

# Psychological Security and Its Relationship to Empathy Among a Sample of Early Childhood in Jubail Industrial City

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**Abstract:** The current research aims at revealing the relationship between psychological security and empathy in the stage of early childhood at the Jubail Industrial City. Its significance can be attributed to the importance of developing empathy among children, enlightening the community and educators about the importance of psychological security and its relationship to empathy among children in the early childhood stage. An analytical descriptive approach was employed as it suits the nature of the current research. A random sample comprising 204 children in the early childhood stage. Having applied the psychological security [1] and empathy scales [2] to the research sample, the following result was reached. There is a statistically significant correlation between psychological security and empathy in a sample of children in the early childhood stage in Jubail Industrial City.

**Keywords:** Psychological Security, Empathy, Early Childhood Stage.

## 1 Introduction

Early childhood is the cornerstone to the development of one's character. It is one of the most vital and enriching stages of human life. It is an essential phase, upon which other stages of development rely. Modern psychology theories have highlighted the importance of early childhood to the formation of a child's character and determining the behavioural patterns he/she shall adopt in the future.

Empathy is one of the finest patterns of positive social behavior. It is a crucial variable in one's personality. It represents an innately pure and voluntarily charitable behavior. Empathy allows people to experience others' pain and problems simply by being aware of what they are going through [3].

In a study published in [4] identified empathy as emotional reactions leading to caring about others and emotional interaction with their status. To a point in fact, empathy is integral to social life. It brings people together and eliminates hatred. Henceforth, it is necessary to develop empathy among children in the early childhood stage owing to its great impact on their lives. Empathy is a positive feeling that helps children become understanding and considerate. Accordingly, it enhances their connection to others and their self-esteem and tolerance as well.

Psychological security is a prerequisite for human life, as it provides a person with a sense of security, balance and stability. Furthermore, the individual's sense of psychological security is reflected in different aspects of his life and impacts his personality too since psychological security is indispensable to character development. Character development is indeed a perpetual process that begins in childhood and continues across different stages of life [5]. No wonder then that psychological security is of paramount importance to children as much as it is to humanity at large. This importance is highly underscored in the stage of early childhood. It provides the child with a state of psychological and emotional stability, makes him feel safe, and helps him to get along and accept the environment surrounding him [6].

It has been firmly established that there is a strong link between the child's sound psychological, physical and social development and their sense of security and stability and the sense of empathy that ensues. Psychological security is formed through the social, psychological, economic or even political experience a child goes through [7]. The more secure a child feels the more positive they feel toward themselves and others. Eventually children can display their empathetic behaviour in everyday life. The study by [8] emphasised how early childhood experiences influence a child's sense of empathy. If their relationships are characterized by security, love and warmth, their sense of empathy

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will be positively enhanced.

In the light of the above-mentioned information, empathy and psychological security are psychological components that affect children's emotional development. They might also affect each other significantly in addition to their impact on children and their relations to others. Thus, the current research investigates the relationship between psychological security and empathy among a sample of young children at Jubail Industrial City.

### **Research Problem:**

The current research problem is based on field observations displaying. A considerable number of children displayed lack of empathy. For example, they are cruel to animals. Even in humanitarian cases such as illness and death, they might display an inappropriate reaction. The researchers argue that such behaviour may be due to the bad news they encounter all the time owing to the conditions experienced by the whole world. Another reason may be playing violent games and the murderous scenes they entail. Finally, such behaviour may be motivated by the lack of security they experience especially within the family.

Furthermore, [9] highlighted the importance of empathy. It is an integral component of human existence and relationships. Without empathy, human relationships could neither be established nor continue on a sound basis. Additionally, According to [7], a person's compatibility across different stages of his/her life is based on his sense of security and reassurance during his childhood. Therefore, a child must be raised in a safe environment so that they grow up to be mentally healthy and void of any psychological disorders.

Psychological security is indispensable to a person in their different life stages, particularly in the early childhood stage. It contributes to eliminating the psychological disorders a child may suffer from. It is also linked to the emotional problems resulting from troubled feelings that would make the child suffer from hyperactivity, sadness, frustration and pain and may eventually reduce the level of sympathy for others [10]. Furthermore, [11], [4] added that empathy is the child's inner security zone which helps him explore the world around him, understand and sympathise with others.

Considering the previous study, the researchers noted a shortage in studies (particularly in Arabic), that tackled the connection between psychological security and empathy in the early childhood stage. Therefore, a need to investigate the relationship between psychological security and empathy among a sample of children in the early childhood stage. The research problem can be boiled down to the following question: **how is psychological security linked to empathy among children in the early childhood stage at Jubail Industrial City? The following set of questions is derived from this main question:**

1. What factors affect psychological security and empathy in early childhood?
2. What is the level of empathy within early childhood?
3. What is the impact of the sex variable on psychological security, empathy in early childhood?
4. What is the impact of age variable on psychological security and empathy in early childhood?

