

Predictive Ability of Social Intelligence from Attachment Styles

Alghamdi Michael A.¹, Al.Qudah Mohammad F.¹, Albursan Ismael S.¹, Abduljabbar Adel S.¹ & Bakhiet Salaheldin F.¹

¹ King Saud University, Saudi Arabia

Correspondence: Albursan Ismael S., King Saud University, Saudi Arabia. E-mail: Ismael_bursan@yahoo.com

Received: October 13, 2016

Accepted: October 31, 2016

Online Published: November 7, 2016

doi:10.5539/ijps.v8n4p131

URL: <http://dx.doi.org/10.5539/ijps.v8n4p131>

Abstract

With our present study we aimed to explore the prevalent attachment styles among female university students and to investigate the extent to which attachment styles (secure, avoidant and anxious-ambivalent) may interpret differences in Social Intelligence (SI). Our subjects were 404 female students randomly selected from the preparatory year and the fourth year at King Saud University in Riyadh. We used and extracted the psychometric characteristics of the Adult Attachment Styles Scale and the Social Intelligence Scale. Data revealed that the most prevalent attachment style among our sample of students at King Saud University was secure attachment followed by avoidant and then anxious-ambivalent attachment. Analysis of multiple regression showed that both secure and anxious-ambivalent attachment contributed significantly to predicting SI. Avoidant attachment, on the other hand, did not prove to be a strong SI predictor.

Keywords: social intelligence, attachment styles, KSA, university students

1. Introduction

The issue of “attachment” has captured the attention of researchers concerned with development and socialization, e.g., Freud, Wolpe, Ainsworth, Harlow and Lorenz. A reason for this interest is that attachment as a social-emotional behavior style affects the development and mental health of a person throughout life (Arremawi, 2011). In his attachment theory, Bowlby (1991) suggested that humans are innately inclined to establish intimate relationships with given people in his/her social milieu. This inclination, most evident in the mother-child relationship, remains effective throughout life and is essential for survival.

Early research in this area focused on attachment to the mother, its styles and its relation to various behavioral, cognitive and social aspects (Ainsworth, Blehar, Waters, & Wall, 1978). The application of the principles and concepts of attachment theory to adult relationships led to significant discoveries about the dynamics of human relations. It also helped with the discovery of social-emotional origins of human adaptive and maladaptive characteristics (Cassidy & Shaver, 1999).

Ainsworth and colleagues (Ainsworth et al., 1978) studied attachment styles among infants and noted how these styles varied according to the feeling of security or anxiety in the relationship with the mother. Empirical evidence was found for an apparent match between such styles and the subsequent attachment styles in friendship and emotional relationships among adults. Researchers also found that attachment styles relate to behavioral, cognitive, emotional and social aspects in interpersonal relationships and that they relate to an individuals’ feelings and social interactions (Shaver & Brennan, 1992).

Attachment styles in adults are extensions of styles established in childhood. A child is exposed to different forms of socialization that affect his/her attitudes towards parents, self and others. These attitudes underlie the formation of intimate and social relationships in later stages of development. Attachment is the aspect of social and emotional behavior in young children that presents as the most significant for subsequent stages of development. This aspect of behavior is manifested in a child’s attachment to his/her caregiver as the most significant person for a child, especially if this is the child’s mother (Al-Maleki, 2010). The consensus among researchers is that attachment manifests as one of three styles: 1) “secure” attachment in which the individual trusts others and feels secure in their closeness, 2) “anxious-ambivalent” attachment where the individual shows excessive interest in others and excessively demands their closeness, and 3) “avoidant” attachment in which the individual does not like to be close to others or share intimacy with them.

Attachment underlies subsequent social relationships and interactions. It is affected by the kind of relationships experienced by a child which shape his/her ability to interact with others and an awareness of their own feelings and the feelings of others. This is what is meant by Social Intelligence (SI), which is affected by the attachment styles that characterize one's social relationships. SI according to Abo-Donia (1998) is a mental ability essential for lifelong social interaction. Similarly, Zahran (2000) suggests that SI refers to the ability to conceive social relations, to comprehensively interact with others and to behave appropriately in different social situations and settings. SI, therefore, is necessary for social adjustment and success in social life.

Social intelligence is an important issue in psychology and has therefore received considerable research interest. It has become of greater significance in our modern society with more rapid social changes and more complicated social challenges. Because SI can be practiced and observed, individuals may be viewed as more or less socially intelligent. By displaying SI an individual can impress others with effective social behaviors desirable in his/her community (Abo-Amsha, 2013).

Assuming the significance that research has revealed concerning attachment and its effect on an individual's social relations and interactions and their psychological and social adjustment, we explored the relationship between attachment styles and SI among female students attending King Saud University. To the best of our knowledge, few studies have tackled this topic, e.g., Al-Ollwan (2011), and Deniz, Hamarta and Ari (2005). These two studies and several others investigated the relationship between attachment styles and different aspects of SI, e.g., emotional intelligence, social skills, social competence, social interaction and social anxiety.

