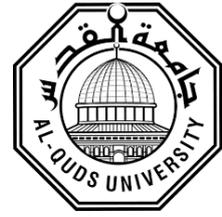


**Deanship of Graduate Studies  
Al-Quds University**



**Assessment of the quality of life and the psychological  
problems among adolescents living in foster homes; a  
comparative study**

**Vida Mazen Aziz Bannoura**

**M.Sc. Thesis**

**Jerusalem – Palestine**

**2017/1439**

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**Prepared by:**

**Vida Mazen Aziz Bannoura**

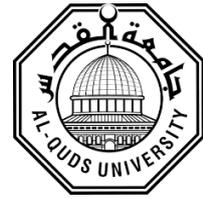
**Occupational Therapy from Bethlehem University/  
Palestine**

**Supervisor: Dr. Muna Ahmead**

**A thesis submitted in Partial fulfillment of requirements  
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### Thesis Approval

#### **Assessment of the quality of life and the psychological problems among adolescents living in foster homes; a comparative study**

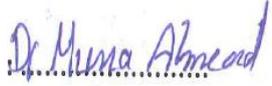
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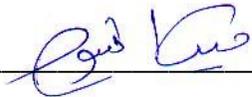
Jerusalem – Palestine

1439/2017

## **Declaration**

I certify that this thesis submitted for the degree of Master is the result of my own research, except where otherwise acknowledged. This thesis has not been

submitted for the award of any other degree at any university or institution.

Signed:  \_\_\_\_\_

Vida Mazen Aziz Bannoura

Date: 16/12/2017

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## **Abstract**

**Background:** foster care is the care for children and adolescents outside their natural house that alternates to parental care. Living in the foster care system can influence the child's perspective about future life and affect his/her quality of life as well as their psychological status. Foster care experience can affect the child emotionally, and it is associated with unfavorable general developmental outcomes as well as lower educational achievement.

**Aim:** to assess quality of life and psychological problems among adolescents aged between 13-18 years who lived in the foster homes compared to the adolescents who resided with their biological parents in the community in Bethlehem and Hebron cities.

**Method:** a case-control design was utilized to achieve this purpose. The data was collected between the middle of March, 2015 and finished at the beginning of May, 2015. Data was collected by using self-reported questionnaire. It consisted of socio-demographic data sheet, Brief Symptom Inventory-53 (BSI-53), and Pediatric Quality of Life Scale (PedsQoL-15). Statistical analysis was performed using the statistical package for Social Sciences (SPSS) version 18.0 and were analyzed by using the parametric test such as frequency, T-test, ANOVA, and Pearson Correlation test.

**Sample size:** the sample included 229 participants; 107 from the foster homes (cases) and 122 participants who resided with their biological parents in the community (controls) from the Islamic Charitable Society in Hebron and the SOS Village in Bethlehem.

**Findings:** the analysis of the participants showed that 42.1% of the cases were from the SOS Village in Bethlehem and 57.9% were from the Islamic Charitable Society in Hebron. Also, 36.1% of the controls were from SOS Village School in Bethlehem and 63.9% were from the Islamic Charitable Society. The majority of the participants from the foster homes were females (54.2%) and the majority of the participants who resided with their biological parents in the community were males (61.5%).

The overall QoL showed that the mean score for the participants from the foster homes was 65.7 compared to 67.8 of the participants who resided with their biological parents in the community.

In addition, five psychological problems have showed the highest scores among the adolescents living in the foster homes compared to the adolescents who resided with their biological parents in the community; which were interpersonal sensitivity, phobic anxiety, paranoid ideation, psychoticism, and the additional items. In addition, there were two psychological problems showed high scores among the adolescents living with their biological parents in the community compared to the adolescents lived in the foster homes; which were obsession-compulsive and hostility. Moreover, both groups had the same level of scores for three psychological problems; somatization, depression, and anxiety.

Moreover, the final regression model showed statistical significant relationships between the quality of life and the psychological problems and other independent variables such as having psychological history, gender, and place of residence.

Additionally, the Pearson's test revealed weak statistically significant relationship between quality o life and the psychological problems. The strongest relationship was for the emotional domain and the weakest one was for the physical domain.

**Conclusion:** the study found that the general QoL was good for the participants from the foster homes, but it was somewhat lower than the participants who resided with their biological parents in the community. Also, there were a weak and a negative relationship between the quality of life and the psychological problems.

تقييم نوعية الحياة والمشاكل النفسية لدى المراهقين الذين تتراوح أعمارهم بين 13-18 سنة  
الذين يعيشون في بيوت الرعاية البديلة مقارنة مع المراهقين الذين يقيمون مع والديهم في  
المجتمع في مدينتي بيت لحم والخليل

اعداد الطالبة: فيدا مازن عزيز بنورة

اشراف: د. منى حميد

### ملخص

**خلفية الدراسة:** الرعاية البديلة هي رعاية الأطفال والمراهقين خارج منازلهم الطبيعية التي تتناوب بدل رعاية الوالدين. ويمكن أن يؤثر العيش في نظام الرعاية البديلة على منظور الطفل بشأن الحياة في المستقبل ويؤثر على نوعية حياته وعلى حالته النفسية. تجربة الرعاية البديلة يمكن أن تؤثر على الطفل عاطفياً، ويرتبط ذلك أيضاً مع نتائج الطفل النمائية العامة وكذلك انخفاض التحصيل التعليمي للطفل.

**الهدف:** لتقييم نوعية الحياة والمشاكل النفسية بين المراهقين الذين تتراوح أعمارهم بين 13-18 سنة الذين يعيشون في بيوت الرعاية البديلة مقارنة مع المراهقين الذين يقيمون مع والديهم في المجتمع في مدينتي بيت لحم والخليل.

**منهجية الدراسة:** استخدمت الدراسة منهج الحالات والشواهد من أجل تحقيق هذا الغرض. حيث تم جمع البيانات بين منتصف آذار 2015 وانتهت في بداية أيار 2015 باستخدام الاستبيان المعبأ ذاتياً. وتتألف من ورقة بيانات اجتماعية - ديموغرافية، تقييم الحالة النفسية (BSI-53)، واختبار جودة الحياة لدى المراهقين (PedsQoL-15). تم إجراء التحليل الإحصائي باستخدام برنامج الحزم الإحصائية (SPSS) نسخة 18، واختبار البارامتري، واختبار تي تيست، والأنوفا، واختبار التكرار، واختبار بيرسون.

**حجم العينة:** شملت العينة 229 مشتركاً (107 مراهق ومراهقة من دور الرعاية البديلة و122 مراهق ومراهقة يقيمون مع والديهم البيولوجيين في المجتمع) من الجمعية الخيرية الإسلامية في الخليل وقرية الأطفال في بيت لحم.

**النتائج الدراسية:** أظهر تحليل المشاركين أن 42.1% من المشاركين كانوا من قرية الأطفال في بيت لحم و 57.9% كانوا من الجمعية الخيرية الإسلامية في الخليل. كما أن 36.1% من المشاركين كانوا يقيمون مع والديهم البيولوجيين في المجتمع من مدرسة قرية الأطفال في بيت لحم و 63.9% من مدرسة الجمعية الخيرية الإسلامية. وكانت أغلبية المشاركين من دور الرعاية البديلة من الإناث (54.2%) وكان غالبية المشاركين الذين أقاموا مع والديهم البيولوجيين في المجتمع من الذكور (61.5%).

وأظهرت النتائج بأن متوسط النقاط لمقياس جودة الحياة لدى المشاركين من دور الرعاية البديلة كان 65.7 مقارنة ب 67.8 من المشاركين الذين يقيمون مع والديهم البيولوجيين في المجتمع.

وعلاوة على ذلك، خمس مشاكل نفسية حصلت على أعلى الدرجات بين المراهقين الذين يعيشون في دور الرعاية البديلة مقارنة بالمراهقين الذين يقيمون مع والديهم البيولوجيين في المجتمع؛ وهم الحساسية بين الأشخاص، والقلق الرهابي، وأفكار جنون العظمة، والذهانية، ومشاكل إضافية أخرى. وبالإضافة إلى ذلك، كان هناك مشكلتان نفسيتان حصلتا على أعلى الدرجات بين المراهقين الذين يقيمون مع والديهم البيولوجيين في المجتمع مقارنة بالمراهقين الذين يعيشون في دور الرعاية البديلة؛ وهما الهوس القهري والعدائية. وعلاوة على ذلك، كان لكلتا المجموعتين نفس المستوى من الدرجات لثلاثة مشاكل نفسية: وهم الجسدية، والاكتئاب، والقلق.

بالإضافة، كشف اختبار بيرسون علاقة ضعيفة ذات دلالة إحصائية بين جودة الحياة والأعراض النفسية. وكانت العلاقة الأقوى هي المجال العاطفي والأضعف هو المجال الجسدي. وكانت العلاقة الأقوى هي المجال العاطفي وأضعفها كان المجال الجسدي.

وأيضاً، أظهر نموذج الانحدار النهائي علاقات ذات دلالة إحصائية بين جودة الحياة والمشاكل النفسية والمتغيرات المستقلة الأخرى مثل وجود تاريخ من المشاكل النفسي والجنس ومكان الإقامة. **الخلاصة:** وجدت الدراسة أن جودة الحياة العامة كانت جيدة للمشاركين من دور الرعاية البديلة، لكنه كان أقل إلى حد ما من المشاركين الذين أقاموا مع والديهم البيولوجيين في المجتمع. كما كانت هناك علاقة ضعيفة وسلبية بين نوعية الحياة والمشاكل النفسية.

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**List of abbreviations:**

<b>QoL</b>	Quality of Life
<b>PBCS</b>	Palestinian Bureau Central of Statistics
<b>MoSA</b>	Ministry of Social Affairs
<b>HRQoL</b>	Health-Related quality of life
<b>RCS</b>	Residential Care Settings
<b>SOS</b>	the name of the foster home in Bethlehem
<b>ICS</b>	Islamic Charitable Society in Hebron

# CHAPTER ONE

## INTRODUCTION

---

### 1.1. Introduction

Foster care is the care for children and adolescents outside their original house that alternates to parental care. The child placed in a family, institution, or a group home that differs to their real family, location, school, peers, and even their culture too (McDonald et al., 1993).

Children and adolescents tend to move to the foster homes due to different reasons. The most critical one is family disintegration due to poverty, parental conflicts, parental unemployment, abuse, and neglect. In these circumstances, children are moved to live in the foster homes where care is available for them (PCBS, 2010). Well-being and quality of life for children and adolescents who live in the foster homes have been significantly demonstrated by very poor and complex health parameters comparing with the general population of the same age, and mental health problems were associated with impaired daily functioning in this population (Damnjanovic et al., 2011).

Jozefiak and Kayed (2015) demonstrated in their study that adolescents who live out of their homes have poor QOL related to physical health because of lack of growing up barriers, poor emotional well-being, unsupportive social environment, poor self-esteem due to child maltreatment that lead to low happiness and satisfaction levels which can create depressive symptoms, and poor relationships with their friends because of frequent movements to different organizations according to their ages and conditions which can break up peer relationships. Also, they may become depressed, anxious, behaviorally inappropriate, socially withdrawal, or emotionally unstable. For example, they have found that 27% of children living in the foster homes or institutions have behavioral and emotional problems; while 28% had other problems that included physical conditions that impacted their ability to do activities (Jozefiak T. and Kayed N., 2015).

## **1.2. Aim of the study**

The aim of this study is to assess quality of life and psychological problems among adolescents aged between 13-18 years living in foster homes in Bethlehem and Hebron Governments.

## **1.3. Study Objectives**

1. To assess the prevalence of the psychological problems in adolescents living in foster homes compared to those living with their families.
2. To compare the difference in the QoL factors; physical, social, emotional, and school domains between the two study groups.
3. To compare the difference between the two study groups regarding the psychological problems such as somatization, obsession-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism.
4. To examine the effect of the socio-demographic factors on both QoL and the psychological problems in the two study groups.

## **1.4. Problem Statement**

The table (1.1) below showed that Hebron and Bethlehem had the highest percentages in of children who lived in institutions (foster homes and orphanages). Quality of life and psychological problems are often neglected among Palestinian children and adolescents who lived in institutions, and consequently remain untreated. In addition, there is a lack of studies that assessed their psychological problems and its relation to quality of life.

**Table (1.1): The percentage of children and adolescent living in the foster homes and orphans (single and both parents) in Palestine in 2012**

<b>Governorate</b>	<b>%</b>
<b>1. Nablus</b>	8.9
<b>2. Yatta</b>	7.5
<b>3. Salfit</b>	1.0
<b>4. Tubas</b>	2.2
<b>5. Tulkarm</b>	7.6
<b>6. Qalqilya</b>	1.4
<b>7. Jericho</b>	4.4
<b>8. Hebron</b>	35.4
<b>9. Jerusalem</b>	6.5
<b>10. Bethlehem</b>	13.6
<b>11. Jenin</b>	6.3
<b>12. Ramallah</b>	5.2
<b>Total</b>	100.0

Source: Palestinian Central Bureau of Statistics, 2013

Foster houses in Palestine are related to local organizations and communities that support vulnerable children who are unable to stay with their parents due to different reasons; they can find a new home. These foster homes provide basic goods and services such as health care and education. Children grow up with their brothers and sisters in a safe environment. Foster homes work closely with the children's family of origin, so that the children can return to live with them. They work to make sure that children receive a good education, which will help them in the future. They support young people until they are able to live independently, they give them access to further education and vocational training so that they have the right skills to find a job, or start their own business. They have also provided emergency relief when the situation has been particularly critical. Most recently they support vulnerable families and children and once the families have received the support they need, children return to their home.

