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The Relationship between depression and emotional intelligence among a sample of Jordanian children

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Abstract

The purpose of this study was to examine the relationship between depression and emotional intelligence among children. A Jordanian translation of the children's depression Inventory (CDI) which is a self-report measure of depression was used in this study. The Inventory contained 27 items that assess affective, cognitive and behavioral symptoms of depression. The basic sample on which the (CDI) were applied on consisted of 619 (365 female and 254 male) at sixth grade from both public and private schools in Amman city. According to the CDI and by using a cut-off score of 19 or more, 54 children (33 female and 21 male) with a prevalence rate of 9% were considered as severely depressed.

Accordingly, severely depressed students were administered the BarOn Emotional Quotient inventory: Youth Version (BarOn EQ-i: YV), a self-report instrument designed to measure emotional intelligence for young people aged 7 to 18 years. The BarOn EQ-i consists of 60 items distributed across Intrapersonal Scale, Interpersonal Scale, Adaptability Scale, Stress Management Scale, Total EQ. The study revealed two major findings. First, there were statistically significant differences between males and females in the Stress Management Scale and Total EQ Scale, as a result, depressed females showed lower level of emotional intelligence than males. Second, there were no significant differences between males and females in either intrapersonal, interpersonal and Adaptability Scales.

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1. Introduction

Emotional intelligence is strongly related to healthy psychological functioning. A number of studies (Atkinson & Hornby, 2002; Fenandez-Berrocal et al., 2006) suggest that clinically depressed children regulate emotions differently than non-depressed children. Research into the nature and characteristics of depression in adults (Kovacs & Beck, 1977; Cantwell, 1983; Hodges & Siegel, 1985; Digidon & Gotlib, 1985; Mash & Wolfe, 1999) has provided an important framework for much of the recent investigations into childhood depression. Depressed children are found to be more socially inept; to have fewer friends; to be less liked; and to have more trouble in forming relationships with other children. They seem unable to label their feelings accurately, showing instead a sullen irritability, impatience and anger, especially toward their parents. Another consequence of depression in these children is poor school performance such as poor concentration, and loss of usual work in school subjects with a drop in grades, loss of usual interest in activities, incomplete classroom assignment, avoidance of homework activity and disruptive behavior. In particular, there can be an increased risk of poor academic performance, decreased

productivity, fatigue and impaired social functioning (DSM IV, 1994; Chen et al., 1995; Compas, 1997; Gillbert, 1998; Ivarson, 1998).

Given the theoretical importance of emotional intelligence in predicting psychological adjustment, it is not surprising to find a strong correlation between emotional intelligence and general psychological well-being which is perceived in this study in depression (Goldman et al., 1996; Fenandez-Berrocal et al., 2005). Relationship between emotional intelligence and emotional variables such as depression, anxiety and mental health has been well documented in child and adult samples (Garber, et.al, 1993; Nolen-Hoekema, 2000; Mayer, 2001; Reinherz, H. et al., 2003). For instance children with poor emotional adjustment report greater attention to their emotions, lower emotion clarity (understanding of one's emotional states), and an inability to regulate their own emotional states (Salovey, 2001). On the other hand, children that reporting greater emotional clarity and a greater ability to repair their own emotional states report higher levels of self-esteem (Salovey, et al., 2002). However, Slaski and Cartwright (2002) found that people who scored higher in emotional intelligence scale suffered less subjective stress, experienced better health and well-being, and demonstrated better management performance.

In an earlier study, Goleman (1995) found that poor emotional intelligence skills lead to increased depression. People who have a history of clinical depression had lower levels of brain activity in the left frontal lobe and more activity in the right than did people who had never been depressed. All incoming data to the brain pass through the amygdala where they are instantly analyzed for their emotional value before going to the cerebral cortex for processing. Thus, a major locus of the ability to regulate negative affect appears to be the circuit between the amygdala and the left prefrontal cortex. So, individual differences in metabolic activity in the amygdala are associated with levels of distress, the more activity the greater the negative affect.

According to Mayer and Salovey (1997) depressed parents pass a number of deficits in parenting that may indirectly influence the development of their children's regulatory abilities. Compared with non-depressed mothers, depressed mothers tend to be more critical, hostile, negative and less emotionally expressive, and cooperative when they negotiate with their children and with adults. Given that depressed mothers' interactions model for their children how to regulate their own emotions, parents and children's strategies for managing depression are positively associated. Recently Fenandez-Berrocal and his colleagues (2006) have examined the relation between intelligence, anxiety and depression among adolescents; it was hypothesized that emotional abilities would predict psychological adjustment. The study revealed two main findings: First self-reported ability to regulate mood (emotional repair) was positively related to self-esteem. Second self-reported emotional intelligence was negatively related to level of depression and anxiety. The results provide support of the hypothesis that emotional abilities are important and unique contributors to psychological adjustment.