A study by Khori (2004) indicated a positive relationship between an individual's secure attachment style and his/her marital adjustment. However, a negative relationship was found between avoidant attachment and marital adjustment. Results also showed that secure individuals often get married to each other, and that the same applies to insecure individuals. Also, in a study by Al-Ameri (2015), a statistically significant correlation was detected between secure attachment and the development of the psycho-social ego. Conversely, a negative relationship was found between insecure attachment and the powers of the ego. Furthermore, a study by Al-Omeiri (2015) detected a positive correlation between neurosis and anxious attachment, and between extroversion and devotion on the one hand and secure attachment on the other. A negative relationship was also detected between submission and devotion on the one hand and avoidant attachment on the other.

Abo-Ghazal and Flwah (2014) found that secure attachment is the most prevalent of all attachment styles among Jordanian adolescents. They found differences in avoidant attachment between males and females in favor of females. Results also indicated a significantly positive relationship between avoidant attachment and negative attitude toward problems. Besides, a significant positive relationship was found between secure and avoidant attachment on the one hand and avoidant problem solving and rational problem solving on the other.

Also, the studies conducted by Arslan, Arslan and Ari (2012), and Zeyrek, Gencoz, Bergman and Lester (2009) reported a significant positive relationship between secure attachment and problem solving style. Secures attachment correlated negatively with negative problem solving. Also, busy and frightened attachment negatively correlated with negative problem solving, poor self-confidence and unwillingness to assume responsibility.

The study by Ayda (2008) reported a negative correlation between secure attachment and depression in adolescents. Anxious attachment was the attachment style that significantly contributed to depression in the same sample. Similarly, Muras (1996) documented higher levels of depression and anxiety in adolescents with anxious and avoidant attachment compared to adolescents with secure attachment.

One of the few attachment studies conducted is Al-Harout's (2000) wherein it was reported that children with secure attachment are significantly distinct from children with avoidant attachment on social competence variables. Similarly, and he found that individuals with secure attachment outnumber individuals with avoidant and anxious-ambivalent attachment on the quantity and quality of social interactions. The quality of social interactions was measured by their value and resultant satisfaction and enjoyment in the company of others. The study also found that individuals with anxious-ambivalent attachment have higher incidence of depression and social anxiety than individuals with secure and avoidant attachment.

Joseph and Allen (2002) studied attachment and autonomy as predictors of the development of social skills and delinquency during mid-adolescence. Secure attachment proved to be a strong predictor of better social skills. Insecure attachment, on the other hand, was accompanied by a noticeable increase in delinquency during mid-adolescence.

In this same respect, Ditommaso, Brennen-McNulty, Ross and Burgess (2003) report a significant positive relationship between secure attachment and social skills. Conversely, they found a negative relationship between

anxious-ambivalent attachment and social skills. A significant relationship between secure attachment and Emotional Intelligence (EI) was also found by Hamarta, Deniz and Saltali (2009). Secure attachment was found to be a statistically significant predictor of EI.

Al-Maleki (2010) reported a significant relationship between anxious attachment and secure attachment on one hand and self-efficacy on the other. Anxious attachment and secure attachment were strong predictors of self-efficacy. It was revealed that avoidant attachment and secure attachment relate significantly to social skills. No significant relationship was detected between anxious attachment and social skills. Secure attachment, which was the most prevalent, proved to be a strong predictor of social skills.

In a study conducted by Brumariu and Kerns (2010), children with secure attachment displayed lower levels of social and scholastic anxiety. However, they displayed a higher level of separation anxiety. Finally, Al-Ollwan (2011) found a significant correlation between Emotional Intelligence (EI) and both social skills and attachment styles (secure, avoidant and anxious). Researchers also reported a significant correlation between social skills and secure attachment.

Our review of relevant literature highlights the significance of the present study whereby we studied attachment styles and SI. These two variables are significant for the development of social relations wherein a better understanding of such can assist with finding solutions to social problems encountered by individuals and society. The investigation of attachment styles can also sensitize us to better ways of reducing psychological problems and social disorders in the general population.

The survey of relevant literature assisted us in forming a clearer picture of the important aspects we undertook for our present study. The studies of Lawrence and Donald (1990), Joseph (1992) indicated that social competence and social skills are important aspects of SI. The studies we reviewed helped with the formulation of questions and hypotheses for our research and assisted us with the selection of suitable statistical techniques and the interpretation of results. The studies of Abo-Ghazal and Jaradat (2009) and Al-Manaberi (2010) were of special value for the development of the present study's tools.

2. Statement of the Problem

To the best of our knowledge, few studies have undertaken researching the relationship between attachment styles and SI of adults in Arabic and Saudi universities. This important issue therefore needs to be further researched in the Arabic environment. The need for the present study was also fueled by the fact that attachment plays an important role in a person's life. It is the basis on which an individual establishes his/her future relations. Individuals with secure attachment are open to learning and change whereas individuals with insecure attachment are not as open to new information (Mikulincer, 1997).

