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**Adolescents and Peer Attachment: Attachment Styles, Peer Trust, Communication, and Alienation in Light of Gender**

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**Abstract:**

The current study aimed to explore peer attachment among Algerian adolescents with particular focus on gender differentials, more specifically, the prevalence and differences in the average degrees of each one of peer attachment determinants (levels, styles, and dimensions peer attachment) among the study sample. In order to achieve this goal, a quantitative research was carried out employing a descriptive analytical approach, through which, the emotional attachment scale for adolescents in its form of attachment to friends by Abdul Rahman and Al Omari (2014) (codified by the researchers) was administered to a sample consisting of (130) adolescents.

The study resulted in several noteworthy findings: foremost among them, the 'high level' of peer attachment, the dimension of 'peer trust', and the 'secure attachment style' are the most prevalent peer attachment dimensions among the study sample, and although there were no statistically significant differences in light of gender in all said determinants among the sample members, a statistically significant difference in peer communication is present, in which the differences are in favor of females.

**Keywords:**

Adolescents ; Peer Attachment ; Attachment Styles ; Attachment Dimensions ; Gender.

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**Introduction:**

Attachment theory is based on the premise that quality of interpersonal relationships between the child and their caregivers plays a key role in shaping the individual's beliefs and views about themselves and the world around them, which essentially originates in the early stages of their lifespan. These beliefs are organized in late adolescence and structured within what is named 'Internal Working Models of Attachment' according to the theory founder John Bowlby in (1973), these models persist with the individual all through adulthood. By the implication of multiple interactions between the child and their caregiver -within internal working models of attachment- the child gradually forms a set of beliefs about themselves and the extent of their worthiness of love, care, and safety based on the caregiver's success or refusal to respond to their biological and psychological needs. Simultaneously, the child forms their beliefs about others and the extent of these individuals' worth and reliability. As a caregiver, then the child decides whether to consider them a source of security (a base which is safe enough to return to in situations of anxiety and danger, and from which to move towards new situations for exploration and growth) or else the child considers the caregiver to be unreliable. And although the parents are the primary images of attachment in childhood, it becomes latent as the adolescent's attachment system employs psychological investments in new attachment figures or Images (Hazan, Shaver, 1987) as the subject of these attachment Images shifts and expands on to the rest of the individual's interpersonal relationships, including -but not limited to - intimate spousal relationships and peer groups. In adolescence, the adolescents' beliefs about themselves and others and their worthiness of care centers around their friends and peer groups in which adolescents form their independency and individuality, the findings of Flykt et al. (2021) study stated the hierarchy of attachment and its basic images changing in adolescence and expanding from the main caregivers -parents in particular- to peer groups.

The quality of peer attachment is double-edged in its impact on the adolescent's life. On the one hand, it may provide adolescents with a sense of belonging to a specific group, provides social support by relying on their peers (Wang et al., 2021), enables adolescents to form their identity, assert themselves and achieve their independence, raises the degree of their liberty to improve their social skills such as social participation and effectiveness within group settings and conflict solving skills (Tomé et al., 2012). On the other hand, it can lead to the emergence of several problems, particularly conduct and emotional problems according to the results of a study conducted by Schoeps et al. (2020). The quality of peer attachment finds its roots in childhood, despite the shift in the images of attachment in adolescence and adulthood, the patterns and styles of that attachment are considered relatively stable throughout the individual's life. In addition, the quality of the adolescent's primary parental attachment dictates the speed of their investment in peer groups based on the conceptualization that all attachment behaviors 'are grounded in how individuals were/are attached to their primary caretaker' (Bex, 2014, p.1) particularly when distinguished by an insecure attachment style, such styles fail to satisfy the needs of emotional connection and rarely provides a sense of safety to the adolescent's psychological system, thus, insecure attachment styles are associated with low levels of trust in others, low self-esteem, and high levels of fear of rejection and anxiety which is linked to high levels of alienation in young people (Azouz, 2022), while secure attachment styles are associated with self-efficacy and social adjustment according to the findings of Yaakoub & Maamari in (2018).