### **Research Aims:**

#### **The current research seeks to:**

1. Reveal the relationship between psychological security and empathy in early childhood.
2. Identify the level of empathy in early childhood.
3. Reveal the effect of the sex variable on the level of psychological security and empathy in early childhood.
4. Reveal the impact of the age variable on the level of psychological security and empathy in early childhood.

### **Significance of the Research:**

#### **First: Theoretical Significance:**

- 1- The research significance is inspired by the significant impact of psychological security and empathy on children's sound development.
- 2- The scarcity of research that tackled the link between psychological security and empathy.
- 3- The outcomes of the current research are expected to contribute to revealing the connection between psychological security and empathy in early childhood.

#### **Second: Practical Significance:**

- 1- Making use of the research outcomes to enhance psychological security among children in early childhood stage.
- 2- Adding novel outcomes concerning the connection between empathy and psychological security in early childhood stage.
- 3- Enhancing family and community awareness about psychological security in early childhood stage.

### **Research Terminology:**

#### **1. Psychological Security**

Procedurally, psychological security is defined within the current research as the child's underlying sense of Serenity and peacefulness which are achieved through living in a positive environment that are void psychological complexities. It is measured by the degree the child achieves on the psychological security scale used in the current research.

#### **2. Empathy:**

Procedurally, empathy is defined in the current research as "the children's ability to share their feelings as well as sad and happy thoughts. It is measured by the degree the child achieves on the empathy scale used in the current research".

#### **3. Early Childhood**

It is used in the current research to refer to the age group: (4-9) years old.

### **Literature Review:**

#### **First Axis: Psychological Security:**

Psychological security is a key requirement to developing a sound character. Psychologists indicate that a psychologically secure person is that whose needs are satisfied. Accordingly, he is in a state of psychological balance. A person feels secure whenever he is reassured about his health, mental health, children and rights.

##### **1) The Concept of Psychological Security:**

Psychological security can be defined in several ways. Linguistically, psychological security is the opposite of fear. Procedurally, [12] defines psychological security refers to person's feeling of confidence and comfort as well as his ability to appreciate and fulfil himself. On the other hand, [13] defined psychological security as the individual's sense of inner peace and reassurance apart from fear and anxiety. For [14], psychological security is the psychological state where an individual feels reassured, peaceful and stable. It is a state also when his needs are satisfied and feelings of fear or danger are absent. Such a state enables the person to encounter challenges flawlessly.

Based on the previous overview, psychological security is mostly defined as a positive state that an individual experiences in different aspects of life. It is a state where a person feels satisfied.

##### **2) The Importance of Psychological security:**

Studying the psychological state of an individual is highly important because it is the key to a successful, stable and psychologically secure life. The world currently is full of turmoil and unrest which makes the child feel helpless and anxious and always fearful of the future. The importance of psychological security is pinned by [15] as follows:

###### **a) Reliability:**

Reliability leads to psychological stability. If one were scared, anxious or confused, he could never be psychologically stable.

###### **b) Avoiding Despair and Frustration:**

Both despair and frustration are quite destructive and psychological security is the only defense against them.

###### **c) Integration of Islamic Character**

Psychological security makes the person feel reassured and optimistic.

###### **d) Full Trust in God's Will and his Support**

Psychological security makes the person willing to accept his fate and confident that God is always supporting him.

##### **3) Elements of Psychological Security:**

According to [16], psychological security comprises six main elements as follows:

- Self-Acceptance: i.e. accepting one's self, maintaining a positive perspective about himself and life at large,

maintaining high self-esteem and sense of gratitude. It also entails one's ability to make friends and relationships with others that comprise mutual respect, happiness and confidence.

- Independence, i.e. relying on oneself, setting limits that he cannot transcend, self-reliance and self-assessment, and developing individual's own talents to realize, develop and benefit from them as time progresses.
- Controlling one's environment, i.e. the individual should benefit from available opportunities and employ them positively.
- Setting definite goals for the individual to pursue.

#### 4) Characteristics of Psychological Security:

[5] has highlighted several characteristics of psychological security:

- 1- It is determined by social up-bringing and the entailing methods of tolerance, acceptance, love and democracy. Accordingly, it is linked to successful social interaction.
- 2- Psychological security highly impacts individual's educational achievement and innovation.
- 3- Educated individuals feel more secure than ignorant ones.
- 4- Psychologically secure individuals are more innovative than others.
- 5- An individual's lack of security is always connected to stress. Once stress takes control of a person, the person suffers diseases like heart disease.

#### 5) Components of Psychological Security:

According [17], the components of psychological security are:

##### a) Social Security:

I.e. the individual's feeling of satisfaction in their own environment, and their realization that they have a role to fulfil which in turn enhances their sense of belonging.

##### b) Physical Security:

I.e. satisfying the individual's physical needs; for society is responsible for providing security as a basic need for individuals.

##### c) Intellectual Security:

This refers to the individual's belief in his own faith and ideology without being oppressed.

#### 6) Methods of Implementing Psychological Security for Children:

For psychological security to be implemented, a child must first reach a degree of reassurance through their upbringing. According to [15], this can be achieved through the following ways:

##### • Satisfying an individual's primary needs

To achieve psychological security, the child's psychological and physical needs must be fulfilled.