### **1.5. Justification of the study**

In Palestine, children and adolescents left their biological parents either permanently or temporarily to live in the foster homes due to family disintegration, war (especially in Gaza), disability, death of their parents, lack of resources, parent separation, divorce, poverty, violence, physical, sexual and mental abuse either from the individual's belonging

who should be their caretakers or a stranger. The most common causes that lead to place children and adolescents in the foster homes are economical status (PCBS, 2006; 2003).

Palestinian Ministry of Social Affairs (2003) revealed that there were 1680 children and adolescents living in institutions including 1042 males and 638 females lived in 25 institutions (8.2% under the age of six, 44.1% aged between 2-12, and 47.7% aged between 13-17 years) (PCBS, 2003). In 2010, 3% of children and adolescents aged between 0-17 were orphans (2.6% in West Bank and 2.7% in Gaza Strip) (PCBS, 2010). These children and adolescents were provided assistance by the Ministry of Social Affairs, and table (1.1) above showed the number of served children and adolescents until December 31st, 2012.

The literature review revealed a lack of studies in Palestine that assessed the quality of life and psychological problems among children and adolescents who lived in the foster homes in Bethlehem and Hebron cities as they had the highest number of children and adolescents who lived in institutions. Indeed, to our knowledge this may be the first study conducted for this purpose.

## **1.6. Study expected outcome**

The study may help policy makers and managers in the Palestinian Ministry of Social Affairs in planning proper services and interventions for adolescents in the foster homes, to establish standards to promote children's health and to protect this age group from developing psychological problems, and to improve their quality of life.

## **1.7. Feasibility of the study**

- Ethical approval was obtained from Al-Quds University to facilitate the data collection process.
- An email was sent to the centers related to the questionnaires' authors to get the assessment and their approval as well.
- An ethical consent form was obtained for the foster homes' managers and school managers to protect the rights and welfare of the students participating as subjects in a research study.

- A consent form was provided with each questionnaire for every participant as a first page.
- The researcher herself is working at one of the institutions that had children who lived in the foster homes which facilitated the process of conducting the study.
- An institutional review board (IRB) at Al Quds University has sub-committees at the faculties to review the thesis proposals. The Faculty of Public Health accepted the thesis proposal and gave its consent to implement the study.

## **1.8. Summary**

- The literature reveals a lack of studies in Palestine that assessed quality of life and psychological problems among adolescents aged between 13-18 years who lived in the foster homes and the adolescents who resided with their biological parents in the community in Bethlehem and Hebron.
- The aim of this study is to assess the quality of life and psychological problems among adolescents aged between 13-18 years, who lived in the foster homes and the adolescents who resided with their biological parents in the community in Bethlehem and Hebron.
- The study presented the aim of the study, study objectives, problem statement, study justification, feasibility of the study, and study expected outcomes.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

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#### **2.1 Studies that assess the QoL and the Psychological problems**

Many studies have been conducted to assess the quality of life and psychological problems among adolescents living in the foster homes or out-of-home care. For example, one study was carried out by Carbone et al., (2007) to compare the health-related quality of life of 326 children and adolescents aged between 6-17 years living in home based foster care metropolitan Adelaide, with a random sample of 3582 children and adolescents aged 6-17 years living who resided with their biological parents in the community in Australia. Data were collected by using parent and child versions of the Child Health Questionnaire (CHQ). The results of this study showed that young people in home-based foster care had significantly poorer HRQoL in a wide range of different health domains than those in general community, because they have experienced limitations in their daily functional activities due to emotional, behavioral, and physical health problems. Also, children and adolescents in home-based foster care with mental health problems had significantly poorer HRQoL in many health domains including demographic characteristics than those without mental health problems. Accordingly, the study showed that children and adolescents in foster care repeatedly demonstrated the immature, aggressive, and antisocial behavior. Also, they were more likely to experience feelings of depression, anxiety, low self-esteem than children and adolescents who resided with their biological parents in the community. The researchers concluded that children and adolescents in the foster homes had the same symptoms shown in HRQoL as those with mental health disorders (Carbone et al., 2007).

Another cross-sectional study was conducted in Serbia by Damnjanovic et al., (2011) to evaluate the effects of mental health on the quality of life in children and adolescents aged between 8 – 18 years who were living in foster care. The study sample included 216

children and adolescents. The data was collected by using the Pediatric Quality of Life Inventory (PedsQL), the Screen for Child Anxiety-Related Emotional Symptoms to assess the levels of anxiety and depression symptoms (SCARED), and Short Mood and Feeling Questionnaire (SMFQ). The results showed that anxiety, depression symptoms, and general mental difficulties account for significant variations in quality of life ( $p < 0.00$ ). The researchers concluded that there was a significant level of mental health problems that were correlated with poorer quality of life and they showed that children and adolescents from foster care had significant adverse effects on the quality of life and more frequently had mental problems. They had proved the idea that children and adolescents' mental health was associated with different areas of their daily life functioning and that poor quality of life was interrelated with mental health. For example, the authors indicated that anxiety, depression, and mental difficulties among children and adolescents in the foster homes had substantial adverse effects on their daily livelihood (Damnjanovic et al., 2011). Moreover, Attar-Schwartz (2008) examined in his study the relationships between the psychosocial conditions among most children at risk in residential care settings (RCS), and many variables that characterize the children, their families, and the RCSs. The study was based on data reported annually by social workers of all the children in RCSs supervised by the Ministry of Welfare; it included 4420 children (ages 6–18) in 57 RCSs. The researcher used Child Behavior Checklist. The findings showed that males had higher levels of aggression and fewer depression/anxiety symptoms than females. Older children and adolescents who lived in the foster homes and who had regular contact with their parents had fewer psychosocial problems. Also, the RCS characteristics that were associated with better child outcomes include lower levels of peer violence in the setting, and more after-school activities (Attar-Schwartz, 2008).

Additionally, Hegar and Rosenthal (2011) examined in their study a range of outcomes for children in foster care who had siblings, using a large, national United States database. The sample included 1701 representative children who had been in long term foster care placements for approximately one year and up. The researchers used three types of sibling placements, which were defined: split (child had no siblings in the home), splintered (at least one sibling in the home), and together (all siblings in the home). The study results reported limited significant findings. Neither foster parents' nor youths' reports of behavioral problems differ by sibling placement status. As rated by teachers, academic

performance in the group placed together exceeds that in both of the other groups. For children in kinship homes, teachers also reported less problematic internalizing and externalizing behavior for the splintered and together groups than for the split group. Children in the splintered group also responded more favorably than those in the split group to questions of closeness to the primary caregiver and liking the people in the foster family (Hegar and Rosenthal, 2011).

A further study was carried out in South Africa (Ghana) (2014), to explore stress, ten coping strategies (distraction, social withdrawal, wishful thinking, self-criticism, blaming others, problem-solving, emotional regulation, cognitive restructuring, support-seeking, resignation), and overall quality of life of orphaned children and adolescents in comparison to non-orphans who resided with their parents. The sample size was 200 participants aged between 7-17 years; divided into 100 children and adolescents who were living in four orphanages, and another 100 non-orphans from two public schools. The data collection tools were Children's Depression Inventory, the Revised Children's Manifest Anxiety Scale, the Kidcope Scale, and the World Health Organization Quality of Life-BREF Version. All participants had completed assessments and questionnaires. The study results showed that both orphaned and non-orphaned children and adolescents presented with mild-to-moderate depression as well as equally distressed irrespective of their parental status. However, the depression symptoms among the orphaned children were due to the loss of their parents, loss of individual care, family separation, and social changes. Also, the study results demonstrated that those children and adolescents had added other conditions that lead to psychological symptoms such as poor stimulating environment, poor caregiving, strict routines, the frequent absent of caregivers, stigma, and administration restraints. Moreover, children and adolescents experienced some factors that affected their health and well-being such as lack of financial support, poor school performance, and lack of parental contact (Yendork and Somhlaba, 2014).

Another study was conducted by Nelson et al., (2014) to describe the health-related quality of life (HRQoL) of adolescents in residential care and to examine selected correlates. The study sample size included 229 adolescents aged 17 years old who were living in a residential care setting. Those participants completed a validated measure of health-related quality of life, and some of their demographic and psychotropic medication data were accessed from an electronic database maintained by the residential care program to be used

to examine correlations of Health-Related Quality of Life. The results showed that approximately 25% of youth had at least one health-related quality of life score under the range of “at risk” indicating significant impairments in health-related quality of life, and they were at risk of developing a variety of physical, behavioral, and emotional issues. Thus, the results had shown day-to-day impairment in overall well-being experienced by a significant number of adolescents living in foster care. Moreover, younger age and female gender were associated with poorer health-related quality of life more than males. Psychotropic medication prescriptions were associated with poorer health-related quality of life. A significant percentage of adolescents in residential care experienced the suboptimal health-related quality of life, and certain demographic and clinical factors appeared to be associated with greater risk (Nelson et al., 2014).

Further, another cross-sectional study was conducted by Turney and Wildeman (2016) to compare the mental and physical health of children aged between 0-17 years old placed in foster care to the health of children not placed in foster care. The researchers used data from 2011–2012 National Survey of Children’s Health to compare parent-reported mental and physical health outcomes of children placed in foster care to outcomes of children not placed in foster care, children adopted from foster care, children across specific family types (e.g. single-mother households), and children in economically disadvantaged families. The results showed that in foster care were in poor mental and physical health relative to children in the general population, children across specific family types, and children in economically disadvantaged families. And it showed that children placed in foster care, compared with children who resided with their biological parents in the community, had a greater likelihood of having mental health problems including Attention deficit hyperactivity disorder/ADHD, depression, anxiety, and behavioral or conduct problems. Also, there were few differences in fair or poor health, learning disability, developmental delay, asthma, obesity, speech problems, hearing problems, vision problems, and activity limitations between children placed in foster care and children in most other children who lived with both or single parents in a household (Turney and Wildeman, 2016).

Moreover, another study conducted by Simsek and Erol (2007) examined the prevalence of emotional and behavioral problems and associated risk and protective factors among 17000 children and adolescents ages from 6 to 18 years. Those children and adolescents

reared in various orphanages in Turkey under the auspices of the Social Services and Child Protection Administration and compared this sample with a nationally representative community sample of similarly-aged youngsters brought up by their own families. The researchers used Teacher's Report form (TRF) and Multidimensional scale of perceived social support (MSPSS). The results showed that the Teacher's Report Form (TRF) Total Problem score was higher for children and adolescents in orphanage care than the adolescents who resided with their biological parents in the community (23.2%, orphanage v. 11%, community). Regular contact with parents or relatives, between classroom teachers and orphanage staff, appropriate task involvement, perceived social support and competency were significant protective factors against emotional and behavioral problems. The findings suggested an urgent need for the development of early intervention programs that promote community care of children by preventing separation from families, provision of support services for families in need, and development of counseling programs to prevent abandonment, abuse, and neglect (Simsek and Erol, 2007).

Additionally, another study was conducted by Karadag and Ozcebe (2011) to assess the distribution of the psychological symptoms and their association with the level of physical activity among adolescents living in the orphanages. The study included 166 adolescents aged between 13-16 years old in Ankara, Turkey. The data were collected cross-sectionally in 2008 via questionnaires, including the Brief Symptom Inventory and Kiddo-KINDL Health-Related Quality of Life Questionnaire. The results showed that the females, who did not go to school or work, dissatisfied with school, contact with the family, chronic disease, chronic medication use, sleep problems, regular tobacco use, chronic disease in the family, and low quality of life score were associated with increased risk for mental disorders. Also, all BSI global scores were significantly higher among the girls which may indicate that the girls had a higher risk for mental disorders than the boys. However, physically active adolescents had the higher quality of life scores and the lower depression scores compared to those of their less active counterparts (Karadag and Ozcebe, 2011).

As well, another study was conducted by Poletto and Koller (2011) aimed to investigate the subjective well-being of children and adolescents attending school and living with their families as compared to those living in youth offenders institutions. The sample included 297 children and adolescents in situations of social vulnerability aged between seven and sixteen years old. They used a structured interview, a positive and negative affect scale,

and a multidimensional life satisfaction scale. The results confirmed that institutionalized children and adolescents experienced more negative effect regarding development contexts. However, institutionalized children and adolescents did not differ from those living with their families regarding life satisfaction, well-being, and positive affect (Poletto and Koller, 2011).

Likewise, one study was conducted to investigate and compare the subjective well-being of children in residential care centers versus those from the general population living with their families. The study included 218 children aged between 8-13 years where half of them were under the residential care, and the other half were living with their families. The researchers used Personal Wellbeing Index – School Children (PWI-SC), General Domain Satisfaction Index (GDSI) and Overall Life Satisfaction Scale (OLS). The results indicated that all items significantly discriminated towards children living with their families. The researchers concluded that differences might be related to transitions and life experiences prior to institutionalization. Children with fewer changes managed to maintain their social bonds and found greater consistency in care, which seemed to influence their sense of well-being (Schutz et al., 2014).