Children's depression has so far been paid insufficient attention in the Jordanian schools, because on one hand, they find it hard to accept that children may experience unpleasant psychological states such as depression. On the other hand, when we are talking about depression among children, we are labeling the child with a psychological disorder, which is not accepted to some parents in our culture. Furthermore, some parents ignore depression among children believing that it is a natural stage of the development process, which will disappear by time through growing up. To our knowledge, no studies in Jordan have been published to date that examine the relationship between childhood depression and emotional intelligence. Hence the overall purpose is to scrutinize the relationship between depression and emotional intelligence. Furthermore, the study has the specific aim, to get answer to the following question: what are the significant differences between depressed females and depressed males in manifest the emotional intelligence in each sub-scale of Emotional Intelligence Inventory (BarOn EQ-i:YV)?

2. Method

2.1. Participants

Participants in the present study are the children in the sixth grade aged 11-12 years in elementary schools who were received 19 or above scores on the Children's Depression Inventory (CDI). The children were chosen for the study sample from 14 schools (8 state & 6 private schools) in proportions representative of their residence in different living environments (city, semi-rural and rural areas). The original sample on which the study tools were applied consisted of 619 children. After reviewing the answering questionnaires it was found that 25 children's

questionnaires were excluded because children had not answered most of the questions. Therefore, the sample of the present study consisted of 594 children.

2.2. Measures

2.2.1. Children's Depression Inventory

Kovacs's Children's Depression Inventory (CDI; Kovacs, 1980/1981) a paper and pencil measure which is a downward extension of the Beck Depression Inventory for adults. The Jordanian translation of the Children's Depression Inventory (CDI) was used in this study (Ghishan, 1994). It includes 27 items that assess affective, cognitive and behavioral symptoms of depression, no item excluded. The children filled in a 27-item questionnaire during a school lesson. The researcher had read the items to the children in the classroom. For each item, the child is asked to endorse the one of the three statements that best applies to him or herself during the last two weeks. For example, for one of the items, a child is asked to select one of each set of these alternatives: (a) I am sad once in a while (b) I am sad many times (c) I am sad all of the time. The child's score on the Children's Depression Inventory (0, 1 or 2) is based on the more extreme statement that is endorsed in the direction of depression and the theoretical total score can range from 0 to 54. Scores on the inventory can be divided as follows: Non-depressed (0-18); Severe depression (19 and above).

A cut off score of 19 has been suggested as a criterion level for defining clinical levels of depression based on initial scale development and normative studies of the CDI (Kovacs, 1992). However, depressed children were defined as children with a self-report CDI score of ≥ 19 . For the purpose of the present study, recommended of a cut off score of 19 based on the exploratory study and the opinion of the experts in the field suggest that a cut off score of 19 or more to be the criterion to distinguish between depressed and non-depressed children.

2.2.2 The BarOn Emotional Quotient Inventory

Youth Version (BarOn EQ-i: YV, 1997) is an easily administered self-report instrument designed to measure emotional intelligence to young people aged 7 to 18 years. The BarOn EQ-i: YV is based on the Bar-On model of emotional and social intelligence, which also formed the theoretical basis of the Bar-On Emotional Quotient Inventory (EQ-I; Bar-On, 1997; in press) The BarOn EQ-i:YV consists of 60 items that are distributed across the scales: Intrapersonal Scale; Interpersonal Scale; Stress Management Scale; Adaptability Scale; Total EQ.

Interpretation of the BarOn EQ-i: YV results require that the reader have a general understanding of emotional intelligence. Given such an understanding, the obtained results are easy to interpret. For example, an individual with a standard score below 80 on the Total EQ scale demonstrates an underdeveloped capacity for emotionally and socially intelligent behavior, with ample room for improvement. Standard scores for the BarOn EQ-i: YV have a mean of 100 and a standard deviation of 15. It should be noted that the standard scores used are linear standard scores. Linear standard scores do not transform the actual distribution of the variables in any way, and hence, while each variables has been transformed to have a mean of 100 and a standard deviation of 15, the distributions of the scale scores do not change, as a general guide, standard scores can be interpreted using the guidelines provided in Table 1 (BarOn EQ-i: YV, 1997).

Table 1 Interpretive Guidelines for Standard Scores

| Range | Guideline |
|----------|---|
| 130+ | Markedly High – atypically well developed emotional and social capacity |
| 120-129 | Very High – extremely well developed emotional and social capacity |
| 110-119 | High – well developed emotional and social capacity |
| 90-109 | Average – adequate emotional and social capacity |
| 80-89 | Low – underdeveloped emotional and social capacity, with some room for improvement |
| 70-79 | Very Low – extremely underdeveloped emotional and social capacity, with considerable room for improvement |
| Under 70 | Markedly Low – atypically impaired emotional and social capacity |

3. 3. Results

The results of children scores on the CDI shows that by using a cut-off score of 19 or more 54 children (33 female and 21 male) with a prevalence rate of 9% forms a group with severe depression as shown in Table 2.