Attachment is essentially formed through interpersonal experiences between children and those around them, in spite of the fact the child's relationship with their parents is an asymmetrical complementary relationship, the individual's relationships with their peer group or friends is a symmetrical relationship since childhood, a notion based on the continuous exchange of experiences, values and standards prevailing in peer groups in general, and in

culture as a whole. According to Fouts et al. (2013) automatic gender segregation begins with play activity at the age of three, with both males and females preferring to form playgroups or friendships with other individuals of the same gender, and this automatic preference persists with them into adolescence. As a result, both males and females grow up within their peer groups creating entirely different social and relational life experiences, those differences are reinforced within a vicious cycle of the same exchanges with friends of the same gender, in which males act aggressively, and engage in practical activities such as playing, exercising, and team sports, while females tend to establish friendships based on empathy, communication through conversations and other forms of rapprochement with peers as confirmed in a study conducted by Spencer in (2008) (Rajendran, 2022). In another study on a more profound analysis of peer relationships in adolescence, De Goede et al. (2009) concluded that the nature of the relationship between male peers is characterized by fluctuating levels of bad experiences which decreases after a certain period of time following the bad event or conflict, and that males who are characterized by strength and leadership are considered the ideal friend and gain their peer's trust, while females maintain the same initial level of bad experiences after any conflict and tend to seek balance and harmony in their peer groups without searching for strength as a determining factor in the nature of their relationship and status within the group.

Given the importance of attachment and its impact on the psychological development of adolescents, and in view of the differences which result from gender that both directly and indirectly affect the nature of peer relationships, it only prompts the researchers to investigate the extent to which it may also affect the quality of adolescent's peer attachment With various determinants of that attachment and its styles. Therefore, we aim through this paper to study adolescents' peer attachment in light of the gender variable by an attempt at answering the following questions:

- Q1: What are the most prevalent peer attachment determinants (Levels, Styles, Dimensions) among adolescents?
- Q2: Are there statistically significant differences between adolescents in the average degree of peer attachment in light of their gender?
- Q3: Are there statistically significant differences between adolescents in the average degrees of peer attachment styles (Secure and Insecure style) in light of their gender?
- Q4: Are there statistically significant differences between adolescents in the average degrees of peer attachment dimensions (Trust, Communication, and Alienation) in light of their gender?

#### **Study Hypotheses**

Through what was presented in our introduction and study questions, and after reviewing the literature and some previous studies on the study's main issue, the following hypotheses can be presented:

- H1: The 'high level', 'secure attachment style', and 'peer communication' are the most prevalent attachment determinants among adolescents.
- H2: There are statistically significant differences between adolescents in the average degree of peer attachment in light of their gender in favor of females.
- H3: There are statistically significant differences between adolescents in the average degrees of attachment styles in light of their gender in favor of females.
- H4: There are statistically significant differences between adolescents in the average degrees of peer attachment dimensions (Trust, Communication, and Alienation) in light of their gender in favor of females.

#### **Importance and Objectives**

The importance of the current study is manifested in its focus on another aspect of attachment, which is peer attachment among adolescents, mainly because the nature of this

attachment has positive and negative effects on all aspects of the adolescent's life (health, social and psychological...) depending on the quality of that attachment. This attachment is formed within Peer groups, within which adolescents form their thoughts and beliefs, and within which they begin to separate themselves from their family and form their self-image and identity, thus the peer group may be the clear-cut boundary between the adolescent's involvement in non-adaptive behaviors such as aggression, bullying and risk taking, or effective healthy behaviors such as cooperation, social participation and positive competition.

In addition, the current study explores peer attachment according to the variable of gender, and its importance lies in the study of the possibility of gender's impact on the quality of peer attachment, attachment styles and its dimensions represented in communication, trust and alienation, thus the possibility of taking adolescent's gender into consideration when designing treatment or training programs In dealing with attachment problems, particularly for adolescents.

The objectives of the research are as follows:

- Revealing the most prevalent peer attachment determinants (levels, styles, and dimensions) of peer attachment among adolescents of the study sample.
- Determining the differences between adolescents of the study sample in the degree of peer attachment with respect to gender.
- Determining the differences between adolescents of the study sample in the average degree of peer attachment styles (Secure and Insecure style) with respect to gender.
- Determining the differences between adolescents of the study sample in the average degree of peer attachment dimensions (trust, communication, and alienation) with respect to gender.
- Applying the emotional attachment measurement tool in its form to attachment to friends on the Algerian environment, and determining its psychometric properties.