Finally, one study was conducted in Norway by Jozefiak and Kayed (2015) to investigate the quality of life by self and proxy evaluation among 400 youths aged between 12–20 year old, living in residential youth care and to compare their quality of life with the general population and adolescents receiving care from mental health services. The questionnaire was used “Measuring Health-related Quality of Life in Children and Adolescents (KINDL-R)”. The results revealed that the quality of life in adolescents living in residential youth care showed a significantly ( $p < 0.001$ ) poorer quality of life compared to the general population on the life domains physical and emotional well-being, self-esteem, and relationship with friends. Adolescents evaluated their physical well-being as worse compared to adolescents in general populations. The authors concluded that the study results raised major concerns about the poor quality of life of the adolescents living in residential youth care, whereas, challenging the child welfare system and decision makers to take action to improve the quality of life of this group. Those adolescents had lower QoL in relation to their physical health, poor QoL in emotional domain, poor self-esteem, poor QoL in school domain compared to the general population that was measured

using the Pediatric Quality of Life Inventory Version 4.0 –PedsQL- (Jozefiak and Kayed, 2015).

In summary, most of the previously discussed studies low quality of life domains and higher prevalence of psychological problems among the participants from the foster homes compared with the participants who resided with their biological parents in the community. All of these studies were conducted in countries other than Palestine.

## **2.2. Summary**

- Foster homes are places or institutions where adolescents who live outside their natural houses and are provided of alternative care through other people.
- There are four domains for quality of life according to the instrument that was utilized; in the current study physical functioning, emotional functioning, social functioning, and school functioning.
- Psychological problems can negatively affect adolescents' quality of life who lived in the foster homes than the adolescents who resided with their biological parents in the community.

The next chapter discusses conceptual framework of the current study.

## CHAPTER THREE

### CONCEPTUAL FRAMEWORK

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#### 3.1. Introduction

A family is the smallest social unit of society that contains two or more persons connected either biologically by blood, adoption, marriage, or emotionally, and legally. They share common norms and activities, goals, values, relationships, emotional ties, and long-term commitments to one another, as well as related through affection, obligation, dependence, or cooperation. Family members include two adults with their children that interact daily and provide domestic needs of children and assuring their survival. Moreover, it has other classifications as it described by the natural and fundamental group unit that is protected by the society and the state (Rothausen, 1999).

The family is a complex structure of an interdependence group of individuals who share a mutual sense of history, common experiences and emotional attachment, and formulate simple and internal policies to meet individuals' needs. There are different functions and roles that each family can provide to its members related to physical, mental, emotional, social, and spiritual well-being; however, it depends on the role's level of priority. The primary function of the family is the reproduction to widen from a nuclear family into an extended one. As well, the most important role is providing various recourses related to food, clothing, money, and shelter which can be recognized as the economic function. Those basic needs can give the child a sense of internal security and safety environments especially if family members provide comfort, warmth, and reassurance for nurturing and supporting (Lawrence and Font, 2015). Moreover, the family is an important financial source for adolescents that provide financial security and stability (PCBS, 2008).

Also, the family can provide life skills for its members that include physical development and abilities, social and emotional maturity and regulation, moral development, communication and expression, educational and intellectual abilities and skills through school. However, the most critical function is the emotional support that provides love, guidance, sense of belonging, comfort, and forgiveness for its members (Boss et al., 1993).

Further, the family can provide maintenance and management through leadership, decision-making, handling family finances, maintaining appropriate roles to the family, and maintaining behavioral discipline standards for adolescents (Lawrence and Font, 2015). Accordingly, there is another range of primary skills and features that adolescents can achieve through his/her family such as behavior during certain contexts, self-concept, self-esteem, worth and loyalty, social competence, and long-term health (Mooney et al., 2009).

Parental behavior plays a significant and critical role in understanding their adolescent's developmental, emotional, cognitive growth, and health and well-being concerning family change. Parents can provide sufficient authority, encouragement, monitoring, and stable housing which can provide adolescents a sense of well-being. However, the absence of family structure can produce long-term negative effects on adolescents. As a result, they will experience different problems related to mental health and well-being, alcohol use, lower educational attainment and qualifications, and relationship problems. Other issues include behavioral problems, leaving school or home, reporting more depressive symptoms, higher levels of smoking, and drug use (Mooney et al., 2009).

Adolescence is a critical and serious stage in child development. Along these years, adolescents between 11 – 18 years old begin to discover their own personality, their place in the larger society, and their own empowerment. These children and adolescents need special efforts to encourage and promote their overall health and development. Also, they need help building healthy connections and relationships with other adolescents and caring adult in the environment that they are living in, and in acquiring other skills especially within their educational and living aspects that can support them to shift to the other stage of child development (Bass et al., 2004).

Psychological health refers to the individual's function and adaptation to physical and social environments. It can assist them to acquire positive experiences and to live up to their full potential. An absence of psychological health can cause depression, anxiety, and loss of control of one's feelings (Mattiuzzi, 2008). Psychological health contains different concepts and experiences about the individual stability and certain conditions in maintaining stable and satisfying relationships. It includes adaptation, reflection toward the environment, belief, flexibility, and coping strategies to respond to stress resourcefully to avoid painful events without difficulty. It reflects a complex aspect in adolescence's

relationships with their physical health and their capacity to succeed at school, work, and in the society as well (Henriques, 2011).

Parents are important in all adolescents' developmental stages including physical, intellectual, mental, and social. Their existence in adolescents' life provides them with encouragement toward challenges, supports their experiences that allow the child to safely and productively explore surroundings and interact with their environment, and helps them to go through different developmental tasks because they are their child's first teacher. Therefore, the loss of parents can negatively affect all the foregoing aspects of adolescents' life. Lower-self-esteem, lower self-worth, negative feelings, and poor school performance will be shown, as well as involving in unhealthy lifestyle decisions. Further, they wouldn't be able to overcome different issues related to their own future life (Duncan and Stein, 2004).

Moreover, family atmosphere and functioning have a greater impact on outcomes than family structure. High level of conflicts between parents, family breakdown, poor mental functioning, stress, and poverty can all negatively affect family health. So adolescents intended to move from their own houses to live within another group-care setting such as foster homes when there are some problems within the family structure or within the parents themselves to improve their life conditioning and increase their quality of life (UNISEF, 2005).

### **3.2. Foster homes**

Foster care is the care for children and adolescents outside their original house that alternates to parental care. The child placed in a family, institution, or a group home that differs to their real family, location, school, peers, and even their culture too (McDonald et al., 1993).

A foster home is a social unit living together or a household in which an orphaned or delinquent child is placed and supported by a social-service agency. Children and adolescents who couldn't live independently were residing in the foster homes and provided by parental care by someone than its biological or adoptive parents (a group of caregiver) (Chipunqu and Bent-Goodley, 2004).

It is a temporary living system in which some of the caregivers or alternative adults provide a stable family life or parental care for adolescents whose birth parents aren't able to care for them at a point of time due to a variety of reasons. Such reasons are poverty, homelessness, unemployment, substance abuse, unequal education and family-community violence. The temporary care that is provided by the foster homes helps out to sort some problems and to help those adolescents and young people throughout the difficult period of their lives. If their problems have been resolved and their biological parents can look for them safely, they will be able to return to their home (Chipunqu and Bent-Goodley, 2004).

As mentioned previously, one of the main reasons that children and adolescents move to live in the foster homes is poverty. It is the first factor that affects adolescents' childhood directly and reflectively, because it can hinder the accessibility to their basic needs such as proper food and nutrition, healthy shelter, sanitation facilities and education. It can affect their children and force them into early adulthood. Additionally, poverty can form social differences of childhood among the society, where children and adolescents from poorer families won't be given the opportunity to live as a "child" comparing to their peers from families with high economic status. Consequently, parents who couldn't meet their children's basic needs, they will move them to another setting that can provide a safe and stable environment (Mooley et al., 2009).

Other factors that tend to move children and adolescents to the foster homes are parental conflict, separated parents, family breakdown, or divorced parents which are associated with adverse outcomes in children and can impact their well-being. The family atmosphere can seriously affect children adolescents and can hinder their role performance as adolescents among different life aspects such as physically, mentally, cognitively, and behaviorally (Mooley et al., 2009). Violence and neglected experiences from parents among adolescents could increase the risk of having different disabilities such as physical, cognitive, or mental difficulties. Consequently, children and adolescents were immediately taken from their biological parents' house to live in the foster homes according to their ages (SOS Village, 2009).

Children who are left by their biological parents since birth are another example for children and adolescents who lived in the foster homes. These children have no reference from birth; therefore, they are at higher risk to have different types of problems and consequences that can affect their well-being than other children and adolescents who

moved from their biological parents to live in the foster homes. Behavioral and psychological problems can arise at school as a result of depression and anger, living situations and economic security can become tenuous, and providing food and health care can be at risk (SOS Village, 2009).

The target for the adolescents to be in a foster home or foster care system is to seek out the basic life needs that any child can have. Additionally, it can allow children and adolescents to have the chance to realize potential and to live stable, safely, and securely within a loving and caring environment to develop and build a normal future life. As a result, in 1997, the Adaptation and Safe Families Act (ASFA) recommended three goals for the child's public health and welfare; safety, permanency, and well-being to avoid symptoms that adolescents get after experiencing foster home setting (Sullivan and Zyl, 2007).

### **3.2.1. The impact of the foster homes on adolescents' psychological health**

Adolescents who enter the foster homes and start a new beginning may experience grief due to birth parents separation and loss of their relationships with them and with the previous environment. Chipunqu and Bent-Goodley (2004), illustrated in their study, that adolescents face psychological challenges as they are trying to adjust themselves after separation. They estimate that 30% to 80% of those adolescents demonstrate emotional and behavioral problems while they are experiencing the new atmosphere. Also, they show that after three months of being in the foster homes, adolescents exhibit signs of depression, aggression, and withdrawal. Others may show evidence of sleep disturbance, excessive eating, self-stimulation, failure to thrive, hoarding food, and rocking (Chipunqu and Bent-Goodley, 2004).

Further, adolescents who lived in institutional care like foster homes might not receive a nurturing and a stimulating environment needed for normal and healthy growth and development. This issue based on different reasons that face adolescents in the foster homes, and each experience may affect the child's health negatively either physically, psychologically, mentally, or socially (Ferrara, et al., 2013; Campbell and Ramey, 1994). Even though the foster homes environment provides adequate nutrition and health care, it lacks a playful cognitively stimulating environment and stability in a child-caregiver relationship that could help adolescents to experience life balance out of their own homes

(Van IJzendoorn et al., 2014). Also, children and adolescents who exposed to different conditions in the foster homes might cause neurodevelopment delay. These developmental impairments among institutionalized infants -as an example- result from a lack of sensory and social stimulation, with long hours spent supine in cribs without toys or interpersonal contact (Akay et al., 2006).

School adjustment has been identified as a major difficulty for adolescents who are living in foster care. This problem has considered the most serious one that could affect their future life for stable employment, higher education, and other critical areas. And the main reason for those problems related to several factors such as gender, length of stay in foster care, and the quality of parents' visits. Also, factors related to the same setting such as the placement structure, suitability of the physical environment to adolescents' needs, activities after school, and peer violence (Attar-Schwartz, 2009).

Accordingly, these adolescents are at risk to have lower educational levels and achievements. Chipunqu and Bent-Goodley (2004) showed that 15% of adolescents refused to start school again after they enter the foster home, 55% of them refused to remain in their schools after entering the foster home, and 30% of them transferred to other schools before the semester has ended. Those adolescents were not able to face the challenges, they weren't feeling ready to support themselves, they weren't satisfied with their school achievements while they were in the foster homes, and they were forced to change their schools as they were feeling stigmatized (Chipunqu and Bent-Goodley, 2004). Consequently, lower educational achievement can lead to low cognitive performance and challenges. Most adolescents are often showed low IQ and severe language delays longer stay that seems to be associated with larger delays because foster homes provide the only firm basis for further intellectual development (Van IJzendoorn et al., 2014).

For example, studies were conducted to assess the developmental issues for young adolescents in foster care regarding brain development, attachment, adolescents' sense of time, effects of neglect, and their response to psychological stress (Perry et al., 1995; Perry and Pollard, 1998). They assessed adolescents' personality traits, learning processes, and coping with stress and emotions including 500,000 children and adolescents in the United States who lived in the foster homes. The studies' results showed that brain development and nerve connections could be influenced by the negative environmental conditions, lack of stimulation, and violence within the family. Moreover, adolescents suffered from

emotional distress, discomfort, lack of stimulation, and poor self-esteem while being in the foster homes. These consequences were due to the loss of parenting process, psychological sense, healthy attachment and quality of relationships, day-to-day attention to their physical care, nourishment, comfort, affection, and stimulation (Perry et al., 1995; Simms, 1991). Also, Ferrera et al. (2013) revealed in their study that children and adolescents showed significant differences ( $P < 0.05$ ) for allergy, gastrointestinal diseases, and caries between children in foster care and the general population (Ferrera et al., 2013). The author concluded that children and adolescents who had post-traumatic stress disorder were shocked when they felt themselves in an anxious environment. Several repeated traumatic experiencing events could lead to impairment in some functions resulting in behaviors such motor hyperactivity, anxiety, mood swings, impulsiveness, and sleep problems (Perry et al., 1995).