##### • Self-confidence and trusting others

A child's self-confidence and trusting others is crucial achieving psychological security.

##### • Self-esteem and self-development

A child's self-esteem is fulfilled through acknowledging his potentials, skills and developing them.

##### • Acknowledging deficiency and incompleteness

It is the society's responsibility to clarify the real image of the world apart from the media and the fake images they propagate.

#### 7) Threats to Children's Psychological Security:

According to [18] highlighted the major threats to a child's psychological security as follows:

##### • Unhealthy Family Atmosphere:

Undoubtedly, living within a family where parents are always in dispute threatens a child's psychological security and at sometimes losing it altogether.

- **Threats:**

Living in a world full of turmoil or wars threatens a child's psychological security.

- **Weak Religious Faith:**

Dismissing Islamic faith while bringing up a child leads to anxiety, fear and depression and eventually loss of psychological security.

### **8) Psychological Security in Early Childhood:**

Psychological security is integral to humanity in general and children in particular. It is highly linked to the child's physical and psychological development as well as their connection to the environment around them [19]. Therefore, a child's sense of psychological security must be fulfilled. It enhances their personality formation, self-esteem and peace of mind. No wonder then, that depriving a child of psychological security hinders the healthy psychological development of a child. The absence of psychological development threatens the satisfaction of a child's basic needs and accordingly develop negative attributes like aggression and anxiety [20].

A child cannot develop psychologically unless he enjoys psychological security. A person's consistency across his life depends on the satisfaction of social security during his early childhood. If the child is raised in a warm family atmosphere that satisfies all his psychological needs, his sense of peacefulness and security is reflected on the community around him. Accordingly, he interacts with others in an optimistic manner and gains their appreciation. The family plays a vital role in providing concepts of psychological security. Based on a research conducted by [21], there is a statistically significant positive correlation between filial communication and children's psychological security.

### **Second Axis: Empathy:**

Empathy is a basic component of emotional intelligence. It is the cornerstone to balanced emotional intelligence. Psychology scholars have underscored the role of empathy and its impact on individuals' social life.

#### **1) The Concept of Empathy:**

Empathy is defined linguistically as mingling with others and understanding what others' feel [22].” As for terminology, [2] defines empathy as an emotional reaction or harmonious interaction which leads to a person's consideration for others and understanding their different emotional states. Finally, empathy is defined by [23] as the child's potential or skill that enhances his understanding of others' emotions.

It is clear from the above that all definitions agree that empathy is a positive feature that makes the individual understands others' feelings. Yet, it should be noted the importance of being empathetic to oneself; at the end of the day, you cannot give what you never had. For a person to develop genuine empathy towards others, he first has to be empathetic to himself.

#### **2) Factors affecting Empathy:**

According to [2]; [23] & [4] factors affecting empathy include the following:

- Parents should follow a democratic approach that helps the child acquire the concepts of psychological empathy.
- Life attitudes that promote and encourage displaying and development of empathy for children.
- Linguistic and cognitive development plays a major role in the development of the empathy process, so if a child can hear the views of others, the greater his or her emotional responses are.

#### **3) Components of Empathy:**

[24] indicates that empathy is made up of two components:

##### **I) Cognitive Component:**

It refers to the person's ability to adopt the concept; i.e. the potential of empathy to adopt the role or the perspective of the person seeking empathy. One tool of empathy is to put yourself in the other person's shoes and assume how they feel. This way a person's awareness of his emotions results from his adoption and understanding others' emotions.

##### **II) Emotional Component:**

The emotional component comprises of two elements: personal resentment (fear, terror, grief or sorrow, anxiety, disgust

and anger) as well as emotional care (kindness, happiness and trusting the person seeking empathy).

#### 4) Phases of Empathetic Development:

Hoffmann argues that empathy is an involuntary alternative response to the emotional signals sent to others. Such signals combine an interaction between cognitive and emotional consideration for others. Such consideration develops simultaneously with age in the following four phases (In: [25]):

##### Phase 1: Emotional Response:

In this phase, emotional responses are involuntary and comprehensive. They are mostly unreal and do not rely on a considerable part of high cognitive processes.

##### Phase 2: Intended Assistance Behaviour:

In this phase, the person responds to others' suffering. This is evident through the person's intended assistance for others.

##### Phase 3: Considering View-points

In this phase, the person realizes that others have innate needs different from his.

##### Phase 4: Emotional Suffering

In this phase, one becomes more aware that other people feel happy and sad because they become self-conscious and considerate of others.

#### 5) Fields of Empathy:

[22] Explained that there are several fields of empathy, through which the latter develops for both individuals and community as follows:

##### 1. Emotional Awareness:

This refers to people's responses to diverse environmental stimulants which is represented in their different modes of expressions such as face, gestures and movements.

##### 2. Emotional Cognition:

It means the person's ability to realize emotional moods and recognize them as well as understanding the conditional factors determining the emotional experience.