Attachment styles proved to correlate with many variables that facilitate social interaction and enhance psychological adjustment, some of which include social skills and self-efficacy. In this respect, Ditommaso et al. (2003), Wei, Russell and Zakalik (2005), and Simpson (1990) assert that individuals with secure attachment possess better social skills and social competence. They treat others with trust and feel satisfied with their relations and this promotes beneficial social interaction. Conversely, individuals with insecure attachment are characterized by both poor social skills and social competence. Distrust and dissatisfaction govern their relations with others, which hinders their social interaction and negatively affects their self-efficacy.

Social intelligence is a form of intelligence that relates directly to one's life, psychological adjustment and interaction with others, this form of intelligence is made up of a number of abilities that enable the individual to interact with his/her environment successfully. The SI construct, according to Silver and Lee (2001) and Marlowe (1986), includes the following components: 1) social sensitivity, 2) social foresight, 3) social skills, 4) social competence, 5) social effectiveness, 6) sympathy, 7) emotional skills, 8) social anxiety, 9) social adjustment, and 10) the ability to interact with others. Hence, a socially intelligent individual is one who establishes secure social skills and successfully interacts with others. Such an individual can integrate well with his community, which enables him/her to achieve the highest levels of personal, psychological and social adjustment (Asqoul, 2009). Furthermore, Johnson (2008) asserts that emotional intelligence is a form of SI. Other aspects of SI include social skills, competence, knowledge, effectiveness, behavior, anxiety and interaction. These components can therefore be predictors of SI. The aforementioned highlights the need to investigate the relationship between attachment styles and SI as recommended by researchers, e.g., Mikulincer, Shaver and Pereg (2003).

We explored the extent to which attachment styles can predict SI among King Saud University female students. More specifically, we addressed the following questions: 1) Which attachment styles are most prevalent among the

female students at King Saud University? 2) Can attachment styles (secure, avoidant, anxious-ambivalent) interpret differences in social intelligence among the female students at King Saud University?

3. Significance of the Study

The significance of the study is derived from the following considerations:

- 1) The significance and novelty of the issue of adult attachment styles. To the best of our knowledge, there are limited studies exploring the relationship between attachment styles and social intelligence. Our study is therefore expected to offer opportunities for further research.
- 2) Attachment has several styles that should be examined concerning their nature and their relationship with other variables like social intelligence. This offers new insights for counselling and guidance services in our complex modern society.
- 3) Attachment is a significant and multi-faceted topic. Most studies assert the significance of attachment in childhood and highlight its manifestation, either positive or negative, on adults. These studies have also reported on the importance of employing attachment to eliminate threat and to attain the feeling of security needed for lifelong psychological well-being and adjustment.
- 4) The investigation of the relationship between attachment and social intelligence is expected to have educational implications. It may direct the attention of decision makers in educational institutes to factors that lead to insecure attachment. Perhaps this would facilitate more careful attention being paid to students with insecure attachment which in turn would aid the student's achievements and social competence.
- 5) Our study is expected to adapt the tool for assessing attachment styles to the Saudi environment. This tool will then be available for Saudi researchers going forward.
- 6) The results of our study may also add insights to future endeavors to design counselling and remedial programs for enhancing secure attachment and social intelligence among adults and individuals from other age groups.

4. Study Terms

- 1) Attachment Styles—attachment styles refer to the score a student receives on the Attachment (secure, avoidant, anxious-ambivalent) Styles Scale.
- 2) Social Intelligence—social intelligence refers to the score a student receives on the Social Intelligence Scale.

5. Limitations of the Study

The study is limited to: 1) Investigating the relationship between attachment styles and social intelligence, 2) female students at the preparatory and fourth year at King Saud University, 3) the second term of the academic year 2013-2014, and 4) King Saud University in Riyadh.

6. Method

6.1 Sample

The population of the present study were all undergraduate female students enrolled in the second semester of the academic year 2013-2014 at King Saud University (N = 7178). A representative sample of the study population was selected randomly. The sample consisted of 404 female students at the preparatory year (age average = 19 years) and the fourth year (age average = 22 years). This sample represented 14% of the total population. Questionnaires were given to 450 potential participants with a total of 430 completed questionnaires returned. Twenty six questionnaires were excluded for missing data and unanswered items among other reasons leaving a usable sample of 404 students from all departments.