Another serious issue was attachment security. Adolescents in the foster homes initially experience their separation from their biological parents or loss of their parents and other caregivers. They suffered from the effects of living in institutions even when their basic physical needs are met. Thus, they experience difficulties in developing stable and continuous attachment relationships with the caregivers in the foster homes due to caregivers' neglect, physical violence, and to the limited amount and poor quality of contact with their caregivers (Van IJzendoorn et al., 2014).

Also, peer violence, unsupportive staff, poor food quality, poor stimulating environment, strict routines, the frequent absent of caregivers, stigma, and administration restraints are examples that occur inside the foster homes and can lead to psychological symptoms (Yendork and Somhlaba, 2014). Lack of skills among staff who are working with those adolescents is a serious problem that faces them in the foster homes. Those inadequately trained staff can affect their interactions with adolescents in which it could influence their personality as well as their thoughts (Vorra et al., 2003; IJzendoorn et al., 2011). Most of the adolescents are deprived of opportunities to develop stable and continuous attachment relationships due to the limited amount and poor quality of contact with their caregivers (Gunnar et al., 2000; Palacios and Sánchez-Sandoval, 2005; Vorria et al., 2003; Zeanah et al., 2005).

Moreover, emotional abuse could occur due to lack of emotional relationships such as lack of conversation with adolescents, lack of expression of opinions, lack of time spent with

them, keeping them in a permanent state of insecurity, and punishing them for their behaviors that are considered normal due to their situation, unreasonable rules and requirements, adolescents ignorance, providing inappropriate clothes, lack of family visits, lack of recreational activities, denying adolescents of their favorite toys, and lack of providing the opportunity to make their own choices and decisions (Simsek et al., 2007; Rus et al., 2013).

Physical abuse administered by staff is also another problem that adolescents could face while living in institutions or foster homes. Some of the abuse examples are physical abuse either light or severe, physical isolation, forcing them to do hard and unsuitable tasks, lack of materials, and experiencing multiple punishments (Simsek et al., 2007; Giagazoglou et al., 2012). As consequences, the children in the foster homes may face many challenges that may affect their quality of life and lead to the development of the main psychological problems such as somatization, obsession-compulsive, internal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism.

Somatization refers to the condition where mental states and experiences are expressed as bodily symptoms. It includes attribution of normal bodily sensations to physical illness (possibly with catastrophic interpretations), worry about disease, and fear that any physical activity may damage the body, besides, behavioral features may include repeated bodily checking for abnormalities, repeated seeking of medical help and reassurance, and avoidance of physical activity (DSM-5, 2013). Moreover, it could affect so many organs in the body and may possibly present with a wide variety of clinical symptoms and signs related to differential diagnosis. Somatization symptoms could be associated with other symptoms such as anxiety and depression that can make it difficult for the identification process. As a result, children and adolescents with somatization symptoms might be shown through stressful life events and develop into psychiatric illness in the future. Accordingly, individuals might demonstrate different temperament and physiological response to social and cultural factors, therefore, these individuals had been neglected and were only given attention when physically ill (Mai, 2004).

Obsession compulsion is characterized by the presence of obsessions or compulsions. Obsessions are recurrent and persistent thoughts, urges, or images that are experienced as intrusive and unwanted, whereas compulsions are repetitive behaviors or mental acts that an individual feels driven to perform in response to an obsession or according to rules that

must be applied rigidly (DSM-5, 2013). It can substantially interfere with a routine of schoolwork, job, family, or social activities. Also, those behaviors can make concentrating on daily activities very challenging, and they usually tend to hide their behavior from friends and relatives, and so become antisocial (Gorrindo and Parekh, 2015). Some other obsessive-compulsive behaviors are also characterized by preoccupations and by repetitive behaviors or mental acts in response to the pre-occupations. Other obsessive-compulsive and related practices are characterized primarily by recurrent body-focused repetitive behaviors and repeated attempts to decrease or stop the behaviors (DSM-5, 2013).

Interpersonal sensitivity is another domain of psychological problems which is related to the ability of the individual to accurately assess others' abilities, states, and traits from nonverbal cues and it is related to the accurate judgments of friends' interpersonal sensitivity. It is considered as an important social skill to adapt social functioning. However, individuals with poor interpersonal sensitivity, they may experience poor self-judgment that leads to feelings of inferiority and attachment insecurity (Carney and Harrigan, 2003).

Further, depression is a common mental disorder characterized by discrete episodes of at least two weeks duration (although most episodes last considerably longer) involving clear-cut changes in affect, cognition, and neuro-vegetative functions and inter-episode remissions (DSM-5, 2013). It presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his/her everyday responsibilities (WHO, 2012). Depression can interfere with the individual's ability to function and can present a significant reduction in his/her QoL in which it can affect various domains of the individual's life. It can lead to lack of work, productivity, interpersonal problems, and it can influence longevity and well-being (Marcus et al., 2012; Berlim and Fleck, 2007).

Anxiety is also a condition which can have a severe impact on daily life, and it is an anticipation of future threat. It contains features of excessive fear and anxiety and related behavioral disturbances, an unpleasant emotional state which characterized by the feeling of fear, and associated with muscle tension and vigilance in preparation for future danger and cautious or avoidant behaviors (DSM-5, 2013). Those symptoms include a racing heart, rapid breathing, abdominal discomfort, sweating, excessive and undue worrying,

sleep disturbance, muscle tension, morbid thoughts and a fear of going mad. Further, anxiety can have a serious effect on the ability to cope with everyday life, and the individual may not be able to identify a particular cause for the anxiety disorder. Or indeed if the anxiety is associated with a place or situation, it is quite normal to experience anxiety or fear when faced with a difficult or dangerous situation. As well, it can lead to relationships break up and unemployment (WHO, 2006).

Also, phobic anxiety is described as abrupt surges of intense fear or intense discomfort characterized by excessive or unreasonable fear cued by the presence or anticipation of a specific object or situation that reach a peak within minutes, accompanied by physical and cognitive symptoms, and can affect the individual's ability to function normally at a certain place or in social settings (DSM-5, 2013). Phobic anxiety may take the form of a panic attack, crying, tantrums, or freezing especially in children. It can affect the individual's quality of life through avoiding all places, settings, experiences, and events that can lead to anxiety. It can cause impairments in tasks functioning, lead to social isolation and relationships problems (loneliness), depression, substance abuse due to the stress of living with severe phobias, and sometimes it leads to suicide (Barlow, 2002).

Further, hostility which is described as a collection of negative attitude and behavior, persistent or frequent angry feelings that can influence the individual's relationship with people. It includes anger or irritability in response to minor slights and insults; mean, nasty, or vengeful behavior (DSM-5, 2013).

Also, paranoid ideation is another problem in which cognitive processes consisting of continual suspicion and non-delusional beliefs of being persecuted, tormented, or treated in an unfair manner by other people. Individuals with paranoid ideation may fear that something bad will happen, think that other people or external causes are responsible, and they have beliefs that are exaggerated or unfounded. It may begin to have an impact on their behavior and day-to-day life. As they may find difficulties in trusting other people and maintain relationships, may show some physical symptoms of stress or anxiety, finding difficulties in concentrating or continuing with day-to-day tasks, sleeping problems, poor self-caring, loss of appetite, and isolating self to avoid others and situations (Martin and Penn, 2001; DSM-5, 2013).

Finally, psychoticism includes unusual thought processes and experiences, including depersonalization, derealization, and dissociation. Those symptoms are mixed with sleep

wake state experiences, bizarre behavior, strange appearance, strange speech (saying unusual or inappropriate things), and unpredictable thoughts. Also, it includes important beliefs and experiences; for example, the belief that one has unique abilities, such as mind reading, unusual experiences of reality, and thoughts about the individual's ability to move objects at a distance by mental power or other nonphysical means. In addition, it also can lead to poor adjustment, behavioral deficits, cognitive deficits and poor judgment, emotional and interpersonal deficits, and motivational deficits (DSM-5, 2013).

These psychological problems may negatively affect the quality of life of adolescents who lived in the foster homes and it can influence different aspects of their lives.

### **3.3. Quality of life**

Quality of life is the general well-being of the individuals and societies as well, and is defined as the individual's perceptions of their positions in life in the context of the culture and the value systems in which they live and in relation to their goals, expectations, standards, and concerns. The concept merged within its meaning the person's physical health, psychological state, level of independence, social relationships, personal beliefs that related to their environment (WHO, 1997).

Also, the concept of quality of life related to the general well-being of the individual and society, and it is related to health, happiness, rather than wealth. Conversely, various factors play a crucial role in the quality of life and are able to make changes to the individual's life such as personal preferences, financial security, job satisfaction, family life, general health and well-being, and safety. Quality of life considered a multidimensional model that includes subjective evaluations on the positive and negative aspects of life. This term includes health as an essential domain related to different activities of life such as jobs, housing, and schools. It related to other aspects of culture such as values and norms which considered a type of quality of life that add to the complexity of its measurements (CDC, 2011).

Quality of health is a critical part of health economics, medical decision-making, and the planning of health-care programs. It is a combined concept that includes the individual's perspective of emotional well-being, interpersonal relationships, material well-being, personal development, physical well-being, self-determination, social inclusion, and

human rights. This concept encourages treatment programs to plan for a higher standard of how typical life should be for all individuals, as well as, it is a valid and appropriate indicator of service need and intervention outcomes (Carbone et al., 2007).

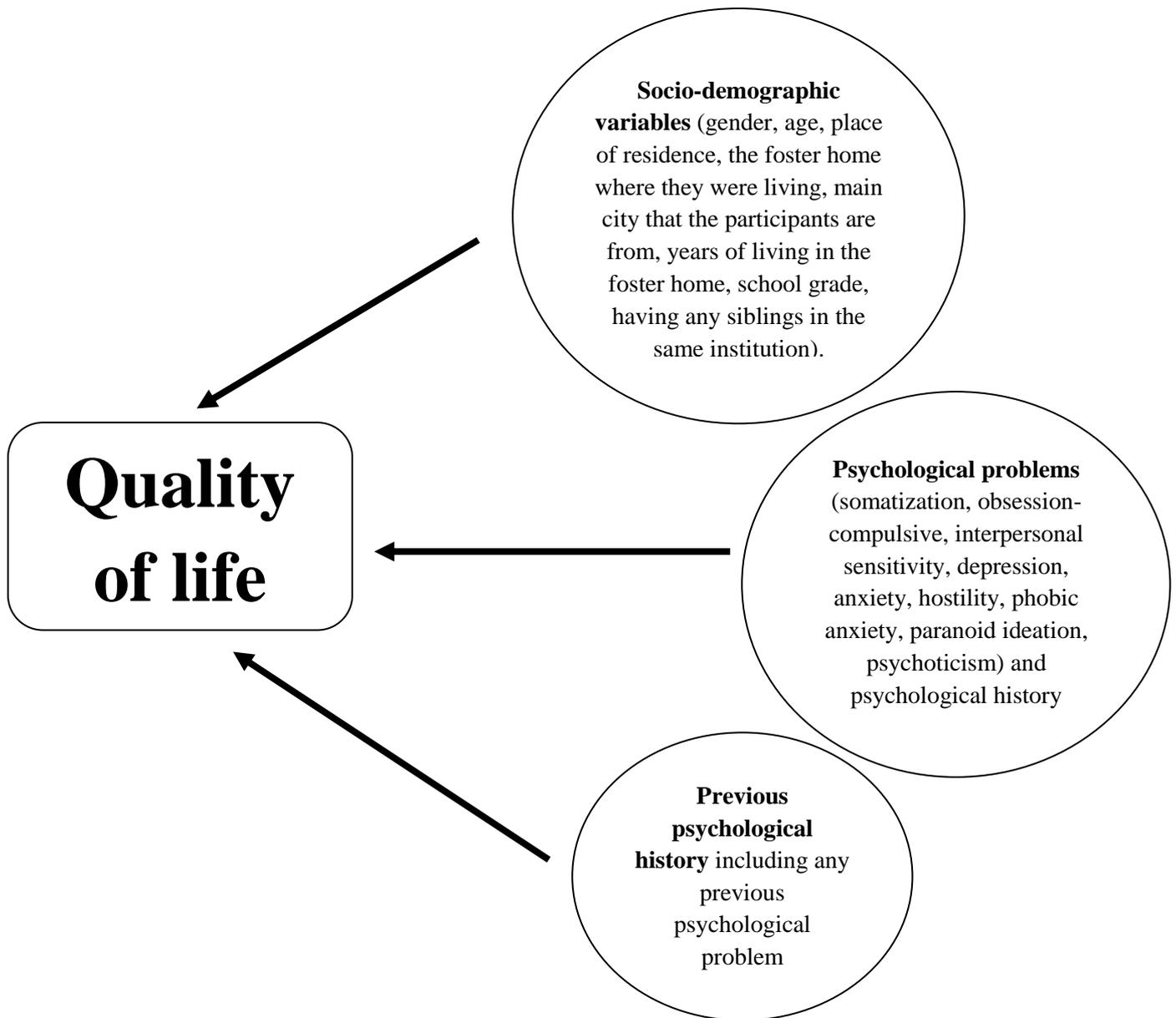
Before 20 years ago, the concept of the quality of life has been served to assess functional status, symptoms, disease processes, or treatment side-effects. As a result, the definition of the quality of life is still evolving to include a broad range of human experiences related to one's overall well-being, as well as, quality of life has become a vital and often required part of health outcomes appraisal. For example, people with chronic diseases, measurement of QoL provides a meaningful way to determine the impact of health care when cure is not possible, and is based on subjective functioning in comparison with personal expectations and is defined by subjective experiences, states, and perceptions (Burckhardt and Anderson, 2003).