##### 3. Emotional Regulation:

It means the manner with which individuals modify their emotional experiences and accordingly their responses to different circumstantial requirements.

#### 6) Empathy in Early Childhood:

Empathy is a multi-dimensional concept. It comprises a wide variety of emotional, cognitive and behavioural structures. It is expressed through a variety of behaviours that can be observed on individual and collective levels [26].

Empathy is of paramount importance across different life stages and particularly early childhood. It is the first step that leads to promoting warmth and love between the child and the surrounding community. It also helps the child to adapt to his surroundings as it reduces aggression towards others.

Furthermore, children who display a good degree of empathy can interact well with others. They also have good social skills, positive mental health and are capable of bonding easily with their peers. Compared to their peers who display lower empathy skills, they are more charismatic and academically intelligent. Finally, they are less aggressive and more tolerant towards other children's needs and points of view [21].

The results of a research conducted by [22], have revealed that early childhood memories and experiences are integral to the person's later emotional development. Empathy is an attribute a person acquires through interaction with people around him during the stage of early childhood. Therefore, the researchers highlight the importance of family to enhancing children's empathy. Everyone around the child is responsible for creating experiences and interactions that promote empathy among children. Additionally, they should distance children from cruel and violent scenes or sad and terrifying news.

#### Third Axis: The Relationship between Psychological Security and Empathy:

The child's sense of psychological security and internal satisfaction in all aspects of his life helps to increase the level of empathy. This is achieved through spontaneously integrating empathy within the child's behaviour. Once the psychological security is felt, the child inevitably displays empathy towards others' feelings and attitudes. Such a pattern indicates that psychological security and empathy are interrelated behaviors in each other and complement each other.

According to [26], normal behaviour – a major component of which is empathy – and psychological security are positively connected. Both normal social behaviour and empathy highly influence the quality of a child's future life.

It is noteworthy within this context that social upbringing plays a vital role in developing empathy. The more the parents could provide their children with love, warmth, care and psychological security, the more the children would display empathetic behaviour towards others [2]. The same concepts were emphasized by [8]. He suggests that filial security and love have a positive impact on the child's empathy towards himself and others.

## 2 Research Procedures:

I) **Research Methodology:** the research adopts the descriptive and analytical method as it suits the research best.

II) **Research population and Sample:**

a) **The Indigenous Research population:** this comprises all children in the stage of early childhood whose ages range (4-9). It includes both male and females in kindergarten, public and private schools in Jubail Industrial City, Saudi Arabia.

b) **Research Sample:**

- **Pilot Sample:** this sample comprised 192 children in the early childhood stage whose ages average is (34.7) years old and with a standard deviation equivalent to (2.43).
- **Main Sample:** The research sample comprised 204 children where the females were (108) and the males were (96). Their ages range was (4-9) years old. They were selected randomly among children in the early childhood stage in Jubail Industrial City.

### Characteristics of the Research Sample:

This research is based on several variables pertinent to the personal characteristics of the members of the sample. In light of these variables, the characteristics of the research sample can be identified as follows:

**Table 1:** Preliminary Data for the Research Sample:

Characteristics	Response	Frequency	Percentage (%)
Gender	Male	96	47.06
	Female	108	52.94
	Total	204	100
Age	4: 6 years	106	51.96
	6: 8 years	52	25.49
	8: 9 years	46	22.55
	Total	204	100

The previous table highlights the preliminary data for the research sample based on the variables pertinent to the personal and functional characteristics of the members within the research sample.

III) **Research Tools:**

**First: Psychological Security Scale** (Prepared by: [1])

**Scale Description:**

The researcher developed the psychological security scale to achieve his research goals. The scale is made up of 28 clauses; where each has five alternative based on Likert scale.

**The Scale Validity:**

The psychological security scale was examined by 11 specialized arbitrators working across different Jordanian universities to verify its validity. Having reviewed their recommendation and observations, the researcher adopted the approved clauses. Some clauses were removed because they did not fully represent the axis they were used in while others were dismissed altogether as invalid or modified to suit the research.

### The Reliability of Psychological Security Scale:

The Cronbach's alpha equation was used to calculate the reliability coefficient for all the research tools to validate the reliability of the scale as a whole. The reliability coefficient, also known as the alpha coefficient, of the psychological security scale was (0.89). To ensure the reliability of the tool, the test and re-test method was applied. First, a test was given to another group other than the research sample. The group comprised 50 female children who suffered from minor mild mental disabilities. A re-test was held two weeks later. Accordingly, Pearson's R was calculated between their grades in test and re-test for the research tool as a whole. Furthermore the alpha coefficient was calculated using the internal consistency measure as per the Cronbach's alpha equation. The internal consistency coefficient as per Cronbach's alpha equation and the consistency of repetition for the tool as a whole is highlighted in table (6). Hence, the results proved convenient for the aims of this research.

