 1965 and is used to measure self-esteem. This questionnaire consists of 10 items to examine the self-esteem dimension globally and has a strong psychometric properties with the reliability above .80 (Rosenberg, Fischer & Corcoran (1994); Nasir et al. (2004). In addition, the items were short and concise which help the respondents especially the adolescent to answer easily. The score used was the 4-points Likert scale from "Strongly disagree" to "Strongly Agree".

Cognitive Distortion Scale (CDS) was developed in 1997 by Briere to examine the negative affect or dysfunctional personality traits. There are 40 items in the instrument with 5 domains

each represents self-criticism, self-blame, helplessness, hopelessness, and preoccupation with danger. The scale used is 5-points Likert scale with 1=Never, 2=Rarely, 3= Occasionally, 4=Frequently, 5=Very Frequently'. The higher the score indicates a high level of cognitive distortion. The psychometric properties of the instrument showed a high reliability for each domain with alpha Cronbach $\alpha \geq .89$ for clinical sample (Briere, 2000).

Reynolds Adolescence Depression Scale (RADS) was developed by Reynolds (1987) to measure the depression symptoms among adolescents. There are 30 items which cover the cognitive, somatic, psychomotor and personal relationship. The respondents were instructed to find the most accurate answer for each item within the time frame of 10-15 minutes. The items were also made simple and were developed based on the symptoms written in DSM-III manual. The psychometric properties of the instrument showed a good reliability with alpha Cronbach α=.90 (Merrell, 2008; Nezu, 2000) The scale used for this questionnaires is the 4-point Likert scale starts with 'Never', 'Rarely', 'Occasionally' and 'Frequently'. There are 23 negative items which indicates 1=Never, 2= Rarely, 3= Occasionally, 4= Frequently while for positive items 4=Never, 3= Occasionally, 2= Rarely, 1= Frequently.

Results and Discussion

Table 1showed majority of the respondents were at moderate level of depression that was 133 or 88.7%, 15 or 10% were reported at low level and 2 or 1.3% were at high level..

Table 1: Level of Depression among adolescents

Level of depression	n	Frequency (%)
Low (30-60)	15	10.0
Moderate (61-90)	133	88.7
High (91-120)	2	1.3
Total	150	100

Table 2, 3 and 4 showed gender difference in depression, self-esteem and cognitive distortions. The inferential statistics revealed that there are significant differences between gender in regards with depression, self-esteem and cognitive distortions with t (148) = (3.038, p<.05). The mean score for boys were M =67.150, SD = 6.86 in comparison with girls M= 70.978, SD = 7.99. While for self-esteem is t (148) = (2.019, p<.05) with mean score for boys is M =23.367, SD = 3.85 while girl's mean score is M =27.955, SD = 4.41. As for the cognitive distortions, the t-test resulted in t-value of t (148) = 2.479. p<.05 with the mean scores for boys and girls are M =75.317, SD = 22.35, M =85.556, SD = 26.27 respectively.

Table 2: T-test results on depression based on gender

Gender	N	Mean	SD	df	t
Male	60	67.15	6.86	148	3.038*
Female	90	70.978	7.99		

*p<.05

Results of this study showed that there are differences in depression among different gender with girls scored higher than boys which means that girls were prone to have depression in comparison to boys. The result supported previous literatures that also found the depression level are higher among girls than boys (Kelly et al 1999; Allison et al. 2001) and 1.7 times of girls with history of Major Depressive Disorder (MDD) compared to boys (Kessler et al. 1993). The study by Avison and McAlpine (1992) strengthened the findings as it stated that girls with depression were also having low self-esteem. In addition, the symptoms of depression tend to increase for girls while the symptoms has no changes for boys after the age of 13. This is best explained by Graber et al. (1997) considering puberty as the factor of depression onset. They found that girls who experienced puberty too early or too late were more likely to experience depression. This is because the group were aware of the existing conflicts in the relationship context. Besides that, those who achieved puberty at an early age were found to mix with deviant friends and those with antisocial behaviors (Caspi & Moffit 1991). It was also found that physical attraction were seen as a major concern for girls especially when they reached puberty. Thus, those girls who feel dissatisfied with their body image were more likely to experience depression. Other contributing factors to depression include past experiences, history of depression, social roles and culture, psychological attribution as well as coping skills will help in understanding the differences between genders in depression level. (Piccinelli & Wilkinson 2000).

Table 3: T-test results on self-esteem based on gender

Gender	N	Mean	SD	df	t
Male	60	29.367	3.85	148	2.019*
Female	90	27.955	4.41		

*p<.05

As for gender difference in self-esteem, results revealed that female have lower self-esteem as compared to male. This findings supported meta-analysis study by O'Brien (1996) which also found that male had a slightly higher self-esteem in comparison with girls. Harter (1999) provided a further information that stated the component in self-esteem scale plays its own role in contributing to self-esteem scale between genders. As for male, the physical and athletic factors

were the main factors for the high self-esteem among males whereas the cognitive ability is the main factor of self-esteem for females. As suggested by Quatman and Watson (2001), out of 7 domains of self-esteem, 5 of it were dominated by males indicating that males had a higher self-esteem than females. Likewise the previous literature, the two domains which has no significant gender differences were the academic competence and popularity among peers (Simmons et al. 1979). The study explained the differences by suggesting that males had a higher confidence and mastery while the attribution made by females towards their achievement is based on luck and easy task. Due to that, in regards to female context, the relationship between self-esteem and depression were stronger in comparison with males (Quatman & Watson 2001). Joseph et al (1992) explained that the luck concept were developed among females due to the social status held by women which cause them to always follow others and suits with it. Hence, they were controlled by their surrounding and believed that their luck is depending on others. As they felt so, dependency is the main aspect in the development of self-esteem among females and cause it to be low. Eagly (1987) added that the social roles held by female is different than male in which female tend to be more concern and give more commitment in society in which explained the idea of social influence towards their self-esteem. Joseph et al. (1992) support the argument that the cultural and norm of the society in explaining the roles of female in the society will influenced their personality. The social interaction as well as the individual development were identified as contributor to the development of individual personality including self-esteem.