The quality of life is also included international development, healthcare, policies, and employment. This definition reflects the view that quality of life refers to a subjective evaluation which is embedded in cultural, social, and environmental settings. The concept is not related to the individual's standard of living. It refers to an ethical principle through the use of the assessment of the quality of life that the individual potentially focuses on his/her own experience for making decisions about own termination of life. Consequently, it is expected to provide details about the effects of the disease or environment on quality of life. Thus, the term of the quality of life cannot be identical to the terms of life satisfaction, lifestyle, health status, mental state, and well-being (WHO, 1997).

### **3.4. The figure of the framework**

In figure (3.1), the major concepts of the current framework focus on quality of life as a dependent variable and other independent variables such as socio-demographic data (which includes gender, age, place of residence, the foster home where they were living, main city that the participants are from, years of living in the foster home, school grade) and psychological problems (including somatization, obsession-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism), and having previous psychological history. Each concept is discussed below in more details.

**Figure (3.1): Conceptual framework of the current study including quality of life and the independent variables.**



### **3.5. Dependent variable: Quality of life**

As mentioned in the previous chapter, WHO defined the quality of life as “the individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to relevant features of their environment” (WHO, 1997). Also, the Center of Disease Prevention and Control defined quality of life as “a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life” (CDC, 2011).

### **3.6. Independent variables**

In the current study, independent variables included socio-demographic data (gender, age, foster home’s name, place of residence, location, years of living in the foster home, school grade, having any siblings in the same foster home), and having previous psychological history and the psychological problems.

### **3.7. Summary**

- The chapter presented the conceptual framework which was developed based on the literature review.
- It had of two major concepts: the dependent variable including quality of life, and independent variables including socio-demographic variables (gender, age, foster home's name, location, main city that the participants are from, years of living in the foster home, school period, and any other siblings in the foster home), having previous psychological history, and psychological problems (somatization, obsession-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism, and psychological history).

The next chapter discussed the methodology of the current study.

## **CHAPTER FOUR**

### **METHODOLOGY**

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#### **4.1. Introduction**

In this chapter, study design, study population, study settings, study instruments, reliability and validity of the instruments, data collection process, statistical analysis, and ethical considerations will be presented.

#### **4.2. Study design**

In the current study, a case-control study was utilized. Study cases were those who lived in the foster homes and controls were those living with their families.

#### **4.3. Study population and sample size**

The target population of this study was adolescents aged between 13-18 years who lived in the foster homes (cases) and adolescents who resided with their biological parents in the community (control group) in Bethlehem and Hebron areas. This age group of adolescents was chosen because they are able to fill in the questionnaire independently due to their proper level of literacy, age-proper according to the chosen instruments, and their ability to define and express their feelings and reactions.

The total number of the adolescents who lived in the foster homes (cases) and who met the inclusion criteria of the current study and aged between 13-18 years old were 109 participants from both foster homes (45 adolescents from SOS Village in Bethlehem and 62 adolescents from the Islamic Charity Association in Hebron). However, two of the adolescents (7<sup>th</sup> grade in the SOS Village school) from the foster homes refused to fill in the questionnaires, thus, the total number of the participants from the foster homes was 107 adolescents.

Also, 122 participants who resided with their biological parents in the community (control group) (44 participants from the SOS Village/Bethlehem and 78 participants from the Islamic Charitable Society) were selected as a comparative group from both schools of the foster home and from the same classes in which they study with adolescents who lived in the foster homes.

In the current study, all adolescents who lived in the foster homes were included. Subsequently, the comparative group (control group) was selected from the same two foster homes and from the same classrooms of the adolescents who lived in the foster homes. They were students from 13-18 years old and they were selected randomly from the students' list of the social worker in each foster home. The students were selected randomly from each classroom (every fourth name in accordance to the students' size).

So, the total number of the participants in the current study was 229; who agreed to fill in the questionnaire; 107 adolescents who lived in both foster homes (cases) and 122 adolescents who resided with their biological parents in the community (controls); see table (4.1).

**Table (4.1): The number of the participants from the foster homes (cases) and adolescents who resided with their biological parents in the community (controls)**

<b>Foster home</b>	<b>Cases</b>	<b>Controls</b>	<b>Participants who refused</b>
<b>SOS Village (Bethlehem)</b>	45 adolescents	44 adolescents	2 cases
<b>Islamic Charity Society (Hebron)</b>	62 adolescents	78 adolescents	none
<b>Response rate</b>	<b>98.1%</b>	<b>100%</b>	

#### **4.4. Settings of the study**

Two foster homes located in Bethlehem and Hebron were selected in this study; SOS Village in Bethlehem and the other one is the Islamic Charity Association in Hebron for boys and girls. Those two foster homes were chosen because they are the only two places that provide foster services for the selected age group adolescents in Bethlehem and Hebron cities.

SOS Village in Bethlehem was established in 1969 after the World War II and was the first village in the Middle East. It was established to receive children and adolescents from Bethlehem and Gaza who lost their parents in the war. The idea of the institution was to provide family atmosphere for those children and adolescents, to provide the primary basic needs for them, and to share in the development of their communities. They are financially supported by the Palestinian Social Services and from other international donors, and are supervised by the Palestinian National Office (SOS, 2009).

The village has 14 houses for children and adolescents, and each house contains 6-9 children live together with one mother. The children and adolescents are divided in houses as family-like houses in order to give them the opportunity to shape their own futures and to belong to a family and grow with love, respect, and security (SOS Village, 2009).

Their direct work goes toward providing direct care, protection, shelter and food. In addition to the educational services through the kindergarten and the school – which are integrated between children from the same village and children from the local community- by academic professionals. As well as, providing health care programs including prevention, psychological support, and family strengthening programs (SOS Village, 2009).

Moreover, the village gives children and adolescents the opportunity to build lasting relationships within a family, to keep in contact with their biological parents, enable them to live according to their own culture and religion, help them to recognize and express their individuals' abilities and interests, and to ensure that they receive the education and skills training they need to be successful and contributing members of society (SOS Village, 2009). Currently, SOS village has four youth houses located outside the same village with ten youth residing in each house. At the age of 13, boys and girls are separated into youth houses where they remain till the age of 18, and there is one leader for each boys and girls youth houses (SOS Village, 2009).

The second place that was chosen to collect data was the Islamic Charity Association in Hebron for boys and girls. This charity was established in 1962 by some persons from the same area in order to be the first charity in Palestine that serves orphanages. Its own aim was to provide primary needs and care for those children and adolescents especially those related to their educational and social health. Also, it helps them to provide security through the available houses in the charity to save them. It provides financial services for

approximately 3100 girls and boys within both inside the charity (the three branches) and outside as well (Islamic Charity Association, 2015).

It has three branches which are; Bani-Naem branch that was established in 1990, Beit-Oula branch that established in 1998, and Al-Shuyoukh branch that was also established in 1998. However, the total children and adolescents that live for long time inside the charity are 150 for boys and 110 for girls (Islamic Charity Association, 2015). The charity provides different services for those children and adolescents, it includes; housing through different homes for boys and girls separately, educational programs at the charity's schools, financial programs for each child, and rehabilitation program for them and their families as well to enable them to function in life (Islamic Charity Association, 2015).

## **4.5. The inclusion and exclusion criteria**

### **4.5.1. Study cases inclusion and exclusion criteria:**

- **Inclusion criteria:**

1. Adolescents who lived in SOS Children Village in Bethlehem and in the Islamic Charity Association in Hebron.
2. Adolescents aged between 13-18 years old because they could fill in the questionnaire and suitable for the questionnaire's age group.

- **Exclusion criteria:**

1. Adolescents who were older than 18 years old and younger than 13 years old because these age groups were not included in the questionnaire's age group.
2. Adolescents who had mental disorders which might affect their cognition abilities to fill in the questionnaires such as severe depression or schizophrenia.

### **4.5.2. Study controls inclusion and exclusion criteria:**

- **Inclusion criteria:**

1. Adolescents who studied in the same schools where the cases studied; the SOS Village and the Islamic Charitable Society schools.

2. Adolescents aged between 13-18 years old; they were able to fill in the questionnaire.
  3. Adolescents who resided with their biological parents in the community.
- **Exclusion criteria:**
    1. Adolescents who were older than 18 years old and younger than 13 years old.
    2. Adolescents who had mental disorders which might affect their abilities to fill in the questionnaire such as severe depression and schizophrenia.

#### 4.6. Instruments of the current study

The collection tools that were used in this study were self-administered questionnaires including socio-demographic sheet, Brief Symptom Inventory-53, and Pediatric Quality of Life version 4.0 Inventory as seen in table (4.2).

**Table (4.2): Instruments of the current study and the numbers of their questions**

No.	Instruments	Number of questions in each instruments
1.	Socio-demographic self-administrated sheet	<ul style="list-style-type: none"> <li>• 9 questions for socio-demographic data.</li> <li>• One question for having previous psychological history.</li> </ul>
2.	Brief Symptom Inventory-53 (BSI-53)	<ul style="list-style-type: none"> <li>• 53 questions</li> </ul>
3.	Pediatric Quality of Life Inventory Version 4.0 (PedsQL-15)	<ul style="list-style-type: none"> <li>• 15 questions</li> </ul>

Each one of the study instrument is discussed in more details as the following:

1. **Socio-demographic sheet** was developed for the purpose of this study and it included variables such as age, gender, organizational type (name of the organization), living place, origin place of residence, years of living in the foster homes, educational level, having siblings in the same foster home, having a history of previous psychological problems.

These questions were designed to collect initial and essential data about each participant, and included the following:

1. Age: which was defined as the completed age in years of the enumerated person, which is the difference between the date of birth and the survey reference period. The exact age is the time elapsed between the day of birth and a given day, including parts of a year (PCBS, 2004). The participants in the current study aged between were 13 to 18 years old. Question number (1) assessed this as the following;

1) Age:

A. 13-15 years old

B. More than 15 – 18 year old

2. Gender: which was defined as the person's biological status and is typically categorized as male and female (American Psychology Association, 2011). Question number (2) assessed this as the following;

2) Gender:

A. Male

B. Female

3. Foster home's name where the participants lived in: the organization that the adolescent lives in. Question number (3) assessed this as the following;

3) The foster home where you lived in is:

A. The Islamic Charity Association in Hebron

B. SOS Village in Bethlehem

4. Living place: refers to the locality that the adolescent lived to differentiate between adolescents who lived in the foster homes and adolescents who lived with their families. Question number (4) assessed this as the following;

4) Where do you live:

A. Inside the foster home

## B. Outside the foster home

5. Place where you came from: the origin place that the participant came from where his/her biological parents lived according to the participant' knowledge. Question number (5) assessed this as the following;
  - 5) The origin place where do you come from:
    - A. Village
    - B. Camp
    - C. City
  
6. Years of living in the foster home: the period that the participant lived in the foster home since he/she left his/her biological parents. Question number (6) assessed this as the following;
  - 6) Years you spent in the foster home:
    - A. Less than one year.
    - B. Between 1 - 3 years.
    - C. More than 3 - 5 years.
    - D. More than 5 years.
  
7. Educational level: the class or the position that the participant is currently studying in (PCBS, 2012). Question number (8) assessed this as the following;
  - 7) Educational level:
    - A. Primary stage (seventh, eighth, and ninth grades)
    - B. Secondary stage (tenth, eleventh, and twelfth grades)
  
8. If the adolescent has siblings in the same foster home. Question number (9) assessed this as the following;
  - 8) Do you have any brothers and sisters in the same foster home?

A. Yes

B. No

#### 9. History of previous psychological problems

Psychological history which refers to the narrative or record of past events and circumstances that is or may be relevant to the client's current state of health (PCBS, 2012). Question number (10) assessed if the participants had a history of previous psychological problems; as the following;

9) Did you have any psychological problems in the past?

A. Yes

B. No

## 2. **Brief Symptom Inventory (BSI)**

BSI is a self-report instrument created in 1975 by Leonard R. Derogatis; it provides clinical data and overview about patients' overall progress during the course of treatment in various setting in order to facilitate decision-making. It is a shortened version of the Symptoms Checklist-90-R. Brief Symptom Inventory is a useful instrument for adolescents aged from 13 years and older. It is used also for three target populations; psychiatric outpatients, non-patient normal subjects, and psychiatric inpatients (Holi, 2003).