### Ensuring the psychometric features of the psychological security scale within the current research sample:

#### a) Internal Consistency:

**Table 2:** The Correlation Coefficient between Psychological Security Items on the Scale Total Score

No.	The Phrase	The correlation coefficient of each item and the dimension it measures	Levels of significant
1	The child prefers to be isolated.	0.393	0.01
2	The child has got close friends.	0.515	
3	The child trusts those around him.	0.548	
4	The child gets angry if things don't come to his whim.	0.184	
5	The child knows what he's doing.	0.411	
6	The child evades activities and socializing with others.	0.465	
7	The child gets the attention of others.	0.643	
8	The child is bored fast.	0.233	
9	The child friendly to others.	0.515	
10	The child in high spirits.	0.706	
11	The child is happy with his colleagues.	0.736	
12	He feels happy with his colleagues	0.718	
13	The child is moody	0.231	
14	The child is helpful to others	0.540	
15	The child feels the love of the people when meeting them for the first time.	0.570	
16	The child is comfortable in the company of others.	0.611	
17	The child is happy with his family.	0.643	
18	The child feels calm and stable	0.650	
19	The child depends on the others.	0.231	
20	The child feels good following his parents' visit.	0.602	
21	The child expresses his happiness to others	0.681	
22	The child understands the feelings of anger and anxiety of the supervisor in charge	0.446	
23	The child smiles upon mentioning one of his family members.	0.517	
24	The child feels safe in the company of others.	0.543	
25	The child practices his/her favorite hobbies on his own.	0.367	
26	The child prefers being with others.	0.638	
27	The child finds it difficult to express his feelings.	0.267	
28	The child seems a little self-confident.	0.371	

❖ The value of (R) at the levels of significant (0.05) and (0.01) is equal to (0.139) and (0.182) respectively.

The previous table indicates that correlation coefficient for each item on the psychological security scale and the total score is significant at (0.01).

#### b) The reliability of the scale:

##### - The Cronbach Alpha Equation:



The reliability of the psychological security scale was validated through the pilot experiment. The scale was applied to a random sample of students by calculating the Cronbach’s Alpha equation. The result was (0.876). This value indicates the high reliability of the scale.

**- The Split – Half Method:**

The correlation between both parts of the scale was calculated. It was then verified using the Spearman- Brown formula. The reliability coefficient was (0.880) at the levels of significance (0.01). The value indicates that the scale has high reliability.

**Second: Empathy Scale:** (Prepared by: [2])

**Scale Description:**

The empathy scale was developed based on previous studies on empathy in children. It initially included (30) clauses measuring the overall degree of empathy. They were positive. The questions on this scale are addressed to the parents where their views about their children’s behaviour were taken into consideration.

**The Scale Validity:**

The validity of the empathy scale was verified through the apparent validity of its items. It was tested by a committee of arbitrators comprising Palestinian university staff, psychological advisors and educators. More than 80% of the arbitrators agreed on the scale items, which were then reviewed by a linguistic editor for rephrasing.

Having completed the necessary modifications, the empathy scale was designed to include 20 clauses measuring the total degree of empathy. All the clauses were positive. Only 5 clauses were removed based on the arbitrators’ opinion.

**Ensuring the psychometric features of the empathy scale within the current research sample:**

**a) Internal Consistency**

**Table 3:** The Correlation Coefficient for the Empathy Items on the Scale Total Score

No.	The Phrase	The correlation coefficient of each item with the dimension it measures	Levels of significance
1	The child feels for others.	0.531	0.01
2	The child interacts with other people's feelings.	0.725	
3	The child reacts positively to other people's problems	0.712	
4	The child feels others' hidden feelings.	0.644	
5	The child can easily understand other people's feelings.	0.739	
6	The child listens to other people's problems effectively	0.662	
7	The child understands other people's feelings.	0.753	
8	The child sympathizes with other people's feelings.	0.652	
9	The child can sense the feelings of his comrades.	0.736	
10	The child compliments others when needed.	0.641	
11	The child is influenced by others' reactions	0.407	
12	The child can understand the social signals that come from others.	0.670	
13	The child enjoys the company of others	0.612	
14	The child shares his friend their special occasions.	0.652	
15	The child keeps the secrets of others	0.571	
16	The child feels pain when he sees someone getting hurt.	0.442	
17	Helps others overcome their problems	0.791	
18	The child supports his colleagues when they're in painful situations.	0.743	
19	The child can make friends.	0.539	
20	The child cooperates with his classmates.	0.563	
21	The child avoids hurting others	0.423	
22	The child feels the emotions that others don't have to disclose.	0.714	
23	The child helps others solve their problems.	0.771	
24	The child understands his own feelings and his weaknesses.	0.727	

No.	The Phrase	The correlation coefficient of each item with the dimension it measures	Levels of significance
25	The child listens attentively to others.	0.578	

❖ The value of (R) at the levels of significance (0.05) and (0.01) is equal to (0.139) and (0.182) respectively.

The previous table indicates that correlation coefficient for each item on the empathy scale and the total score is significant at (0.01).

### c) The reliability of the scale:

#### - The Cronbach Alpha Equation:

The reliability of the psychological security scale was validated through the pilot experiment. The scale was applied to a random sample of students by calculating the Cronbach's Alpha equation. The result was (0.941). This value indicates the high reliability of the scale.