## **1. Conceptual Framework and Literature Review**

### **1.1 Study Concepts:**

#### **1.1.1 Peer Attachment:**

Bowlby and Ainsworth, the founders of attachment theory, define attachment as: « A strong emotional bond which a child forms with the primary caregiver, and later becomes the basis for future love and intimate relationships» (Ainsworth, Bowlby, 1991, p.336), it is established that the quality of this attachment is distinguished between secure and insecure attachment according to the caregiver's response to the child's basic needs. Other forms of attachment were identified including romantic attachment to a life partner in adulthood, and attachment to friends and peers during adolescence, these types of attachment are formed As a result of the functional equivalence between the sense of safety (or the absence of it) provided by the caregiver's response (or the lack of it), and the sense of safety (or the absence of it) which the individual derives from the response to their psychological, emotional and social needs (or the lack of it) provided by others within their social network.

Peer attachment is defined by Abdul-Rahman & Al-Omari (2014) according to three main indicators: « trust and communication with peers, through respecting peers and understanding their feelings, appreciating and accepting the role of friends in the adolescent's life, in addition to sympathizing with the adolescent's troubles and difficulties » or through « Alienation from peers, in which the adolescent feels nervous and shy as a result of lack of interest and communication with their peers », all of these indicators arise according to the adolescent's attachment style. (Abdul Rahman, Al-Omari, 2014, p. 72)

Peer attachment is introduced in the current study in regards to its determinants, namely, Levels of peer attachment, styles of peer attachment, and Dimensions of Peer Attachment, therefore, peer attachment is defined procedurally within the current study as: the emotional bond the adolescent establishes with their peer group members and is determined by the

degree to which the adolescent obtains through their responses on the emotional attachment scale for adolescents in its image of attachment to friends, the Arabized version prepared by Al-Rahman and Al-Omari (2014) and codified on the Algerian society by the researchers.

### **1.1.2 Adolescence:**

According to Hauswald (2016) adolescence is a developmental stage in which the biological, psychological, and social maturity of the young individual meets, and it is a complex passage process which allows the individual to separate and mature from childhood and find their sense of self as an adult. For the purposes of this study, we obtain the World Health Organization definition of adolescence as the age range from (10) to (19) years, this range constitutes the age sampling criteria included in the current study.

### **1.2 Literature Review:**

Despite the multiplicity of studies that explored multiple variables of attachment and peer attachment among adolescents, there are few studies which specifically researched the subject of the current study in light of the gender variable, particularly when it concerns Arab studies, these studies are presented as follows:

#### **1.2.1 Ghanim Ziyad Barakat's study (2022):**

The study is titled: 'Emotional attachment styles among Palestinian youth in light of gender and age variables -Tulkarm Governorate as a model', in which the researcher mainly aimed to identify styles of emotional attachment among Palestinian youth. With regards to the gender variable (sex) and age, the researcher applied the emotional attachment scale (designed by them) on a sample of (520) young men and women. The study results found there were statistically significant differences in the total level of attachment in favor of females according to the variable of sex, and young men according to the variable of age, furthermore, the most common attachment style among sample members is the secure attachment style, followed by the anxious attachment style in both sexes, with the total levels of attachment being determined by 'the medium level', the secure attachment style by 'the high level', and the rest of the attachment styles (anxiety, rejection and preoccupation) by 'the medium level'. (Ghanim, 2022)

#### **1.2.2 The study of Gorrese and Ruggieri (2012):**

which came under the title: 'Attachment to peers: an analytical report on the differences according to the variables of sex, age, and the relationship of attachment to parents', Through which, the researchers structurally analyzed (54) studies on the effect of sex as a variable on the degree of peer attachment, and (44) studies on the relationship between attachment to parents and peers, in addition to (19) studies on the impact of age on peer attachment among adolescents. It was found that there is a medium correlation between attachment to parents and peer attachment, in addition to the presence of statistically significant differences between genders in the degree of peers attachment in favor of females, with no statistically significant relationship between age and attachment to peers (Gorrese, Ruggieri, 2012).

There are a number of key similarities and differences between the previous studies regarding the methodology. The previous studies shared their reliance on the descriptive approach in order to achieve study goals, and while the studies shared the main goal, which is exploring attachment according to the gender variable, each of them approached the subject from a different perspective, including determining emotional attachment styles in general. According to the variable of gender in addition to age as in the study of Ghanim (2022), and studying attachment to parents and their parenting styles and collaborative behavior in addition to peers attachment according to the variable of gender and other variables while the study of Gorrese & Ruggieri in (2012) explored peers attachment in light of the sex variable in depth.