BSI is a reduced version from SCL-90-R that includes 53- item Brief Symptom Inventory designed by Derogatis (1993). It is a self-report questionnaire used to assess psychological problems and identify symptoms among individuals aged 13 year-old and older. It provides a wide range of information about current subjective experience of psychological wellbeing and distress settings, point-in-time psychological symptom status, and not a measure of personality. The instrument first designed for drug trials to assess the relative efficacy of psychotherapeutic agents. It was initially oriented toward symptomatic behavior of psychiatric outpatients. It can be also used for different purposes such as

measuring patients' outcomes while providing treatment programs, measuring patients' progress during and after treatment, measuring changes in symptoms, and it can be used as a method for symptom screening (Tambelli and Cerniglia, et. al, 2015).

In consequence, BSI includes the same nine dimensions as the SCL-90-R does, but with less items (53 items). SCL-90- R is based on nine primary dimensions (1) somatization, (2) obsessive compulsion, (3) interpersonal sensitivity, (4) depression, (5) anxiety, (6) hostility, (7) phobic anxiety, (8) paranoid ideation, (9) psychoticism. Each item has a five-point scale from 0 (none) to 4 (extreme) rated by the patient. Those nine items are scored on a five-point Likert scale. Also, it has three global indices used to determine severity and degree of psychological distress in accordance to the nine dimensions. Those indices are Global severity index (GSI), Positive Symptoms Distress Index (PSDI), and Positive Symptoms Total (PST) (Holi, 2003).

BSI uses the same three global indices; however, GSI is also used as the best index to measure patient's severity. The instrument ranks each item on five-point scale ranging between 0 (not at all a problem) and 4 (extremely considered a problem). It helps to assess patients for psychological problems, facilitate management decisions, evaluates patients' progress during and after treatment, and provides outcomes measurement (WHO, 1997).

BSI is a well-known and accepted instrument used to screen global psychological distress. The validity and reliability of the instrument have been tested for more than 400 research studies. The assessment can facilitate treatment decisions and identify patients before their problems develop into acute. It can be used by psychologists, medical professionals, researchers, psychiatrists, and educational professionals (WHO, 1997).

Also, Brief Symptom Inventory (BSI-53) was used in the current study to provide data about the psychological problems of each participant. BSI-53 is a self-report instrument that is used to assess psychological problems, measuring client's outcomes while providing treatment, measuring client's progress, measuring changes in symptoms, and it is used as a tool for symptom screening (WHO, 1997). These variables include the following:

- Somatization: it is a syndrome consisting of physical symptoms that cause substantial distress and psychosocial impairment, and are not explained by a known general medical disease. Somatization has also been referred to as medically

unexplained symptoms and functional somatic symptoms. It is an overarching term that encompasses many different illnesses and terms including “somatoform disorders,” (DSM-V, 2013; Barsky, 2016). Somatization was assessed by the following questions in the questionnaire:

Q.2. Faintness or dizziness

Q.7. Pains in heart or chest

Q.23. Nausea or upset stomach

Q.29. Trouble getting your breath

Q.30. Hot or cold spells

Q.33. Numbness or tingling in parts of your body

Q.37. Feeling weak in parts of your body

- Obsession-Compulsive: is characterized by unreasonable recurrent and persistent thoughts, impulses, behaviors, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress (DSM-V, 2013). Obsession-Compulsive was assessed by the following questions in the questionnaire:

Q.5. Trouble remembering things

Q.15. Feeling blocked in getting things done

Q.26. Having to check and double-check what to do

Q.27. Difficulty making decisions

Q.32. Your mind going blank

Q.36. Trouble concentrating

- Interpersonal sensitivity: is characterized by feelings of personal inadequacy and inferiority, particularly in comparison with others. This dimension includes self-deprecation, self-doubt, and marked discomfort during interpersonal interactions

(Carney and Harrigan, 2003). Interpersonal sensitivity was assessed by the following questions in the questionnaire:

Q.20. Your feelings being easily hurt

Q.21. Feelings that people are unfriendly or dislike you

Q.22. Feeling inferior to others

Q.42. Feeling very self-conscious with others

- Depression: is a common mental disorder characterized by sadness, loss of pleasure and interest in daily activities, low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. It can hinder the individual's ability to function socially, occupationally, and educationally as well as performing daily tasks. It can lead to change in appetite, change in sleep, change in activity, loss of energy, feelings of guilt, worthlessness or excessive, and loss of concentration (WHO, 2012; DSM-V, 2013). Depression was assessed by the following questions in the questionnaire:

Q.9. Thoughts of ending your life

Q.16. Feeling lonely

Q.17. Feeling blue

Q.18. Feeling no interest in things

Q.35. Feeling hopeless about the future

Q.50. Feelings of worthlessness

- Anxiety: is an emotion characterized by feelings of tension, nervousness, panic attacks, feelings of terror, feeling of apprehension, worry, and can lead to physical change such as increased blood pressure. Anxiety is natural response and a necessary warning adaptation in humans, however, it can become a pathologic disorder when it is excessive and uncontrollable, requires no specific external stimulus, and manifests with a wide range of physical and affective symptoms as

well as changes in behavior and cognition (WHO, 2006; DSM-V, 2013). Anxiety was assessed by the following questions in the questionnaire:

Q.1. Nervousness or shakiness inside

Q.12. Suddenly scared for no reason

Q.19. Feeling fearful

Q.38. Feeling tense or keyed up

Q.45. Spells of terror or panic

Q.49. Feeling so restless you couldn't sit still

- Hostility: persistent or frequent angry feelings; anger or irritability in response to minor slights and insults; mean, nasty, or vengeful behavior (DSM-V, 2013). Hostility was assessed by the following questions in the questionnaire:

Q.6. Feeling easily annoyed or irritated

Q.13. Temper outbursts that you could not control

Q.40. Having urges to beat, injure, or harm someone

Q.41. Having urges to break or smash things

Q.46. Getting into frequent arguments

- Phobic anxiety: is characterized by panic feelings or fear response to a specific person, object, place, or due to exposure to frequent conditions. Those experiences are irrational and disproportionate to the stimulus and lead to avoidance or escape behavior (Barlow, 2002). Phobic anxiety was assessed by the following questions in the questionnaire:

Q.8. Feeling afraid in open spaces or on the streets

Q.28. Feeling afraid to travel on buses, subways, or trains

Q.31. Having to avoid certain things, places, or activities because they frighten you

Q.43. Feeling uneasy in crowds, such as shopping or at a movie

Q.47. Feeling nervous when you are left alone

- Paranoid ideation: represents a mode of thinking characterized by the assumption of a paranoid behavior. It is characterized by projective thought, hostility, suspiciousness, grandiosity, centrality, fear of loss of autonomy, and conceptualization (Martin and Penn, 2001). Paranoid ideation was assessed by the following questions in the questionnaire:

Q.4. Feeling others are to blame for most of your troubles

Q.10. Feeling that most people cannot be trusted

Q.24. Feeling that you are watched or talked about by others

Q.48. Others not giving you proper credit for your achievements

Q.51. Feeling that people will take advantage of you if you let them

- Psychoticism: is a personality type characterized by unusual thought processes and experiences, unusual beliefs and experiences; for example, belief that one has unusual abilities, such as mind reading, unusual experiences of reality, and thoughts about the individual's ability to move objects at a distance by mental power or other nonphysical means (DSM-V, 2013). Psychoticism was assessed by the following questions in the questionnaire:

Q.3. The idea that someone else can control your thoughts

Q.14. Feeling lonely even when you are with people

Q.34. The idea that you should be punished for your sins

Q.44. Never feeling close to another person

Q.53. The idea that something is wrong with your mind

- Additional items: there are four items on the BSI that are not subsumed under any of the primary symptom dimensions. These symptoms actually "load" on several dimensions but are not univocal to any of them (DSM-V, 2013). The additional items were assessed by the following questions in the questionnaire:

Q.11. Poor appetite

Q.25. Trouble falling asleep

Q.39. thoughts of death or dying

Q.52. feelings of guilt

### **3. Pediatric Quality of Life Inventory Version 4.0 (PedsQL)**

PedsQL is a modular instrument and a self-report questionnaire developed to measure health-related quality of life in children and adolescents aged between 2-18 years. It includes 23 items with 5-point scale that assess the quality of life using four dimensions; physical functioning (eight items), emotional functioning (five items), social functioning (five items), and school functioning (five items) (Damjanovic and Lakic et al., 2011). Those items were developed through focus groups, cognitive interviews, pretesting, and field testing measurement development protocols. They are applicable for healthy school and the adolescents who resided with their biological parents in the community, as well as pediatric populations with acute and chronic health conditions. The instrument takes approximately five minutes to complete (Klatchoian et al., 2008).

The instrument has two versions which can be used for the same age group. The full form which includes 23 items that consists of; the physical function (hard to walk more than one block, hard to run, hard to do sport activity or exercise, hard to lift something heavy, hard to take a bath or shower, hard to do chores around the house, hurt or ache, and low energy), emotional function (afraid or scared, sad or blue, feel angry, trouble sleeping, and worry about what will happen), social function (trouble getting along with other kids, other kids do not want to be friends, cannot do things that other kids can, and hard to keep up when playing with other kids), and school function (hard to pay attention in class, forget things, trouble keeping up with schoolwork, miss school-not feeling well, and miss school to go to the doctor or hospital) (Klatchoian et al., 2008).

The other form is a reduced version of the previous one that has 15 items which was used in the current study. It consists of; physical function (hard to walk more than one block, hard to run, hard to do sports or exercises, hard to lift something heavy, hard to do chores around the house), emotional function (feeling afraid or scared, feeling sad or blue, feeling angry, and worry about what will happen), social function (trouble getting along with other peers, other kids do not wanting to be friends, teased), and school function (hard to concentrate, forget things, trouble keeping up with schoolwork) (Klatchoian et al., 2008).

The child assessment self-report included ages two to four for toddlers, five to seven for young children, eight to twelve for children, and thirteen to eighteen for adolescents. Those items are identical to assess the child health related quality of life. They ask the child how much of a problem each item has been during the past one month. They are assessed through a 5-point response scale in a Likert interval scale (0 = never a problem, 1 = almost never a problem, 2 = sometimes a problem, 3 = often a problem, and 4 = almost always a problem); and the higher scores denote the lower QoL. The participant responds to how much of a problem each item has been during the past one month. However, for missing data, scale scores are computed as the sum of the items divided by the number of items answered (Varni et al., 2001; Chen et al., 2007).

The Pediatric Quality of Life Inventory (ages 13-18) -which was used in the current study- includes four domains; physical functioning, emotional functioning, social functioning, and school functioning (WHO, 1997) as seen in table (4.3).

**Table (4.3): Major domains and facets incorporated within each domain of Pediatric Quality of Life Scale.**

<b>Domain</b>	<b>Facets incorporated within domains</b>
Physical functioning	<ul style="list-style-type: none"> <li>• It is hard for me to walk more than one block</li> <li>• It is hard for me to run</li> <li>• It is hard for me to do sport activity or exercise</li> <li>• It is hard for me to lift something heavy</li> <li>• It is hard for me to do chores around the house</li> </ul>
Emotional functioning	<ul style="list-style-type: none"> <li>• I feel afraid or scared</li> <li>• I feel sad or blue</li> <li>• I feel angry</li> <li>• I worry about what will happen to me.</li> </ul>
Social functioning	<ul style="list-style-type: none"> <li>• I have trouble getting along with other teens.</li> <li>• Other teens do not want to be my friend</li> <li>• Other teens tease me</li> </ul>
School functioning	<ul style="list-style-type: none"> <li>• It is hard to pay attention in class</li> <li>• I forget things</li> <li>• I have trouble keeping up with schoolwork</li> </ul>

Physical functioning is an essential part of an individual's overall health which means a good body health that includes everything from physical fitness to overall well-being.

Physical health depends on physical activity and fitness, proper and healthy nutrition, and adequate rest (WHO, 1997).

Emotional functioning is a cognitive process originates in the brain, and it consists of different feelings of anxiety, depression, and anger. These emotions can increase the efficiency of cognitive processes and can enhance their well-being as well. Emotional functioning is the expression of individual's emotions that have an involuntary effect on others, it is for motivating actions, and it can help people to overcome barriers in the environment (Brooks and Goldstein, 2002).

Social functioning is related to the individuals' relationships, their workplace relations with peers and colleagues, and their engagement and sense of belonging to the community. It is the integration of psychological and physical health that helps in promoting and understanding the particular cultural and social issues in different contexts. Also, social functioning can be defined as the ability to construct representations of the relations between oneself and others, and use those representations flexibly to guide social behavior (Martire and Franks, 2014).

Finally, school functioning related to the student ability to perform main functional activities that support and enable the student's participation in the academic school skills and the educational program as well. These educational activities refer to classroom and homework assignments including language arts, mathematics, and science. Also, it includes other functional skills related to the student's performance at classroom such as manipulating books and tools for writing, responding to questions about the curriculum materials, requesting information and assistance, moving about the classroom and school, addressing personal needs appropriately, and interacting with classmates during learning tasks. Moreover, it is related to the non-academic aspects of the school program (Shalhevet Attar-Schwartz, 2009).

The below table (3.1) showed the items of each domain of the quality of life that were included in the QoL assessment in the current study.