6.2 Tools

The following tools were used in the present study:

6.2.1 An Adult Attachment Styles Scale

The researchers used the Al-Yarmouk Adult Attachment Styles Scale developed by Abo-Ghazal and Jaradat (2009) after surveying attachment scales in published research, e.g. (Hazan & Shaver, 1987; Becker & Billing, 1997; Bakker, Van Oudenhoven, & Van der Zee, 2004; and Huntsinger & Luecken, 2004). The scale was standardized on a sample of undergrad students at Al-Yarmouk University in 2009. It consists of twenty 6-point Likert scale items. Each response was associated with a point value (5 = "strongly agree" and 0 = "strongly disagree"). The items of the scale are distributed under three main styles: 1) secure attachment: this style shows the extent to which one's view of self and others are positive. It consists of 6 items. Thus its total score ranges from 0 to 30. Example items from this style are "It is easy for me to establish intimate relations with others" and "I know I will find

someone to help whenever I need help". 2) anxious-ambivalent attachment: this style shows to what extent one's view of self are negative and of others are positive. It consists of 7 items. The score ranges from 0 to 35. Example items from this style are "I think I love others more that they love me" and "Others do not respect me as much as I respect them". 3) avoidant attachment: this style shows to what extent one's view of self are positive and of others are negative. It consists of 7 items. The score ranges from 0 to 35. Example items from this style are "It is important for me to be independent from others" and "I don't worry when I am alone, as I don't need others".

6.2.2 Validity and Reliability of the Original Attachment Scale

Validity: to establish the validity of the original Attachment Styles Scale, it was submitted to six professors at the Educational and Counseling Psychology Department at Al-Yarmouk University. Based on the referees' comments, three items were reworded. All the referees agreed that items represented the styles they belonged to. Furthermore, the validity of the scale was established by computing the correlations between items and the styles they belonged to. Correlation coefficients range from .52 to .69, all significant at the .05 level.

Reliability: the reliability of the Attachment Styles Scale was established by computing the internal consistency of its dimensions. Cronbach-alpha coefficients were .76, .64 and .57 for anxious-ambivalent attachment, avoidant attachment and secure attachment respectively.

6.2.3 Validity and Reliability of the Present Study Attachment Scale

Validity: to establish the validity of the Attachment Styles Scale in the present study, it was submitted to ten specialists in educational psychology, development, and measurement and evaluation at King Saud University. They were invited to judge the relevance of items to their target dimensions and the clarity of their wording. The researchers set an agreement level of 80% to delete or add items. There was a consensus concerning the relevance of items to their dimensions. However, some items were reworded to address the female students. This indicated that the validity of the scale was acceptable for our study.

Furthermore, the scale was administered to a pilot sample of 60 female students at King Saud University (not the students who participated in the study). Correlations between items and their dimensions were then computed. Correlation coefficients ranged from .405 to .757, all significant at the .01 level. This indicated that the scale was therefore quite reliable to be used in the present study.

Reliability: to establish the reliability of the Attachment Scale for our research, it was administered to a pilot sample of 60 female students at King Saud University (the same pilot sample used for establishing validity). The internal consistency between items and their dimensions was then checked by Cronbach-alpha and split-half techniques. These statistics are shown in Table 1:

Table 1. Cronbach-alpha and split-half reliability coefficients of the Adult Attachment Styles Scale

No.	Styles	Reliability Coefficients	
		Split-half	Cronbach-alpha
1	Anxious-ambivalent attachment	.789	.820
2	Avoidant attachment	.769	.843
3	Secure attachment	.740	.761

6.2.4 The Social Intelligence Scale

After we surveyed several scales assessing SI, we selected the scale developed by Al-Manaberi (2010) for our study. The dimensions of this scale and its wording (social knowledge, social effectiveness and social competence) were of high relevance and convenience to our research objectives as it was standardized on a comparable Saudi sample.

The scale has 42 multiple-choice items measuring three dimensions of SI:

1) Social Knowledge: this dimension is measured by 12 items probing social conduct, traditions, values and rules. These 12 items described social situations measuring respondent's knowledge of social traditions, values and rules that would be considered socially acceptable in public life in general and on campus in particular.

2) Social Effectiveness: this dimension has 15 items assessing the respondent's ability to affect and take into consideration or appreciate others' feelings.

3) Social Competence: this dimension of SI is assessed by 15 items exploring the respondent's ability to establish successful social relations and behave appropriately and effectively in different social situations.

6.2.5 Validity and Reliability of the Present Study Social Intelligence Scale

Validity: the validity of the SI scale was established by administering it to a pilot sample of 60 female students at King Saud University. Correlations between items and their dimensions were then computed. Correlation coefficients ranged from .33 to .55, all significant at the .01 level. Furthermore, correlations between the dimensions and the total score were computed. Correlations ranged from .44 to .71, all significant at the .01 level. This indicated high construct validity. The scale could therefore be reliably used for our present study.