Regardless of the angle of each of the previous studies, it has been found, in general, that there were statistically significant differences in the degrees and styles of attachment due to

the variable of gender, with a different weighting for one gender than the other based on the sample and study. What distinguishes our study is the perspective of which we targeted the subject of attachment to peers among adolescents according to gender, as it is the first study of its kind to be conducted on Algerian adolescents - according to the researchers' knowledge and readings -, in addition to studying the dimensions of that attachment (peer trust, communicating with them, and alienation from them), as well as determining the prevalence of each of these determinants among the sample members in light of their gender differences and prevalence.

## 2. Methods

### 2.1 Study Method:

For the purposes of this study, the descriptive approach was used in order to achieve its objectives and to explore the differences in peer attachment, its styles and dimensions among adolescents in light of their gender. The researchers distributed the 'peer attachment scale' during the time frame of the school year of (2022) in the field of study represented by El Bashir Elibrahimi Middle School and Ibn Toubal Silimane High School in Mila- Algeria, that is after obtaining the required legal and formal papers in order to structurally collect the study's raw data. This study is conducted using both a pilot study for the purpose of codifying the study instrument used on the Algerian adolescents and determining its psychometric properties, and a main study in which we inspected the adolescents' peer attachment determinants in light of their gender. The results of which are listed as follows

### 2.2 Sample:

The pilot study sample consisted of (32) male and female adolescents, distributed as follows: (13) males with a rate of (40.6%) and (19) females with a rate of (59.4%) ranging in age from (14-19). With regard to the main study sample, it consisted of (130) male and female adolescents as showed in the following table:

**Table 01:** "Distribution of Adolescents of the Main Study Sample By Gender"

Gender	N	%
Female	77	59.2
Male	53	40.8
Total	130	100

Source : by The Researchers.

As shown in Table (01) which represents the characteristics of the main study sample by gender, we make notice the percentage of female members of the sample is (59.2%) representing (77) members of the main study sample, while the percentage of male adolescents was (40.8%) representing (53) of the remaining members.

### 2.3 Measurements and Procedures:

In order to achieve the objectives of the current study, the emotional attachment scale for adolescents was relied on in its form of attachment to friends, which is a psychological scale consisting of (25) items, developed originally by researchers Armsden and Greenberg (1987), translated and codified on the Saudi environment by Abdul Rahman and Al Omari (2014), and for the purposes of this study, we presented the scale to a group of (08) arbitrators whom are university professors to assess the suitability of the scale phrases and items to the Algerian environment and characteristics of the study sample, and after obtaining their approval, we then conducted a pilot study on a sample of (30) Algerian adolescents to recalculate and determine the psychometric properties of the scale before applying it to the main study sample, the results of which are shown in the following tables:

### 2.3.1 Differential Validity

**Table 02:** "Differential Validity of the Study Scale"

Group	N	Mean	S.D	T-Value	Liberty	Sig
Upper	9	106.33	11.634	9.248	14.659	0.000
Lower	9	106.33	8.515			Significant**
<b>Total</b>	18					

Source : by The Researchers Relying on SPSS25.

Differential validity constitutes the scale's ability to distinguish between highest and lowest scores (upper and lower groups) of the targeted sample, and it is apparent from Table (02) that the value of (T) equals (9.248) at the degree of freedom (14,659) at the significance level (0.000), it is a statistically significant value at the significance level (0.001), which means that there are statistically significant differences between the averages of the upper and lower groups and therefore The tool has a high differential validity that allows it to be applied to the main study sample.

### 2.3.2 Cronbach's Alpha Reliability

**Table 03:** "Results of Cronbach's Alpha of the Study Scale"

The emotional attachment scale for adolescents in its form of attachment to friends	Cronbach's Alpha Coefficient
	0.899

Source : by The Researchers Relying on SPSS25.

It is apparent from Table (03) that the value of Cronbach's alpha reliability coefficient amounted to (0.899), which is an indicator of a strong reliability, and therefore the tool has a high reliability that enables it to be applied to the main study sample.

## 3. Findings

### 3.1 Data Results and Analysis:

**3.1.1 Results of the Study's H1:** "The 'high level', 'secure attachment style', and 'peer communication' are the most prevalent attachment determinants among adolescents."