#### **4.7. Reliability and validity of the instrument**

Cronbach's Alpha coefficient is one of the most common means of estimating the internal consistency of items in a scale; to provide evidence that the scale in a question is one-

dimensional. It is most commonly used when the questionnaire has multiple Likert questions that form a scale to determine if the scale is reliable (Rubin and Babbie, 2008). It is indicated that when alpha coefficients level is about 90 and above, the internal consistency reliability is considered to be excellent, when alpha coefficient level is from 0.80 to 0.89, reliability is considered to be good, and when it reaches 0.7, it is acceptable (Rubin and Bobbie, 2008). In the current study, Cronbach Alpha was calculated by using SPSS to measure reliability and it was 0.938 for the Brief Symptom Inventory-53, and 0.86 for the Pediatric Quality of Life Inventory-15.

An instrument content validity is necessarily based on judgment. It is becoming increasingly common to use the panel of substantive experts to evaluate and document the content validity of the new instruments (Polit and Beck, 2004). To achieve the aim of this study, the questionnaires in the current study were translated into Arabic language by the researcher and a back translation done by an English translator. The content validity was examined by five experts and professionals from Al-Quds University; two of them were mental health and public health professionals from the Faculty of Public Health in the field, and the other three were professionals from the Psychology and Education departments who hold doctoral degree (PhD). No changes were required by them regarding the language or the content.

In the current study, the internal consistency reliability for the Total Scale Score ( $\alpha = 0.88$  child, 0.90 parent report), Physical Health Summary Score ( $\alpha = 0.80$  child, 0.88 parent), and Psychosocial Health Summary Score ( $\alpha = 0.83$  child, 0.86 parent) were acceptable for group comparisons. Validity was demonstrated using the known-groups method, correlations with indicators of morbidity and illness burden, and factor analysis (Varni et al., 2001).

Also, the internal consistency reliability for the nine dimensions of the BSI-53, ranging from .71 on Psychoticism to .85 on Depression. No alpha reliability is reported for the three global indices. Test-retest reliability for the nine symptom dimensions ranges from .68 (Somatization) to .91 (Phobic Anxiety), and for the three Global Indices from .87 (PSDI) to .90 (GSI). Additionally, correlations between the BSI and the Wiggins content scales and the Tryon cluster scores from the MMPI ranged from .30 to .72 with the most relevant score correlations averaging above .50 (Conoley & Kramer, 1989; Derogatis, Rickles, & Rock, 1976 in Derogatis, 1993). Factor analysis results confirmed the a priori

construction of the symptom dimensions. In addition, correlations between the BSI and SCL-R-90 were .92 to .99 (Derogatis, 1993).

In addition, pilot study was done in one school before study data collection to test the content of the instruments. Pilot studies are a crucial element of a good study design that refers to mini versions of full-scale studies as a preparation of the major study, it is a pre-testing of a particular research instrument, and it is conducted to identify potential practical problems following the research procedure. Conducting a pilot study before the major one, can provide different advantages that might give advance warning to the researcher about the main unsuccessful points of the study, where research protocols may not be followed, or where the instruments of the study are inappropriate to assess the main points that the study is conducted for (Van Teijlingen and Hundley, 2001).

The pilot study included six students from Latin Patriarchate School in Beit-Sahour/Bethlehem (one student from each grade from seventh till twelfth grade). Ethical approval was completed by the school's head manager and the participants as well before the pilot study had begun. They were chosen randomly through the students' list of the teacher, and they filled in the questionnaires independently and the researcher was in the same room as well to answer the questions. No changes in the content and the language were required by the participants.

#### **4.8. Data collection process**

After sending formal letters to the SOS Village in Bethlehem, Hermann Gmeiner School SOS Village in Bethlehem, and Islamic Charity Association in Hebron explaining the purpose of the study, permissions were granted on February 2015. The data collection process was completed on May 2015 in both areas.

The researcher was able to collect data from both groups (participants who lived in the foster homes and participants who resided with their biological parents in the community). All the participants from the foster homes were included, and the participants who resided with their biological parents in the community were chosen randomly by choosing every fourth name in accordance to the class size.

The researchers started the process in Hebron. She began with Islamic Charity School for females and males separately then moving to the SOS Village School in Bethlehem.

Verbal description about the purpose of the study, the items of the questionnaire, the inclusion and exclusion criteria of the study, and ethical considerations were explained for them as well as they were given some instructions about the questionnaire. All participants were asked for a verbal permission to participate in the study before starting the process of filling in questionnaires. The researcher and the school's social worker were in the same room while the participants were filling in the questionnaires.

The total number of questionnaires that were filled in by the presence of the researchers were 229 questionnaires (107 participants from both foster homes, and 122 participants who resided with their biological parents in the community). The data collection process took two months from the middle of March 2015 to the beginning of May 2015.

#### **4.9. Statistical analysis**

The data was analyzed by using the statistical package for Social Sciences (SPSS) version 18.0. The data were checked for entry errors (data clearance). The relationship between socio-demographic data, Brief-Symptom Inventory-53 (BSI-53), and Pediatric Quality of Life Scale 4.0 (PedsQoL-15) were analyzed by using the parametric test such as frequency, T-test, ANOVA, regression analysis, multivariate analysis, and Pearson Correlation test.

#### **4.10. Ethical considerations**

Before starting the survey, the study proposal was submitted to the Public Faculty at Al-Quds University and approval to conduct this study according to the thesis preparation guide of the Faculty of Graduate Studies was obtained.

An official ethical approval letter from Al-Quds University was sent to the two foster homes in Bethlehem and Hebron cities where the study was conducted to allow the researcher to carry out the study and to facilitate the process of data collection. This letter presented information about the proposed study and its purpose.

A formal approval was sent back from the managers of both foster homes in order to show their acceptance of filling in the questionnaires. The foster homes' managers were the only responsible persons for the adolescents who lived there.

The participants were provided with an information sheet about a brief introduction about the study, the aim of the study, the objectives, and procedures. This sheet was the first page in the questionnaire so they can read the instructions well before filling in the

questionnaires. And they were also informed that they had the right to refuse to participate in the study or to discontinue filling in the questionnaires, in addition to the verbal consent that was obtained.

The researcher guaranteed the privacy, respect, and confidentiality of all participants by assuring the information wasn't available for anyone who is not involved in the study and it would be kept strictly confidential. In addition, data was protected appropriately and stored on the computer by a password and nobody was allowed to access it except the researcher and the supervisor. No names or codes or any other mechanisms were used to trace responses back to an individual participant.

#### **4.11. Summary**

- A case-control design was utilized in this study because it is cheap, quick, and ethically safe.
- The data collection tools that were used in this study were: socio-demographic sheet, Brief Symptom Inventory-53 (BSI-53), and Pediatric Quality of Life Inventory version 4.0 (PedsQL 4.0).
- Validity of the questionnaires was examined by five experts in Al-Quds University. Reliability of the instruments was tested by using Cronbach's Alpha coefficient and the results were found to be 0.938 for the Brief Symptom Inventory-53, and 0.86 for the Pediatric Quality of Life Inventory-15.
- The total participants of the study were 229 of them agreed to fill in the questionnaire (107 adolescents who lived in both foster homes and 122 adolescents who lived with their biological parents in the community).
- The data was analyzed using SPSS statistical package testing. This was done according to international and local standards of research taking into consideration the ethical and scientific rules and obligations.
- Different ethical issues including consent forms and confidentiality were discussed.

The next chapter discusses the results of the current study.

## CHAPTER FIVE

### RESULTS

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#### 5.1 Introduction

The aim of the study was to assess the quality of life and psychological problems among adolescents who lived in the foster homes compared to the adolescents who resided with their biological parents in the community in Bethlehem and Hebron cities.

As mentioned in previous chapter, a case-control study was utilized. The total number of study sample was 229 students from the SOS Village in Bethlehem and Islamic Charitable Society in Hebron. The response rate was 98.1% for the adolescents who lived in the foster homes (two participants from the foster homes who met the inclusion criteria refused to fill in the questionnaire) and 100% for the adolescents who resided with their biological parents in the community. Data was collected by: Brief Symptom Inventory-53 and Pediatric Quality of Life Scale. This chapter presented the findings of the current study as the following:

- Section one: The characteristics of the participants.
- Section two: The results of the Pediatric Quality of Life Scale and its relationships with other variables.
- Section three: The results of the Brief Symptom Inventory-53 and its relationship with other variables.
- Section four: Multivariate analysis.

#### 5.2 Section one: the characteristics of the participants

The results showed that the majority were females 45.8% (n=49) in the case group and males 61.5% (n=75) in the control group as shown in table (5.1)

**Table (5.1): The distribution of the participants from the foster homes and the adolescents who resided with their biological parents in the community by gender**

		Living place		P-value
		Foster homes (cases) n (%)	Community (controls) n (%)	
<b>Gender</b>	Male	49 (45.8)	75 (61.5)	0.48
	Female	58 (54.2)	47 (38.5)	
<b>Total</b>		107 (100)	122 (100)	

The baseline data analysis showed that the majority of both groups were aged between 13-18 years old (76.6% (n=82) of the case group and 77.04% (n=94) of the control group) as shown in table (5.2).

**Table (5.2): The distribution of the participants who lived in the foster homes and the adolescents who resided with their biological parents in the community by age**

		Living place		P-value
		Foster homes (cases) n(%)	Community (controls) n(%)	
<b>Age</b>	Between 13-15 years old	82 (76.6)	94 (77.04)	0.42
	More than 15, less than 18 years old	25 (23.4)	28 (22.96)	
<b>Total</b>		107 (100)	122 (100)	

In addition, the table (5.3) showed that the majority of both groups were from the Islamic Charitable Society in Hebron; 57.9% (n=62) were from the case group and 63.9% (n=78) were from the control group as shown in table (5.3).

**Table (5.3): The distribution of the participants by their living institutions**

		Living place		P-value
		Foster homes (cases) n(%)	Community (controls) n(%)	
<b>Foster home</b>	Bethlehem SOS	45 (42.1)	44 (36.1)	0.47
	Hebron ICS	62 (57.9)	78 (63.9)	
<b>Total</b>		107 (100)	122 (100)	

With regard to the origin place of living, the majority of both groups was from the city 58.9% (n=63) of the case group and 84.4% (n=103) of the control group as shown in table (5.4).

**Table (5.4): The distribution of the participants by place of residence**

		Living place		P-value
		Foster homes (cases) n(%)	Community (controls) n(%)	
<b>Origin place of residence</b>	Village	34 (31.7)	14 (11.5)	0.02
	Camp	10 (9.3)	5 (4.1)	
	City	63 (58.9)	103 (84.4)	
<b>Total</b>		107 (100)	122 (100)	

For the school grade, table (5.5) showed that the majority of both groups was from the primary level; 78.5% (n=84) of the case group compared to 75.4% (n=92) of the control group, with a significant P-value of (0.02) as shown in table (5.5).

**Table (5.5): The distribution of the participants by school level**

		Living place		P-value
		Foster homes (cases) n(%)	Community (controls) n(%)	
<b>Educational levels</b>	Primary	84 (78.5)	92 (75.4)	0.1
	Secondary	23 (21.5)	30 (24.6)	
<b>Total</b>		107 (100)	122 (100)	

Also, the results revealed that 57% (n=61) of the majority of the case group spent more than five years in the foster home with a significant p-value of (0.00) as shown in table (5.6).

**Table (5.6): The distribution of the participants from the foster homes by the years of living in the foster home**

<b>The distribution of the participants from the foster homes (cases) by the years of living in the foster home</b>		<b>P-value</b>
	<b>n (%)</b>	
less than 1 year	<b>12 (11.2)</b>	<b>0.00</b>
1-3 years	<b>19 (17.8)</b>	
more than 3 to 5 years	<b>15 (14)</b>	
more than 5 years	<b>61 (57)</b>	
<b>Total</b>	<b>107 (100)</b>	

Moreover, 75.7% (n=81) of the case group was the majority who answered that they had sibling in the same foster home as shown in table (5.7).

**Table (5.7): The distribution of the participants who had siblings in the same foster home**

<b>Siblings in the same foster home (cases)</b>	<b>n (%)</b>	<b>P-value</b>
Yes	<b>81 (75.7)</b>	0.21
No	<b>26 (24.3)</b>	
<b>Total</b>	<b>107 (100)</b>	

The participants were asked if they had a history of previous psychological problems, and the majority of both groups answered “No”; 71% (n=76) of the case group and 61.5% (n=96) of the control group as shown in table (5.8).

**Table (5.8): The distribution of the participants by the presence of psychological problems**

		<b>Foster homes (cases) n (%)</b>	<b>Community (controls) n (%)</b>	<b>P-value</b>
<b>Previous psychological history</b>	Yes	30 (28)	21 (17.2)	<b>0.1</b>
	No	76 (71)	75 (61.5)	
<b>Total</b>		106 (99)	96 (78.7)	
<b>Missing value</b>		n=1	n=26	
		1%	21.3%	

### **5.3. Section two: The results of Pediatric Quality of Life Scale and its relationship with other variables**

This section discussed the quality of life, the major domains of quality of life findings and its relations with other independent variables as the following;

Part one: Quality of life related findings.

Part two: The relationship between quality of life and other independent variables.