Reliability: to establish the reliability of the Social Intelligence Scale, it was administered to a pilot sample of 60 students. The internal consistency between the scale dimensions and the scale as a whole was then checked by Cronbach-alpha and split-half techniques. These statistics are shown in Table 2:

Table 2. Cronbach-alpha and split-half reliability coefficients of the Social Intelligence Scale

No.	Dimensions	Reliability Coefficients	
		Split-half	Cronbach-alpha
1	Social knowledge	.753	.787
2	Social effectiveness	.768	.783
3	Social competence	.863	.844
The whole scale		.739	.745

Table 2 shows that reliability coefficients resulting from Cronbach-alpha and split-half were quite high. Cronbach-alpha and split-half total reliability coefficients were .745 and .739 respectively. Cronbach-alpha coefficients for the scale dimensions ranged between .783 and .844. The corresponding split-half coefficients ranged from .753 and .863. All coefficients were therefore high, indicating that the scale is highly reliable. These results are in line with Al-Manaberi's (2010) study.

Scoring: we used a 4-point rating scale. Response 1, which represents the highest level of intelligent behavior, was allocated 4 points. Response 4, which represents the lowest level of intelligent behavior, was allocated 1 point. It is worth mentioning here that all the items were in random order and worded positively. Thus, the scores on this scale ranged from 42 to 168.

7. Data Analysis

Data were scored and analyzed using the SPSS Package. Descriptive statistics were used to answer the first research question. Finally, Person correlation coefficient and multiple regression analysis were used to answer the second question.

8. Results

8.1 Attachment Styles Prevalent among Students

To answer the first research question regarding prevalent attachment styles among female King Saud university students, means and standard deviations of respondents' responses on the Attachment Scale were computed. These statistics are presented in Table 3 below.

Table 3. Means and standard deviations of responses on the Attachment Styles Scale

No.	Attachment Styles	M	SD	Order
1	Anxious-ambivalent attachment	14.30	5.676	3
2	Avoidant attachment	21.32	4.529	2
3	Secure attachment	22.06	5.081	1

It is clear from Table 3 that the most prevalent attachment style among King Saud University female students is secure attachment ($M = 22.06$), followed by avoidant attachment ($M = 21.32$) and then anxious-ambivalent attachment ($M = 14.30$).

8.2 Interpreting Differences in Social Intelligence among Students by Attachment Styles

To answer our second research question about the extent to which attachment styles can interpret differences in SI among students, Pearson correlation coefficients were computed to examine the strength of the relationship between attachment styles and SI. These statistics are listed in Table 4 below.

Table 4. Correlation coefficients between Attachment Styles and SI

No.	Attachment Styles	Social Intelligence			
		Social Knowledge	Social Competence	Social Effectiveness	Total Score
1	Secure attachment	.155**	.175**	.047	.190**
2	Anxious-ambivalent attachment	-.073-	-.218**	-.074-	-.199**
3	Avoidant attachment	-.154**	.036	-.039-	-.067-

Significant at the .01 level

Evidenced by Table 4, there is a statistically significant ($p > .01$) positive relationship between secure attachment and social knowledge ($r = .155$), social competence ($r = .175$) and total social intelligence ($r = .190$).

Table 4 also highlights a statistically significant negative relationship between anxious-ambivalent attachment and social competence and total social intelligence.

Furthermore, a statistically significant ($p > .01$) negative relationship ($r = -.154$) was found between avoidant attachment and social knowledge.

To investigate the extent to which attachment styles can interpret differences in SI among students, the multiple regression analysis was computed. Data of these statistics are presented in Table 5.

Table 5. Multiple regression analysis for differences in SI by Attachment Styles

Dependent Variable	Predictors	Non-standard regression coefficient B	Multiple correlations coefficient R	Explained variance	f	Probability
Social intelligence	Anxious attachment	-.327.	.199.	.04.	16.58	.000.
	Secure attachment	.401.	.0272	.07.	15.00	.000.

It is obvious from Table 5 that both anxious and secure attachment explained 7% of the variance in SI. Anxious attachment explained 4% of the variance. This signifies that it significantly ($p > .001$) predicts social intelligence. Secure attachment explained 3% of the variance in SI. This value is also significant ($p > .001$). Avoidant attachment did not significantly predict SI.

9. Discussion and Recommendations

Previous research has revealed the significance of attachment styles on psychological and social adjustment motivating us to explore the relationship between attachment styles and social intelligence among female students attending King Saud University. Our data revealed that the most prevalent attachment style for female students at King Saud University is secure attachment, followed by avoidant and anxious-ambivalent attachment respectively. This means that in general the students' view of themselves and others are positive, and that security and satisfaction govern their relations with others. The students proved that they could establish trustful relations with others and do not feel anxious when close to others which is consistent Hazan and Shaver's (1987) view of secure

attachment. A possible explanation for this finding is that students enjoyed a warm and stable relationship with their mothers. This is consistent with Bowlby's (1969, 1973) assertion that warm and stable relations with mothers during early years is an indicator of secure attachment. Individuals who enjoy a close relationship with their mother acquire positive emotional experiences as they grow. These results are also consistent with studies conducted by Hazan and Shaver (1987, 1990), Abo-Ghazal and Jaradat (2009), Ashahwan (2002), Al-Maleki (2010), Khori (2004), Abo-Ghazal and Flwah (2014), and Al-Omeiri (2015). It is apparent that secure attachment is prevalent in many cultures or that it is of a universal nature.