#### - The Split – Half Method:

The correlation between both parts of the scale was calculated. It was then verified using the Spearman- Brown formula. The reliability coefficient was (0.874) at the levels of significant (0.01). The value indicates that the scale has high reliability.

## 3 Discussion and Analysis of Research Results:

### The Statistical Tools Used in Data Analysis:

This section presents the results of the findings using the 21<sup>st</sup> edition of (SPSS).

The statistical analysis of the responses of the research sample as per their different axes displayed the following results:

### (1) What is the level of the psychological security for children in the early childhood stage at Jubail Industrial City?

The views of the research sample about **psychological security** were explored via their responses. Frequencies, arithmetic means, standard deviations and percentages for the **psychological security** scale were explored as follows:

**Table 4:** Frequencies, Arithmetic Means, Percentage and K<sup>2</sup> for Psychological Security Scale

Items No.	Mean	Standard deviation	Percentage	Level of predominance	K <sup>2</sup>	Level of significant	Order
1	3.67	1.25	73.33	often	49.28	0.01	15
2	3.49	1.24	69.80	Often	47.13		20
3	3.53	1.14	70.69	Often	62.13		16
4	2.27	1.22	45.49	Often	59.19		28
5	3.44	1.18	68.73	Often	46.05		22
6	3.53	1.30	70.59	Often	31.54		17
7	3.86	1.09	77.16	Often	83.89		8
8	2.37	1.18	47.45	Often	64.87		27
9	3.79	1.05	75.88	Often	79.73		11
10	3.79	1.11	75.78	Often	72.13		12
11	4.03	1.03	80.59	Often	113.40		5
12	3.99	1.03	79.80	Often	109.53		6
13	2.45	1.13	49.02	Often	50.17		26
14	3.81	1.08	76.27	Rarely	75.41		10
15	3.52	1.20	70.49	Often	44.28		18
16	3.70	1.07	74.02	Often	83.99		14
17	4.33	0.89	86.67	Often	213.55		1
18	4.03	1.02	80.69	Often	110.46		4
19	2.58	1.21	51.67	Often	62.28		25
20	4.26	0.94	85.29	Rarely	183.01		2
21	3.94	1.18	78.73	Always	97.23		7

22	3.50	1.16	69.90	Often	46.74		19
23	4.19	0.95	83.82	Often	155.76		3
24	3.74	1.12	74.71	Often	71.29		13
25	3.46	1.25	69.12	Often	33.06		21
26	3.83	1.17	76.57	Often	75.12		9
27	3.05	1.28	60.98	Often	12.52		24
28	3.43	1.36	68.53	Sometimes	20.07		23
<b>Total</b>	<b>3.56</b>	<b>1.14</b>	<b>71.20</b>	<b>Often</b>	<b>76.92</b>		

\* The table value of ( $K^2$ ) at the level (0.01) = 13.277, and at the level (0.05) = 9.488, at the free score (4)

Based on the aforementioned results, all the values of  $K^2$  are significant at the level of significance (0.01). The values of calculated  $K^2$  are greater than its table value at (0.01) at a degree of freedom equal to (4) as shown below the table. This proves that the items within this aspect are consistent. It also highlights that the perspectives of the members of the research sample are inclined in a particular direction and that frequencies are not distracted among the five alternatives. It also shows that the research sample agrees to the psychological security scale with percentage of (71.20%) and arithmetic average (3.56 out of 5) falling in the “often” category because it is located in (3.41 – 4.20).

**2) What is the level of empathy for a sample of early childhood at Jubail Industrial City?**

The opinions generated by the research sample about empathy through their responses where frequencies, arithmetic averages, standard deviations and percentage on the empathy scale are highlighted in the following table:

**Table 5:** Frequencies, Arithmetic Means, Percentage and  $K^2$  for Empathy Scale

Items No.	Mean	Standard deviation	Percentage	Level of predominance	$K^2$	Level of significant	Order
1	4.06	0.91	81.27	often	122.18	<b>0.01</b>	
2	3.62	1.16	72.45	often	46.25		
3	3.65	1.11	72.94	often	59.33		
4	3.40	1.23	68.04	often	36.20		
5	3.45	1.16	69.02	often	56.74		
6	3.34	1.20	66.76	sometimes	36.25		
7	3.52	1.20	70.39	often	39.58		
8	3.84	1.11	76.76	often	73.89		
9	3.69	1.14	73.82	often	57.81		
10	3.48	1.18	69.51	often	36.05		
11	4.00	1.07	79.90	often	104.28		
12	3.64	1.15	72.84	often	50.46		
13	4.11	1.02	82.25	often	132.81		
14	3.93	1.17	78.53	often	102.72		
15	3.67	1.16	73.33	often	56.78		
16	4.25	0.95	85.00	often	179.48		
17	3.51	1.22	70.29	often	46.10		
18	3.72	1.23	74.31	often	57.81		
19	4.12	1.01	82.35	often	138.01		
20	3.91	1.13	78.14	often	93.30		
21	3.98	1.15	79.61	often	109.04		
22	3.32	1.30	66.47	Sometimes	16.59		
23	3.48	1.33	69.61	Often	25.22		
24	3.49	1.27	69.71	Often	28.30		
25	3.87	1.17	77.35	Often	80.36		
	<b>3.72</b>	<b>1.15</b>	<b>74.40</b>		<b>71.42</b>		