In order to test for this hypothesis, several statistics were analyzed, namely the mean values and standard deviations of target variables. Depending on the rank of mean values, the prevalence of each peer attachment determinants (Levels, Styles, and Dimensions) are presented in the tables below:

**Table 04:** "Prevalence of Peer Attachment Determinants Among Adolescents"

Peer Attachment Determinants		Mean	S.D	Rank
<b>Peer Attachment Levels</b>	High Level	101.7705	7.02814	1
	Medium Level	77.4129	7.88977	2
	Low Level	48.0000	9.59166	3
<b>Peer Attachment Styles</b>	Secure Attachment Style	63.1308	13.03328	1
	Insecure Attachment Style	25.6231	5.22110	2
<b>Peer Attachment Dimensions</b>	Peer Trust	37.8231	7.50758	1
	Peer Communication	26.4538	6.99403	2
	Peer Alienation	24.4769	4.87553	3

Source : by The Researchers relying on SPSS25.

We note from Table (04) the level of peer attachment that is most prevalent among the adolescents of the study sample is the 'high level' with the highest mean valued at (101.7705) and standard deviation of (7.02814), followed in order by the 'medium level' with a mean value of (77.4129) and standard deviation of (7.88977), and the least prevalent among adolescents is the 'low level' with a mean value of (48.0000) and standard deviation of

(9.59166). The high prevalence of “high level” of peer attachment among the study sample suggests that most adolescents have strong emotional and relational connections with their peers, and have successfully invested in their peer groups as a primary source of emotional and affective figures -alongside parental ones-. These results are considered a positive outlook on the quality of peer attachment among Algerian adolescents, which is considered essential for their social and emotional development and adaptation to society, and can contribute to their overall wellbeing, and betters their quality of life according to a study conducted by Nickerson and Nagle in (2004).

In addition, we note from table (04) above, the most prevalent peer attachment style among the adolescents of the study sample is the ‘secure attachment style’ with the highest mean value of (63.1308) and standard deviation of (13.03328), followed by the ‘insecure attachment style’ With a mean value of (25.6231) and standard deviation of (5.22110). The prevalence of secure peer attachment style among Algerian adolescents indicates that these individuals are characterized with a healthy form of attachment, which can be traced back to secure attachment parental figures in early adolescence and childhood according to the results of a study conducted by Delago and colleagues in (2022). Furthermore, secure adolescents are less likely to experience emotional difficulties (anxiety, aggression, depression..), distress and social isolation, as the sense of trust and autonomy and competence that accompany a secure attachment style are considered protective factors against psychological disorders, these results shed light on the importance of fostering emotional and social skills in a form of preventive and intervention programs.

The results of table (04) also shed light on the prevalence of peer attachment dimensions (peer trust, communication, and alienation). Firstly, “peer trust” emerges as the most prevalent dimension among the adolescents of the study sample characterized by the highest – among all dimensions- mean value of (37.8231) and standard deviation of (7.50758), these high levels indicate that most Algerian adolescents can maintain a healthy relationship with their peer groups, can invest greatly in supportive and balanced positive social connections. Secondly, ‘peer communication’ follows in prevalence, with a mean value of (26.4538) and a standard deviation of (6.99403), which reflects the adolescents’ engagement and use of effective communication skills in their relationship with their peers and friends, which may result in their ability to achieve mutual understanding and use better conflict resolution strategies. Lastly, the findings of table (04) present ‘peer alienation’ as the least prevalent among adolescents with a mean value of (24.4769) and standard deviation of (4.87553), which suggests that the majority of adolescents rarely experience significant social isolation and feelings of estrangement, indicating a strong sense of connectedness and belonging within their peer groups, further enforcing the previous findings.

The overall findings presented in table (04) support the validity of the first hypothesis of the present study, therefor shedding light on the importance of examining peer attachment among adolescents using different various determinants in understanding the depth of their social dynamics and emotional investments during this critical developmental phase. The prevalence of the “high level”, “secure attachment style”, and “peer trust” among adolescents indicates a positive peer group dynamics among Algerian adolescents, which can inform interventions and support strategies aimed at promoting healthy peer relationships and emotional resilience among adolescents, and inspire the development of training and treatment programs for the benefit of improving attachment inn adolescence.

**3.1.2 Results of the Study’s H2:** “There are statistically significant differences between adolescents in the average degree of peer attachment in light of their gender in favor of females.”



In order to test the validity of this hypothesis, the researchers utilized the “independent samples T-Test” to examine the differences in the mean values of peer attachment degrees between male and female adolescents, the result of which are presented in the table below:

**Table 05:** "Independent Samples T-Test Results of the Differences in the Average Degree of Peer Attachment between Adolescents in Light of their Gender"

	Gender	N	Mean	S.D	T-Value	P Value	Sig
Peer Attachment	Females	77	89.6938	14.65199	0.840	0.403	Not Significant
	Males	53	87.2235	17.63226			

Source : by The Researchers Relying on SPSS25.