We computed Pearson correlation coefficients to examine the strength of the relationship between attachment styles and SI and report that there is a statistically significant positive relationship between secure attachment and social knowledge, social competence and total SI. This indicates that a student's positive view of self and others are associated with higher SI and this consequently implies that students with secure attachment possess higher social skills, social effectiveness and social competence. Trusting and satisfying relationships with others on campus would make a student socially intelligent (Simpson, 1990) as such personal relationships promote social interactions. The positive view of self and of others that a student with secure attachment possesses would enable him/her to establish successful social relations with others. It is accepted that establishing understanding social relationships and cooperating with others are basic dimensions of SI.

This finding is in line with the findings reached in the study by Al-Harout (2000). It also concurs with the study of Ditommaso et al. (2003) and the study of Al-Maleki (2010) that reported a positive relationship between secure attachment and social skills. Finally, this finding is in line with the study of Al-Ollwan (2011) reporting a significant relationship between secure attachment and social skills on one hand and emotional intelligence on the other.

It is also clear that there is a statistically significant negative relationship between anxious-ambivalent attachment on one hand and social competence and total social intelligence on the other. Similar findings were reached in the studies conducted by Ditommaso et al. (2003) and Al-Ollwan (2011) where a negative relationship was detected between anxious-ambivalent attachment and social skills. However, this finding is inconsistent with the study by Al-Maleki (2010) that did not report a statistically significant negative relationship between anxious attachment and social skills. In addition, the results showed that a statistically significant negative relationship was found between avoidant attachment and social knowledge. This means that students with avoidant attachment have a lower level of social knowledge. The same finding was reached in the studies by Al-Maleki (2010) and Al-Ollwan (2011) where a negative relationship was found between avoidant attachment and social skills.

Analysis of multiple regression showed that secure attachment and anxious-ambivalent attachment contributed significantly to predicting SI. Avoidant attachment, on the other hand, did not prove to be a strong predictor of SI and these findings reveal that students with secure attachment have the highest level of SI. They possess better social skills and relations than do students with other styles of attachment. They are therefore more capable of establishing and sustaining relationships with others. Students with a negative view of self and others lack the social skills to establish and sustain relations with others.

This finding can also be interpreted in the light of the key role that self-efficacy plays in one's life. Social self-efficacy is one of the concepts that Bandura presented in his survey of the social and cognitive factors included in learning. It refers to one's belief regarding his/her ability to take the initiative in social communication and to establish new friendships. These beliefs mediate the relationship between anxious attachment, feeling, and poor social skills, which affects the level of SI (Mallinckrodt & Wei, 2005). Individuals with anxious attachment feel lower social effectiveness, which results in lower levels of perceived social support. This makes them feel lonely and incapable of social communication. This, in turn, leads to lower SI. Besides, individuals with higher levels of anxious attachment have negative internal working models towards self and are consequently more likely to have a lower level of social self-efficacy. As to self-understanding, it mediates the relationship between avoidant attachment and poor social communication. It plays a noticeable role in establishing new friendships and enhancing the level of SI. Studies reported a positive relationship between avoidant attachment and unwillingness to open disclosure (Collins & Read, 1990; Kobak & Hazan, 1991).

Results of our study concur with the study of Joseph and Allen (2002) where secure attachment predicted social skills, and partially with the study of Hamarta, Deniz and Saltali (2009) where it predicted Emotional Intelligence (EI). The present study is also in line with the study conducted by Abo-Ghazal and Jaradat (2009) where secure and anxious attachment predicted self-esteem and the feeling of loneliness, and the study conducted by Al-Ollwan (2011) where attachment styles predicted the EI of university students. The results of the present study also concurs with the results reported by Khori (2004) that documented a positive relationship between an

individual's secure attachment and his/her marital adjustment, and a negative relationship between avoidant attachment and marital adjustment. Similarly, the present study concurs with the study conducted by Abo-Ghazal and Flwah (2014) where a positive relationship was found between anxious attachment and negative attitude towards problems, and between secure and avoidant attachment on the one hand and avoidant problem solving, rational problem solving and positive attitude towards social problem solving on the other. Finally, the current results are consistent with the results reached by Arslan, Arslan and Ari (2012), and Zeyrek, Gencoz, Bergman and Lester (2009) where a positive correlation was documented between secure attachment and problem solving style, and a negative correlation was found between secure attachment and negative problem solving.

Taking into consideration the results and the limitations of our study, we offer the following recommendations: 1) developing training programs to eliminate anxious and avoidant attachment styles and enhance secure attachment among university students, 2) developing preventive programs that allow for students' participation in activities requiring cooperation and mutual trust in order to help them develop positive views of themselves and of others, 3) providing psychological counseling services based on the attachment theory to university students who have adaptation problems like anxiety, depression and poor SI, 4) designing special programs to enhance students' SI through scientific and social activities, 5) designing training programs to enhance self-esteem, social intelligence and secure attachment, especially in students with anxious and avoidant attachment that proved to have negative effects on their intelligence, social skills and mental health, 6) replicating the present study with other populations, especially males, age groups and settings, e.g., social care institutes, 7) investigating the relationship between attachment styles and variables like self-and social-efficacy, self-disclosure and psychological disorders like social phobia and poor self-confidence, and 8) development of a causal model exploring the relationship between SI and attachment styles with mediating variables gender, specialization and academic level.