Table2. The scores of the children on the Children's Depression Inventory

| Categories based on sum of all item scores (CDI) | boys | girls | total |
|--|-------------|-------------|-----------|
| Score from (0-18) | 231 (91.6%) | 309 (90.4%) | 540 (91%) |
| Score from (19 or more) | 21 (8.3%) | 33 (9.6%) | 54 (9%) |
| total | 252 | 342 | 594 |

The results of this study also show that there are no significant differences between boys and girls in the prevalence of depression. Females rated slightly higher than males in prevalence of depression but these differences are not significant as shown in Table 3.

Table3. The differences between sex in the prevalence of childhood depression

| Prevalence of depression | male | female | df | sig |
|--------------------------|------|--------|----|------|
| percent | 8.3% | 9.6% | 2 | .357 |

Accordingly, severally 54 depressed children were administered the BarOn Emotional Quotient inventory: (BarOn EQ-i: YV, 1997). However, an effort was made in this study to draw the differences between depressed males and depressed females in manifesting emotional intelligence in a certain sub-scale on the BarOn Emotional Quotient Inventory. To show these differences T- test was used in this study. The finding of these differences will be presented in Table 4.

Table4. The differences between males and females in the BarOn Emotional Quotient Inventory

| Scale | Sex | No | Mean | Std. deviation | Range | t | df | Sig (2-tailed) |
|-------------------------|--------|----|--------|----------------|-------|-------|----|----------------|
| Intra-personal Scale | Male | 21 | 14.000 | 3.178 | 99 | 1.389 | 52 | ,171 |
| | Female | 33 | 12.575 | 3.953 | | | | |
| Inter-personal Scale | Male | 21 | 36.381 | 4.224 | 93 | 1.494 | 52 | ,141 |
| | Female | 33 | 33.878 | 6.881 | | | | |
| Stress Management Scale | Male | 21 | 29.857 | 4.138 | 85 | 2.235 | 52 | ,030 |
| | Female | 33 | 26.969 | 4.908 | | | | |
| Adaptively Scale | Male | 21 | 30.095 | 4.011 | 110 | 1.108 | 52 | ,273 |
| | Female | 33 | 28.272 | 6.811 | | | | |
| Total EQ | Male | 21 | 54.313 | 4.024 | 84 | 2.469 | 52 | ,017 |
| | Female | 33 | 49.969 | 7.377 | | | | |

Results of this study show that there are no significant differences between depressed males and depressed females on inter-personal, intra-personal and adaptively scale in the BarOn Emotional Quotient Inventory. The results of this study also indicate that there are statistically significant ($p < .05$) differences between depressed males and depressed females in the stress management scale in the BarOn Emotional Quotient Inventory. Table 4 shows that depressed male score higher (Mean=29.857) than depressed females (Mean=26.969). The results of this study also indicate that there are statistically significant ($p < .05$) differences between depressed males and depressed females in the Total EQ scale in the BarOn Emotional Quotient Inventory. Table 4 shows that depressed male score higher (Mean=54.313) than depressed females (Mean=49.969).

4. Discussion

The results of this study revealed two main findings that provide clear picture about the prevalence of depression among children and how depressed children can perceive, use, understand and manage their emotions to. First, Information about the prevalence of childhood depression is essential for planning mental health care and developing strategies for intervention. Our study provides data showing that in the current sample of 12 year-old children about 9% might be expected to meet the criteria for depressive symptoms which is relatively higher. Differences in methods of diagnosing childhood depression in conjunction with differences in sample size may account for some of the discrepancy in rates. On the other hand, according to our viewpoint, the situation of children in Jordan is not like other countries, because Jordan has a sensitive position between the countries in the Middle East that made it under the influences of many political, economical and social changes. These changes can have a profound effect on the child's personal and psychological world. Bronfenbrenner and Mahoney (1975) indicated that these conditions can affect a child's development, and he believes that the first step in any strategy of intervention must be to provide the family with adequate health care, nutrition, housing, and employment. We might be tempted to pass this need by feeling that children of today are fed well, and have adequate shelter and clothes. Moreover, Maslow believes that we all have certain basic needs that must be met in order for us to become self-actualizing or to reach our potential in all areas of development. If our lower-level basic needs are not met, we will be unable to meet higher-level needs. His ideas suggest some possible reasons why our children are experiencing higher rate of depression.

Second, the findings of the current study indicated that depressed male tend to have higher emotionally intelligence than female. The results showed that depressed male score higher in Total EQ Scale and Stress Management Scale. Sanchez, M. T. and his colleagues (2008) found that females tend to have higher emotional intelligence than males. The probable reason for that due to the fact that emotional intelligence deals with managing and expressing one's emotions as well as social skills. Since females tend to be more sensitive, expressive, and perceptive and have greater empathy than male, so their emotional intelligence ought to be higher than that of males. This is perhaps because of the society, which socializes the two genders differently. Despite the evidence indicating that females generally have a higher emotional intelligence than males. Many studies (Extremera & Fernandez-Berrocal, 2002; Fernandez-Berrocal et al., 2005; Austin et al., 2005; Bindu and Thomas, 2006) indicated that gender differences are being reduced in new generations due to the influence of culture and education. In addition our findings confirm and extend previous results which indicated that males are better at problem-solving skills, regulating emotions and more skillful at controlling impulses and tolerating stress than females.

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