It is apparent from the data of Table (05) that the mean value of peer attachment of females reached (89.6938) with a standard deviation of (14.65199), these values are approximate to the mean value peer attachment among male members of the sample, whose value reached (87.2235) with a standard deviation of (17.63226). The result of the t-test for two independent samples with a value of (0.840) with a probability value of (0.403) was higher than the significance level (0.05), therefore the second hypothesis of the current study is discredited, as there are no statistically significant differences between females and males in the average degree of peer attachment among adolescents. However, we note from the table (05) above, that the mean value of peer attachment among females (89.6938) is slightly higher than that among males (87.2235), suggesting that, on average, females may have slightly stronger attachment to their peer groups and friends compared to males, and while there may be some variation in attachment levels between both genders, these differences are not significant enough to generalize across the entire adolescent population. The results of the second hypothesis of the study can be beneficial in clinical settings concerned with early evaluation and detection of attachment problems and socio-emotional disorders, particularly when deciding whether to hold both genders to the same standard peer attachment average degrees or to consider the slight differences between them.

**3.1.3 Results of the Study's H3:** “There are statistically significant differences between adolescents in the average degrees of attachment styles in light of their gender in favor of females.”

Similar to the analysis used to test the validity of the second hypothesis, “independent samples t-test” was utilized to test and analyze the differences between average degrees of peer attachment styles among adolescents of the study sample, the results of which are presented in the table below:

**Table 06:** "Independent Samples T-Test Results of the Differences in the Average Degree of Secure Attachment Style Between Adolescents in Light of their Gender"

Peer Attachment Styles	Gender	N	Mean	S.D	T-Value	P Value	Sig
Secure Attachment Style	Females	77	64.2468	12.10029	1.154	0.251	Not Significant
	Males	53	61.5094	13.86143			
insecure Attachment Style	Females	77	25.5325	4.50025	0.238	0.813	Not Significant
	Males	53	25.7547	6.16412			

Source : by The Researchers Relying on SPSS25.

Table (06) represents the results of differences analysis using (spss25), we note that the differences between mean values of secure and insecure attachment styles of (64.2468) and (25.5325) for females, and (61.5094) and (25.7547) for males with standard deviation values of (12.10029), (4.50025), (13.86143), and (6.16412) were not statistically significant, as indicated by the results of the t-test for two independent samples with t-values of (1.154) and

(0.238) for secure and insecure attachment style. The probability values of (0.251) and (0.813) further support these results. However, we note from the same table, that the mean value of secure attachment style is slightly higher in females than that among males, suggesting that females engaging in secure attachment styles are more likely to invest in their peer groups and form strong emotional bonds with their peers than males. It is noteworthy to mention that this observation is highly restricted to the results concerning the current study sample and is not an indication of the characteristics of the larger Algerian adolescents' population.

These findings discredit the study's third hypothesis and suggest that gender may not be a significant factor in determining adolescents' attachment styles, as both males and females may experience similar levels and degrees of secure or insecure attachment in their relationships with their peers. However, these results remain unable to shed light on gender differences in determining the quality of peer attachment among adolescents, as it highlights the need for personalized approaches and further clinical and case studies to determine the validity of this notion. Additionally, the results of this hypothesis emphasizes the value of developing psychological interventions which focus on enhancing secure attachment (characterized by trust, security, and comfort in emotional and social relationships with peers) among adolescents and addressing insecure attachment patterns -which may manifest as anxiety and avoidance among peer relationships- regardless of gender.

**3.1.4 Results of the Study's H4:** "There are statistically significant differences between adolescents in the average degrees of peer attachment dimensions (Trust, Communication, and Alienation) in light of their gender in favor of females."

The results of table (07) below are representative of the "independent samples t-test" results which was utilized in order to test for the possible differences of peer attachment dimensions between male and female adolescents among the study sample:

**Table 07:** "Independent Samples T-Test Results of The Differences in The Average Degree of Peer Trust Between Adolescents in Light of their Gender"

Peer Attachment Dimensions	Gender	N	Mean	S.D	T-Value	P Value	Sig
Peer Trust	Females	77	38.1688	7.10893	0.616	0.539	Not Significant
	Males	53	37.3208	8.09504			
Peer Communication	Females	77	27.4935	6.73096	2.069	0.043	Significant
	Males	53	24.9434	7.15600			
Peer Alienation	Females	77	24.1169	4.37389	1.015	0.312	Not Significant
	Males	53	25.0000	5.52616			

Source : by The Researchers Relying on SPSS25.