\*The table value of ( $K^2$ ) at the level (0.01) = 13.277, and at the level (0.05) = 9.488, at the free score (4)

Based on the aforementioned results, all the values of  $K^2$  are significant at the level of significance (0.01). The values of calculated  $K^2$  are greater than its table value at (0.01) at a degree of freedom equal to (4) as shown below the table.

The results also show that the research sample agrees to the **empathy scale** with a percentage of (74.40%), arithmetic average (3.72 out of 5) falling in the category of “often” as it is located in (3.41-4.20)

**Verifying the major hypothesis:**

The major hypothesis states that “there is a statistically significant relationship between the psychological security and empathy for children in Jubail Industrial City”. To verify this hypothesis, both researchers calculated the correlation coefficient between psychological security and empathy provided by the by the institution in question, and the researchers calculated Pearson’s correlation coefficient as well.

**Table 6:** Correlation coefficient between psychological security and empathy

	Psychological security	Empathy
Psychological security	-	0.431**
Empathy	0.431**	-

\*\* indicates that the correlation coefficient is significance at (0.01).

The previous table shows that the correlation coefficient between psychological security and empathy is **(0.431)**. It is a statistically significant at the level of significance (0.01). This in turn shows that there is a directly proportional correlation between **psychological security and empathy**.

Accordingly the main hypothesis is verified. Therefore, the more psychological security is maintained, the better empathy skills young children at Jubail Industrial City can display and vice versa.

Both researchers saw that this conclusion is logical since the more psychologically secure the child’s environment is, and the more he/she is emotionally satisfied and treated with mutual respect, the more empathetic and positive skills and ability to understand others’ feelings will be shown by the child.

Moreover, this conclusion conforms to the findings by [11]; [4]. It further added that empathy represents the child’s internal circle of psychological security; which in turn helps him /her explore the surrounding environment and understand others’ feelings. The conclusion also conforms to the findings by [28] has also indicated a directly proportional relationship between mutual respect and empathy within a family and the level of psychological security a child enjoys. Meanwhile, [29] has concluded that there is a directly proportional relationship between depriving children of their sense of psychological security and their tendency to be aggressive towards others.

#### **Difference Results in Psychological Security and Empathy Scales for Early Childhood in Jubail Industrial City Based on Research Variables:**

##### **1) Are there statistically significant differences between the psychological security and empathy scales for children in early childhood state at Jubail Industrial City based on gender variable?**

T- test was used to verify this particular hypothesis. The following table highlights the results of the T- test.

**Table 7:** Results of the t- test for significance differences within the psychological security and empathy scales for children in early childhood state at jubail industrial city based on gender variable

No.	Item	Gender	Number	Arithmetic average	Standard deviation	Value (t)	Level of significance
1	Psychological security	Male	96	97.05	15.51	2.25	0.05
		Female	108	101.84	14.86		
4	Empathy	Male	96	91.91	18.15	0.82	Non-function
		Female	108	94.04	18.93		
6	Total	Male	96	188.96	28.60	1.73	
		Female	108	195.88	28.53		

\*T's table value at a free degree of (237) at the levels of significance (0.05) and (0.01) is equal (1.98) and (2.63) respectively.

The results of the previous table showed that there are statistically significant differences at the level of significance (0.01) in the **psychological security scale in the sample of children Jubail Industrial City** between males and females in favor of females. Those results also showed that there are no statistically significant differences at the level of significant (0.05) in the **empathy scale in the sample of early childhood children in the Industrial City of Jubail** between males and females.

The researchers argue that the differences in results between males and females in psychological security scale in favour of females in Jubail Industrial City are perhaps due to the fact that parents’ guidance and protection of female children are greater. It is customary in Arab societies to protect female children and provide them with security in all situations, which in turn lead to their feeling of being more secure, compared to male children who are deliberately trained by families to protect themselves and act in situations because they are the men in the future.

Such results conform to the findings by [30] which state that there are statistically significant differences in psychological security based on gender in favour of females.

However, it disagrees with the results concluded by [5] who found difference in psychological security based on gender in favour of males. The researchers argue that this conclusion is perhaps due to the older age group used in the previously mentioned studies. Hence, the physical and emotional formation is different since males feel more secure as they grow older compared to their female peers.

[29], [27] showed that there are no statistically significant differences in the psychological security research sample based on gender.

As for the lack of significant differences in **the empathy scale for the children sample in Jubail Industrial City** between males and females, both researchers argue that early childhood is a stage where hardly any difference in feelings or reactions towards others can be seen between males and females. It can also be attributed to their accommodation in Jubail Industrial City which is characterized by its serenity, quietness and beautiful landscape. Thus, the children grow up in a peaceful atmosphere which enhances their empathy skills.