Table 4: T-test results on cognitive distortion based on gender

Gender	N	Mean	SD	df	t
Male	60	75.317	22.35	148	2.479*
Female	90	85.556	26.27		

*p<.05

Results of this study also showed female had a higher cognitive distortion in comparison with male. Nasir et al. (2004) study showed a significant differences between genders in regards to cognitive distortions in which female had a higher score than male. Briere (2000) provides the explanation behind this by suggesting that past experiences of an individual influenced their cognitive functioning. The study suggested the traumatic experiences such as physical or sexual abuses are prone for an individual to experience higher cognitive distortions. Catherine et al. (2005) added that female tend to blame themselves due to the traumatized events and eventually caused their cognitive functioning to be distorted. Negative past events were found to be related to cognitive distortion in a way that female had a stable attribution style towards the event indicating a distorted thinking. This explained the phenomenon that female are more likely to experience negative past events and have a vivid memory of emotional events in the past (Hankin & Abramson 2001, Davis 1999).

In addition, the idea of gender socialization also explain the cognitive distortion among different genders (Fivush (1991), Pomerantz & Rubke (1998). They argued that parental roles contributed to the development of cognitive processing in a way that they love to share their misery to their

daughters than the sons and a strict parenting style practiced more towards their daughters as compared to their sons. Gender socialization influence the inclination towards self-blame and the feeling of responsible over the event which often experienced by the girls. Although the consequences were out of their hand, they are most likely to blame themselves which presented the cognitive distortions experienced by them. With the association between cognitive distortions with depression, it was suggested that girls are more likely to experience them in comparison with boys.

This study also examine the relationship between self-esteem with depression, cognitive distortions with depression and also self-esteem with cognitive distortions. Pearson analysis were carried out to examine these relationship between the three variables. Table 5 revealed the results that indicate the significant negative correlation between self-esteem with depression with r= -.469, p<.05. There were also significant positive correlation between cognitive distortions and depression (r = 0.660, p < .05) which indicated that the higher the cognitive distortion, the higher the depression. The relationship between self-esteem and cognitive distortion which revealed that self-esteem were negative correlated with cognitive distortion (r= - 0.673, p < .05) which means that the higher the self-esteem, the lower the cognitive distortion.

Table 5: Pearson Correlation for relationship between self-esteem, cognitive distortion and depression

Variables		
	Depression	Cognitive distortion
Self-esteem	r= - 0.469*	r= - 0.673*
Cognitive distortion	r= 0.660 *	

The findings of this study supported the studies by Nasir et al. (2010); Nasir et al. (2004) on juvenile delinquents and prostitutes respectively, which also revealed that there exist the relationship between self-esteem and depression. Tennen et al. (1987) explained the low self-esteem contributed to the depressive attributional style which were the internal attribution, stable and global among university students and clinical samples. The findings strengthen the hopelessness model proposed by Abramson et al. (1978) in which suggesting that the depressed individual will attribute the negative events as their responsibility in which causes the lowered self-esteem. Besides, they often feel incompetent and has no self-value that contribute to their distorted thinking. This supported Beck's Theory of Depression which stated the idea that an individual with distorted thinking tend to have negative view and often predict failure in life as well as feeling of hopelessness of their future. Seligman et al (1978) also proposed the link between self-esteem and cognitive distortions in which those with distorted thinking tend to associate the negative events with personal factor, generalizing self-incompetency to every situation, and put failure as fixed and incapable of changing it. The internal thinking style caused the feeling of hopelessness within individual which contributed to the low self-esteem (Clark et al. 1999).

Further analysis were conducted by carrying out simple regression in which prove that self-esteem is a predictor of depression with F (1,148) = (41.716, k<.05) r² = .220 indicating 22% of depression contributed by self-esteem variable. Then, regression analysis provide a significant result with F (1,148) = (114.484, k<.05) r² = .436 proved that cognitive distortion can predict depression with 46% of the variance contributed by cognitive distortions. Lastly, a significant positive correlation between self-esteem and cognitive distortion indicating that both variables were possible to predict one another. A simple regression analysis were conducted and a significant result were found for both variables in which suggesting that both were able to predict one another.

Conclusion

This study focused on the relationship between self-esteem, cognitive distortions and depression among adolescents in which resulted in a significant relationship between the three variables. Gender differences were also tested on the depression, self-esteem and cognitive distortion and revealed that females were higher as compared than males for all three variables. Implications of the findings were found to be helpful for the professional helpers to improve their services and treatment plan. Besides, this study also help the society to heightened their awareness of their own mental health and be more cautious on their well-being especially the younger generation. The institutions also benefit from the research in a way that they were able to create an effective strategy to curb delinquency and anti-social behavior among students and adolescents.

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