Acknowledgment

The authors extend their appreciation to the Deanship of Scientific Research, King Saud University for funding this work through the International Research Group Project RG-1436-028.

References

- Abo-Amsha, M. (2013). *Social and affective intelligence and their relation to the feeling of happiness among university students in Gaza* (Unpublished M.A Thesis). Al-Azhar University, Gaza, Palestine. (In Arabic)
- Abo-Donia, N. (1998). A structural analysis of the social competence scale. In *Educational and Psychological Research* (Vol. 75, pp. 557-583). Faculty of Education, Al-Azhar University. (In Arabic)
- Abo-Ghazal, M., & Jaradat, A. K. (2009). Adult attachment styles and their relation to self-esteem and the feeling of loneliness. *The Jordanian Journal of Educational Sciences*, 5, 45-57. (In Arabic)
- Abo-Ghazal, M., & Flwah, A. (2014). Attachment styles and social problem solving in adolescents in the light of the variables of social type and age group. *The Jordanian Journal of Educational Sciences*, 10(3), 351-368. (In Arabic)
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Styles of attachment assessed in the strange situation and at home*. Hillsdale, NJ: Erlbaum.
- Al-Harout, H. (2000). *Attachment styles and their relation to social anxiety and competence in late childhood* (Unpublished M.A Thesis). The College of Graduate Studies, the Jordanian University. (In Arabic)
- Al-Ameri, A. S. (2015). The relationship between attachment styles and the development of the powers of the psych-social ego in a sample of male and female individuals from adolescence to adulthood. *Journal of Gazan University-Human Sciences Branch*, 2, 36-45. (In Arabic)
- Al-Omeiri, N. A. (2015). *The relationship between attachment styles and the major personality factors among Om Al-Qura University students in the light of some variables* (Unpublished M. A. Thesis). Psychology Department, Om Al-Qura University, KSA. (In Arabic)
- Al-Maleki, H. (2010). Adult attachment styles and their relation to self-efficacy and social skills. *Arabic Studies in Education and Psychology*, 4, 203-231. (In Arabic)
- Al-Manaberi, F. (2010). *Social intelligence, social responsibility and academic achievement in a sample of faculty of education students at Om Al-Qura University* (Unpublished M.A Thesis). Om Al-Qura University, Mecca. (In Arabic)