Such results conform to the findings by [31] that stated that there are no difference on the empathy scale between males and females. Yet it disagrees with the results provided by [32] that found statistically significant differences in empathy between males and females in favour of females. The researchers argue that this conclusion is perhaps due to the older age group used in the previously mentioned studies. Hence, the emotional development of the girls which renders them more empathetic.

**2) Are there statistically significant differences between the psychological security and empathy scales for children in early childhood state at Jubail Industrial City based on age variable?**

The (One Way ANOVA) test was used to verify this hypothesis. The following table shows the results of the (One Way ANOVA) test, for the independent variable on the psychological security and the empathy scales **in the sample of children in the early childhood stage in Jubail Industrial City**, based on the child's age variable.

**Table 8:** Descriptive Data for Psychological Security and Empathy Scales in the Early Childhood Sample in Jubail Industrial City Based on the Child's Age Variable

Survey Items	Child's Age	Number	Arithmetic average	Standard deviation
Psychological security	4: 6 years	106	101.61	15.18
	6: 8 years	52	101.10	14.73
	8: 9 years	46	93.22	14.88
	Total	204	99.59	15.32
Empathy	4: 6 years	106	92.31	19.58
	6: 8 years	52	93.85	19.82
	8: 9 years	46	93.78	14.49
	Total	204	93.03	18.55
Total	4: 6 years	106	193.92	30.07
	6: 8 years	52	194.94	29.14
	8: 9 years	46	187.00	24.50
	Total	204	192.62	28.70

The previous table shows descriptive data for psychological security and empathy scales in the early childhood sample in jubail industrial city based on the child's age variable

**Table 9:** Results of one way anova analysis to indicate differences between the psychological security and empathy scales in the sample of early childhood in jubail industrial city based on age variable

No.	Item	Statement	Total squares	Degrees of freedom	Average squares	Value	Significance
1	Psychological security	Between groups	2419.92	2.00	1209.96	5.38	0.01
		Within groups	45231.49	201.00	225.03		
		Total	47651.41	203.00			
2	Empathy	Between groups	115.44	2.00	57.72	0.17	Non-function
		Within groups	69747.32	201.00	347.00		
		Total	69862.76	203.00			
3	Total	Between groups	1913.71	2.00	956.86	1.16	Non-function
		Within groups	165288.22	201.00	822.33		
		Total	167201.94	203.00			

The results of the previous table showed that there were no statistically significant differences at the level of significance (0.05) in the empathy scale in the sample of early childhood in Jubail Industrial City between different age groups, while there were statistically significant differences at the level of significance (0.01) in the psychological security scale. Furthermore, using an oral test for post-comparisons showed that the differences tend to be in favor of the age group (6: 8 years).

The researchers attribute the lack of statistically significant differences in empathy depending on the age variable, as a result of the similarity in the environment (Jubail Industrial City) in which the sample of research children live. The results may also be due to the nature of family and social life, families may enjoy a harmonious marriage, and good mental health that promotes love and respect among family members. This accordingly affected the research sample reflected on their feelings of empathy leading to a decrease in the statistical differences based on age variable. These results are consistent with the study of [2] which showed that there are no differences in the level of empathy depending on the age of the children comprising the research sample.

As for the statistically significant differences in psychological security in favour of the age group (6-8), an older age group than the current research sample, both researchers argue that it is a logical conclusion. A person's sense of security as they grow older due to their increased experiences, potentials, strength and interaction with others; all of which affect their sense of psychological security positively. This result conforms to the findings by [33]. They all concluded that a person's sense of psychological security increases as he/she grows older. For example, children in higher school stages are more reassured and self-confident than their peers in lower school stages. The older the child and the higher the school stage is, the more he or she has a sense of psychological security.

This result differs from the findings by [19] which states that there is no statistically significant difference in psychological security based on the age variable. This can be due to the fact that the research sample comprised older age group, which means that psychological security increases as children grow up. This is the very same conclusion of the current research.

#### 4 Recommendations:

- ⇒ Maintaining psychological security within the family because it is the cornerstone to a child's life.
- ⇒ The family should strive to enhance the child's self-esteem and self-acceptance since this helps in maintaining psychological security.
- ⇒ Embedding empathy within the child's behaviour through sharing others their sad and happy moments and responding to their feelings.
- ⇒ Encourage the child continuously because this is essential to the development of empathy within the child's character.
- ⇒ Engage the child in charitable and voluntary activities to enhance their empathetic attitudes.

#### 5 Further Research:

- Exploring the relationship between psychological security and parental attitudes for children in the early childhood stage.
- Exploring the relationship between psychological security and other psychological variables for children.
- Research on empathy and its connection to parental attachment on a sample of children.
- Exploring the connection between empathy and bullying within the stage of early childhood.
- Exploring the connection between empathy and the quality of life for children.
- The effectiveness of the empathy development programme and its role in maintaining psychological adjustment for children.

#### Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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