Table (07) above presents the results of multiple independent samples t-test examining the gender differences in the average degrees of peer attachment dimensions marked by the average degrees of peer trust, communication, and alienation. With regards to peer trust, we note from the results above that among the (77) females sampled, the mean degree of peer trust is (38.1688) with a standard deviation of (7.10893), comparatively, among the (53) males sampled, the mean degree is slightly lower valued at (37.3208) with a larger standard deviation of (8.09504). The t-value corresponding to the t-test utilized is (0.616) with a corresponding probability value of (0.539), indicating that the slight difference in peer trust among the two genders are statistically insignificant as the p-value is higher than the acceptable alpha (0.05). Alike peer trust, there are no statistically significant differences between the average degrees of peer alienation of females valued with a slightly lower mean value of (24.1169) with a standard deviation of (4.37389) than that of males mean value of (25.0000) with a standard deviation of (5.52616), this result is indicated by the (1.015) t-value corresponding with a probability value of (0.312) higher than the acceptable alpha (0.05).

A notable result concluded from table (07), is that there are statistically significant differences between the average degrees of peer communication in light of gender in favor of females. The table display females (n=77) have a higher mean degree of peer communication (27.4935) compared to that of males (24.9434), in addition, the standard deviation of females is (6.73096) ; while for males, it is slightly higher at (7.15600). The t-test yields a significant t-value of (2.069) with a p-value of (0.043) lower than the acceptable alpha of (0.05).

Although the analysis above supports the premise of gender differences in peer communication in favor of females, it fails to demonstrate significant differences in the remaining peer attachment dimensions (peer trust and peer alienation) among adolescents. Therefore, concerning the validity of the current study's fourth hypothesis, we can discredit the hypothesis of gender differences in all peer attachment dimensions, but retain the validity of gender differences in peer communication in favor of females, with special attention to the reality of slight differences between sampled male and female adolescents in their degrees of peer trust in favor of females, and peer alienation in favor of males without generalization of this result.

The findings suggest that females engage in more frequent and meaningful communication with their peers compared to males, this could be due to various reasons including how females tend to invest in their social relationships and their use of verbal communication as a mean to connect with their peers, as females tend to use expressive communication which involves the expression of emotion and tenderness which are considered key elements in attachment, while on the other hand, males tend to use instrumental communication which is marked by identifying goals and finding solutions and having rational conversations according to Nchedo and Omeje in (2008). As for the differences in peer trust and alienation degrees between sampled females and males, we can attribute that to cultural and societal factors, The Algerian society emphasizes collectivism and community-oriented values in general, but places more value on males being strong and less emotionally expressive, and females taking more soft emotionally expressive roles.

### **3.2 Discussion:**

The present study revealed interesting findings, among which we note the following: the prevalence of a 'high level of peer attachment', 'secure attachment style', and 'peer trust' emerges as prominent determinants of peer attachment among adolescents, and with the exception of peer communication -presented as one of peer attachment dimensions-, there exists no statistically significant differences in all peer attachment determinants including the general degree of peer attachment, peer attachment styles (secure and insecure styles), and peer attachment dimensions (peer trust and alienation). The findings presented are consistent with earlier research and studies conducted by Abu Ghazal & Floh (2014), as well as Ghanem (2022). Particularly noteworthy is the study conducted by Bakermans-Kranenburg & Van IJzendoorn in (2009) in which their comprehensive analysis revealed no statistically significant differences in Attachment across all stages of development throughout an individual's lifespan. Furthermore, the proposal presented by Del Giudice (2019) in which the differences in attachment is posited to trace back to middle childhood resonates with the current study in light of the presence of statistically significant differences in peer communication in favor of females, as well as the differences in attachment styles as found by Karairmak & Duran in (2008).