- Al-Ollwan, A. (2011). Emotional intelligence and its relation to social skills and attachment styles of university students in the light of the two variables of specialization and gender. *The Jordanian Journal of Educational Sciences*, 7, 125-144. (In Arabic)
- Arremawi, M. (2011). *General psychology*. Amman, Dar Almasirah Publisher. (In Arabic)
- Arslan, E., Arslan, C., & Ari, R. (2012). An Investigation of Interpersonal problem solving Approaches with respect to attachment styles. *Educational Sciences: Theory & Practice*, 12(1), 15-23.
- Ashahwan, N. (2002). *Attachment styles associating child abuse and symptoms of maladjustment in abused children* (Unpublished M.A Thesis). The Jordanian University, Amman, Jordan. (In Arabic)
- Asqoul, K. (2009). *Social intelligence and its relation to critical thinking and some variables of university students*. (Unpublished M.A Thesis). The Islamic University, Gaza, Palestine. (In Arabic)
- Bakker, W., Van Oudenhoven, J., & Van Der Zee, K. (2004). Attachment styles, personality and Dutch emigrants intercultural adjustment. *European Journal of Personality*, 18, 387-404. <http://dx.doi.org/10.1002/per.515> (In Arabic)
- Becker, T., & Billing, R. (1997). Validity of scores on three attachment style scales: Exploratory and confirmatory evidence. *Educational and Psychological Measurement*, 57, 477-493. <http://dx.doi.org/10.1177/0013164497057003009>
- Bowlby, J. (1969). *Attachment and loss*. New York, NY: Basic Books.
- Bowlby, J. (1973). *Attachment and loss*. New York, NY: Basic Books.
- Bowlby, J. (1990). *A secure base: Parent-child attachment and healthy human development*. New York, NY: Basic Books.
- Brumariu, L. E., & Kerns, K. A. (2010). Mother-child attachment styles and different types of anxiety symptoms: Is there specificity of relations. *Child Psychiatry and Human Development*, 41, 663-674. <http://dx.doi.org/10.1007/s10578-010-0195-0>
- Cassidy, J., & Shaver, P. R. (1999). *Handbook of attachment: Theory, research and clinical applications*. New York, NY: Guilford Press.
- Collins, N. L., & Read, S. J. (1990). Adult attachment working models and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-663. <http://dx.doi.org/10.1037/0022-3514.58.4.644>
- Deniz, M., Hamarta, E., & Ari, R. (2005). An investigation of social skills and loneliness levels of university students with respect to their attachment styles in a sample of Turkish students. *Social Behavior and Personality*, 33, 19-32. <http://dx.doi.org/10.2224/sbp.2005.33.1.19>
- Ditommaso, E., Brennen-McNulty, C., Ross, L., & Burgess, M. (2003). Attachment styles, social skills and loneliness in young adults. *Personality and Individual Differences*, 35, 303-312. [http://dx.doi.org/10.1016/S0191-8869\(02\)00190-3](http://dx.doi.org/10.1016/S0191-8869(02)00190-3)
- Hamarta, E., Deniz, M., & Saltali, N. (2009). Attachment styles as a predictor of emotional intelligence. *Educational Sciences: Theory and Practice*, 9, 213-229.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524. <http://dx.doi.org/10.1037/0022-3514.52.3.511>
- Hazan, C., & Shaver, P. (1990). Love and work: An attachment-theoretical perspective. *Journal of Personality and Social Psychology*, 59, 270-280. <http://dx.doi.org/10.1037/0022-3514.59.2.270>
- Huntsinger, E., & Luecken, L. (2004). Attachment relationships and health behavior: The meditational role of self-esteem. *Psychology and Health*, 19, 515-526. <http://dx.doi.org/10.1080/0887044042000196728>
- Johnson, G. (2008). *Learning styles and emotional intelligence of the adult learner* (Unpublished Doctoral Dissertation). Auburn University, U.S.A.
- Joseph, P., & Allen, M. (2002). Attachment and autonomy as predictors of the development of social skills and delinquency during mid-adolescence. *Journal of Counseling and Clinical Psychology*, 170, 65-66.
- Joseph, R. (1992). An individual difference approach to predicting social competence. *Psychological Abstracts*, 130, 5-33.
- Kobak, R., & Hazan, C. (1991). Attachment in marriage: Effects of security & accuracy of working models. *Journal of Personality & Social Psychology*, 60, 861-869. <http://dx.doi.org/10.1037/0022-3514.60.6.861>

- Lawrence, J., & Donald, S. (1990). Interpersonal competence, social intelligence and general ability. In *Educational Testing Service*. USA.
- Mallinckrodt, B., & Wei, M. (2005). Attachment, social competencies, social support and psychological distress. *Journal of Counseling Psychology*, *52*, 358-367. <http://dx.doi.org/10.1037/0022-0167.52.3.358>
- Marlowe, H. (1986). Social intelligence: Evidence for multidimensionality construct independence. *Journal of Educational Psychology*, *78*, 52-58. <http://dx.doi.org/10.1037/0022-0663.78.1.52>
- Mikulincer, M. (1997). Adult attachment style and information processing: Individual differences in curiosity and cognitive closure. *Journal of Personality and Social Psychology*, *72*, 1217-1230. <http://dx.doi.org/10.1037/0022-3514.72.5.1217>
- Mikulincer, M., Shaver, P., & Pereg, D. (2003). Attachment theory & affect regulation: The dynamic development & cognitive consequences of attachment related strategies. *Motivation and Emotion*, *27*, 77-102. <http://dx.doi.org/10.1023/A:1024515519160>
- Muras, A. (1996). Attachment style and its relationship to affect, social behavior. *Dissertation Abstracts International*, *56*, 5-10
- Shaver, P., & Brennan, K. (1992). Attachment styles and the big five personality traits: Their connections with each other and with romantic relationship outcome. *Personality & Social Psychology Bulletin*, *18*, 536-545. <http://dx.doi.org/10.1177/0146167292185003>
- Silver, C., & Lee, W. (2001). The role of attachment in responses to victims of life crises. *Journal of Personality & Social Psychology*, *80*, 425-438. <http://dx.doi.org/10.1037/0022-3514.80.3.425>
- Simpson, A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality & Social Psychology*, *59*, 971-980. <http://dx.doi.org/10.1037/0022-3514.59.5.971>
- Wei, M., Russell, D., & Zakalik, R. (2005). Adult attachment, social self efficacy, self-disclosure, loneliness, and subsequent depression for freshman college students: Longitudinal study. *Journal of Counseling Psychology*, *52*, 602-614. <http://dx.doi.org/10.1037/0022-0167.52.4.602>
- Zahran, H. (2000). *Social psychology*. Cairo, AlamAlkotob. (In Arabic)
- Zeyrek, E., Gencoz, F., Bergman, Y., & Lester, D. (2009). Suicidality, problem-solving skill, attachment style, and hopelessness in Turkish students. *Death Studies*, *33*(9), 815-827. <http://dx.doi.org/10.1080/07481180903142407>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).