The presence of enough research consistent with our study makes these findings gain more validity and generalizability. Contrarily, Scharfe (2017) posits, through her research and examination of theories and literature attachment with regards to gender dynamics and differences, that conclusions drawn from such studies -gender differences in attachment- are incongruent and unstable, as some of them support the existence of gender differences in attachment levels, while others fail to report any significant differences, this inconsistency

forms the basis for her argument against the existence of a valid disparity between females and males in all determinants of attachment. In alignment with her findings and opposite to previous studies, Allawi & Makhloufi (2018) acknowledged the existence of differences in secure attachment style due to gender in favor of males, and Tuhari and colleagues (2018) in support of the findings of (Safdar, Zahrah, 2016; Gorrese, Ruggieri, 2012) found significant differences in adolescent insecure attachment styles (anxious attachment) in favor of males and (avoidant attachment) in favor of females.

The diversity of findings concerning gender dynamics and differences in regards to adolescent peer attachment determinants (Levels, Styles, and Dimensions) presents a compelling dichotomy, while some studies report the presence of gender differences between adolescents in peer attachment determinants, others – including the current study - fail to detect any statistical significance to such differences, proving that further research and examination of key factors such as societal norms, individual differences in attachment experiences, personality traits, as well as social and emotional skills, is recommended in order to determine whether the role gender plays in peer attachment is essential or complimentary to other factors, and to attempt developing an integrative approach to understanding adolescent peer attachment in general.

The findings of the current study can be best explained through the principals of attachment theory, which is considered one of the most important foundational theories of developmental psychology. Within this theoretical framework, individuals –including adolescents- form emotional bonds known as attachment with significant others, such as families and peers or friends, in order to fulfill their fundamental psychological and emotional needs for connection, love and care. While the current study acknowledged gender differences in the experience of peer relationships, particularly regarding communication, the central factor determining attachment quality lies in the extent to which the adolescent's relationship with his or her peers meets their attachment needs for connection and care, which may explain the absence of gender differences in peer attachment degrees and styles and dimensions degrees but doesn't account to the differences in quality.

In adolescence, adolescents invest in their social relationships to fulfill their attachment needs, which may manifest differently between males and females. For males, attachment satisfaction often relies on engaging in practical activities with their peers, focusing on fostering a sense of camaraderie and shared purpose with particular focus on communication in order to solve problems and achieve goals. Contrastingly, females typically prioritize the cultivation of intimate and emotionally rich relationships characterized by personal disclosure and expressiveness with empathetic connection. Despite these different pathways to attachment fulfillment, the quality of attachment to peers remain dependent on the presence of positive relational experiences with friends and peers characterized by support, intimacy and sense of safety, as research by Markiewicz and colleagues (2001) highlighted the pivotal role of supportive and nurturing peer relationships in achieving attachment security in adolescence. In addition, Sutton (2019) further proves the importance of peer attachment among adolescents, as positive peer experiences can improve insecure attachment styles and forms them into more secure ones.

In general, the current study contributes to the body of research focusing on adolescent peer attachment by emphasizing the importance of positive relational experiences in shaping attachment dynamics in this critical developmental phase, and highlights the role that gender plays in determining the degrees of peer communication, and pen further research possibilities in exploring the role of gender in determining individual differences in the quality of peer attachment among adolescents.

**Conclusion:**

The current study aimed to reveal the levels, dimensions and styles of peer attachment among adolescents in light of gender, based on determining the differences in the average degrees of each of the peer attachment determinants among sample members, in addition to determining the levels, dimensions, and patterns of peer attachment that are most prevalent among The adolescents of the study sample, for that, the emotional attachment scale was applied in its form of attachment to friends, the Arabized image of Abdul Rahman and Al Omari (2014) on a main sample of (130) Algerian male and female adolescents after it was codified by the researchers. Based on the statistical analysis carried out using the Statistical Package in Science program Social (SPSS25) of collected the data the following results were found:

- The ‘high level’, ‘secure attachment style’, and ‘Peer trust’ are the most prevalent peer attachment determinants among adolescents of the study sample.
- There are no statistically significant differences in the degrees and styles of peer attachment among adolescents of the research sample with regard to gender.
- There are no statistically significant differences in the dimensions of peer trust and peer alienation among adolescents of the research sample with regard to gender.
- There are statistically significant differences in the dimension of peer communication among adolescents of the research sample due to gender in favor of females.

Based on the results of the study, the following recommendations were made:

- Researching the issue of peer attachment in the light of the gender variable in clinical environments in order to determine the mechanisms in which adolescent’s form of this type of attachment, and to reveal any gender differences in the process of peer attachment.
- Conduct the current research relying on a different sample type and size in order to further verify the results of the study.
- Researching the issue of peer attachment among adolescents in relation to other variables: self-esteem, aggressive behavior, bullying.

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