#### **5.3.1. Part one: Quality of life related findings**

Fifteen questions were used to assess quality of life of adolescents aged between 13-18 years old who lived in the foster homes and the adolescents who resided with their biological parents in the community in Bethlehem and Hebron cities. Adolescents' quality of life was assessed within four main domains which included physical and health, emotional and feelings, social and communication, and school domains; and frequencies and percentages were used to achieve this purpose.

Table (5.9) showed in general that most of the participants' answers were "never", "almost never", and "sometimes" for most of the questions, and less than one third of the participants answered "often" and "almost always" for these questions. In addition, the questionnaire was checked in depth to assess the number of QOL questions that gained 60% and more of the participants' answers "never" "almost never" and "sometimes" had a problem for the participants from the foster homes, and the results revealed thirteen questions out of fifteen questions. For the physical domain, five out of five questions; q1 (it hard for me to walk more than one block), q2 (it is hard for me to run), q3 (it is hard for me to do sport activity or exercise), q4 (it is hard for me to lift something heavy), and q5 (it is hard for me to do chores around the house). For the emotional domain, three out of four questions; q1 (I feel afraid or scared), q2 (I feel sad or blue), and q4 (I worry about what will happen to me). For the social domain, three out of three questions; q1 (I have trouble getting along with others), q2 (other teens do not want to be my friend), q3 (other teens tease me). For the school domain, two out of three questions q2 (I forgot things) and q3 (I have trouble keeping up with schoolwork) as seen in table (5.9).

On the other hand, the two questions gained less than 60% of the participants' answers from the foster homes (never, almost never, and sometimes), were q3 (I feel angry) for the emotional domain, and q1 (it is hard to pay attention in class) for the school domain as seen in table (5.9). For the participants who resided with their biological parents in the community, the results showed that all the fifteen questions for the four domains of QOL had more than 60% of participants' responses as shown in table (5.9).

**Table (5.9): The participants' answers to the questions related to their quality of life (Pediatric Quality of Life Inventory-15)**

Domain	Question	Living place	Never	Almost never	Sometimes	Often	Almost always	P-value
			n(%)	n(%)	n(%)	n(%)	n(%)	
Physical domain	1. It is hard for me to walk more than one block	Foster homes (cases)	72 (69.2)	18 (17.3)	7 (6.7)	3 (2.9)	4 (3.8)	0.38
		Community (controls)	86 (70.5)	17 (13.9)	12 (9.8)	4 (3.3)	3 (2.5)	
	2. It is hard for me to run	Foster homes (cases)	62 (59)	26 (24.8)	5 (4.8)	4 (3.8)	8 (7.6)	
		Community (controls)	78 (64.5)	18 (14.9)	16 (13.2)	6 (5)	3 (2.5)	
	3. It is hard for me to do sport activity or exercise	Foster homes (cases)	63 (59.4)	21 (19.8)	11 (10.4)	6 (5.7)	5 (4.7)	
		Community (controls)	77 (63.6)	25 (20.7)	12 (9.9)	1 (0.8)	6 (5)	
	4. It is hard for me to lift something heavy	Foster homes (cases)	40 (37.7)	26 (24.5)	25 (23.6)	4 (3.8)	11 (10.4)	
		Community (controls)	47 (39.2)	35 (29.2)	29 (24.2)	6 (5)	3 (2.5)	
	5. It is hard for me to do chores around the house	Foster homes (cases)	54 (50.5)	17 (15.9)	14 (13.1)	6 (5.6)	16 (15)	
		Community (controls)	55 (45.8)	24 (20)	18 (15)	13 (10.8)	10 (8.3)	
Emotional domain	1. I feel afraid or scared	Foster homes (cases)	61 (57.5)	21 (19.8)	10 (9.4)	9 (8.5)	5 (4.7)	0.86
		Community (controls)	60 (50)	30 (25)	15 (12.5)	10 (8.3)	5 (4.2)	
	2. I feel sad or blue	Foster homes (cases)	32 (30.8)	12 (11.5)	29 (27.9)	14 (13.5)	17 (16.3)	
		Community (controls)	26 (21.5)	32 (26.4)	29 (24)	22 (18.2)	12 (9.9)	
	3. I feel angry	Foster homes (cases)	21 (19.6)	16 (15)	26 (24.3)	24 (22.4)	20 (18.7)	
		Community (controls)	21 (17.4)	23 (19)	37 (30.6)	20 (16.5)	20 (16.5)	
	4. I worry about what will happen to me	Foster homes (cases)	25 (23.6)	14 (13.2)	26 (24.5)	26 (24.5)	15 (14.2)	
		Community (controls)	29 (24)	28 (23.1)	25 (20.7)	18 (14.9)	21 (17.4)	
Social domain	1. I have trouble getting along with other teens	Foster homes (cases)	62 (58.5)	9 (8.5)	18 (17)	8 (7.5)	9 (8.5)	0.77
		Community (controls)	60 (49.6)	20 (16.5)	19 (15.7)	15 (12.4)	7 (5.8)	
	2. Other teens do not want to be my friend	Foster homes (cases)	61 (57.5)	13 (12.3)	17 (16)	10 (9.4)	5 (4.7)	
		Community (controls)	66 (54.5)	26 (21.5)	14 (11.6)	9 (7.4)	6 (5)	
	3. Other teens	Foster homes	58 (54.2)	19 (17.8)	15 (14)	8 (7.5)	7 (6.5)	

	tease me	(cases)						
		Community (controls)	57 (47.1)	30 (24.8)	19 (15.7)	9 (7.4)	6 (5)	
School domain	1. It is hard to pay attention in class	Foster homes (cases)	18 (16.8)	22 (20.6)	23 (21.5)	15 (14)	29 (27.1)	0.18
		Community (controls)	42 (34.7)	23 (19)	29 (24)	12 (9.9)	15 (12.4)	
	2. I forgot things	Foster homes (cases)	18 (17)	28 (26.4)	28 (26.4)	19 (17.9)	13 (12.3)	
		Community (controls)	23 (19)	20 (16.5)	38 (31.4)	25 (20.7)	15 (12.4)	
	3. I have trouble keeping up with schoolwork	Foster homes (cases)	30 (28.3)	21 (19.8)	23 (21.7)	12 (11.3)	20 (18.9)	
		Community (controls)	32 (26.4)	30 (24.8)	24 (19.8)	17 (14)	18 (14.9)	

### 5.3.1.1. Major domains of quality of life findings

As mentioned previously, quality of life has four domains; physical domain, emotional domain, social domain, and school domain which were further examined in the current study. The participants were asked about the extent of the problem related to these four functional domains in general, so T-test, frequency and percentage were used to assess if the differences between these two groups were significant or not (see table 5.10).

The table (5.10) below showed the mean and the P-value for each domain of the quality of life for the participants from the foster homes and the adolescents who resided with their biological parents in the community. The results revealed that there were some differences between the mean values among both groups that were not significant. For example, the highest mean value for both groups was for the school domain (the mean for the participants from the foster homes was 2.88, and the mean for the participants who resided with their biological parents in the community was 2.68), however, the result was not significant (p-value of 0.18) as seen in table (5.10).

Additionally, the highest means for the physical domain for the participants from the foster homes were for q4 (it is hard for me to lift something heavy) and q5 (it is hard for me to do chores around the house). For the participants who resided with their biological parents in the community, the highest mean was for q5 (it is hard for me to do chores around the house) with a mean value of (2.2). The total mean for the physical domain for the participants from the foster homes was 1.88 and for the participants who resided with their

biological parents in the community was 1.78 with p-value of 0.38, so the result was not significant as shown in table (5.10).

For the emotional domain, the highest mean for the participants from the foster homes were q3 (I feel angry) and q4 (I worry about what will happen to me). For the participants who resided with their biological parents in the community, the highest mean was for q3 (I feel angry). Further, the total mean score for the participants from the foster homes was 2.61 and for the participants who resided with their biological parents in the community was 2.58 with p-value of 0.86 which was not significant as seen in table (5.10).

For the social domain, the highest mean value for both groups was for q1 (I have trouble getting along with other teens). In addition, the total mean for participants from the foster homes was 1.94 and the total mean score for the participants who resided with their biological parents in the community was 1.98 with p-value of 0.77, and the result was not significant as seen in table (5.10).

For the school domain, the highest mean value for the participants from the foster homes was for q1 (it is hard to pay attention in class), and for the participants who resided with their biological parents in the community was q2 (I forget things). Also, the total mean score for the participants from the foster homes was 2.88 and for the participants who resided with their biological parents in the community was 2.68 with p-value of 0.18 which was not significant as seen in table (5.10).

**Table (5.10): The percentage, mean, and standard deviation for each question of the four domains of quality of life and their related questions**

Quality of Life	Foster homes (cases)		Community (controls)		P-value
	M (SD)	Total mean	M (SD)	Total mean	
<b>Physical domain</b>					
1.It is hard for me to walk more than one block	1.5 (1.0)	1.88	1.5 (1.0)	1.78	0.38
2.It is hard for me to run	1.8 (1.2)		1.7 (1.0)		
3.It is hard for me to do sport activity or exercise	1.8 (1.1)		1.6 (1.0)		
4.It is hard for me to lift something heavy	2.2 (1.3)		2.0 (1.0)		
5.It is hard for me to do chores around the house	2.2 (1.5)		2.2 (1.3)		
<b>Emotional domain</b>					
1.I feel afraid or scared	1.8 (1.2)	2.61	1.9 (1.2)	2.58	0.86
2.I feel sad or blue	2.7 (1.4)		2.7 (1.3)		
3.I feel angry	3.1 (1.4)		3.0 (1.3)		
4.I worry about what will happen to me	2.9 (1.4)		2.8 (1.4)		
<b>Social domain</b>					
1. I have trouble getting along with other teens.	2.0 (1.4)	1.94	2.1 (1.3)	1.98	0.77
2.Other teens do not want to be my friend	1.9 (1.2)		1.9 (1.2)		
3.Other teens tease me	1.9 (1.3)		2.0 (1.2)		
<b>School domain</b>					
1.It is hard to pay attention in class	3.1 (1.5)	2.88	2.5 (1.4)	2.68	0.18
2.I forget things	2.8 (1.3)		2.9 (1.3)		
3.I have trouble keeping up with schoolwork	2.7 (1.5)		2.7 (1.4)		
<b>Overall QOL</b>					<b>0.40</b>

**\*Significant at 0.05 level**

### 5.3.1.2. Scoring the PedsQL

Pediatric Quality of life questionnaire (PedsQL) was assessed using a specific rating scale; where the items were transformed to a 0-100 scale as follows: 0=100, 1=75, 2=50, 3=25, and 4=0. And this rating scale was used to check the difference between the participants from the foster homes and the participants who resided with their biological parents in the community. The mean score was checked for both groups using the sum of the items over the number of the items answered. The higher QoL mean value showed better health-related quality of life. The table showed that the highest mean score for both groups was for the physical domain (the mean score for the participants from the foster homes was 76.4, and the mean score for the participants who resided with their biological parents in the community was 79.2), then the social domain (the mean score for the participants from the foster homes was 75.7, and the mean score for the participants who resided with their biological parents in the community was 75.5), then the emotional domain (the mean score

for the participants from the foster homes was 58.4, and the mean score for the participants who resided with their biological parents in the community was 60.1), and finally the school domain (the mean score for the participants from the foster homes was 52.2, and the mean score for the participants who resided with their biological parents in the community was 58) as shown in table (5.11).

Moreover, the mean of the psychosocial health for the participants from the foster homes was 62.14 compared to 73.59 for the participants who resided with their biological parents in the community as seen in table (5.11).

**Table (5.11): Scoring the PedsQL-15 for the participants from the foster homes (cases) compared to the participants who resided with their biological parents in the community (controls).**

Living place		N	Minimum	Maximum	Mean	Std. Deviation
<b>Cases</b>	<b>Physical domain</b>	107	.00	100.00	76.4019	23.06466
	<b>Emotional domain</b>	107	.00	100.00	58.4112	25.54106
	<b>Social domain</b>	107	8.33	100.00	75.7788	26.71116
	<b>School domain</b>	107	.00	100.00	52.2586	27.14996
	<b>Valid N</b>	107				
<b>Controls</b>	<b>Psychosocial</b>				<b>62.1495</b>	
	<b>Physical domain</b>	122	20.00	100.00	79.2213	18.98260
	<b>Emotional domain</b>	121	6.25	100.00	60.1756	24.40879
	<b>Social domain</b>	121	.00	100.00	75.5510	25.47547
	<b>School domain</b>	121	.00	100.00	58.0579	27.94948
	<b>Valid N</b>	121				
	<b>Psychosocial</b>				<b>73.5948</b>	

Also, the overall QoL of the participants was assessed using the sum of all the items over the number of the items answered on all the scales. The results showed that the mean score for the participants from the foster homes was 65.7 compared to 67.8 of the participants who resided with their biological parents in the community as seen in table (5.12).

**Table (5.12): Total scores for the PedsQL in general for the participants from the foster homes (cases) compared to the participants who resided with their biological parents in the community (controls).**

<b>Living place</b>		<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Cases</b>	<b>Total</b>	107	13.13	100.00	65.7126	19.78075
	<b>Valid N</b>	107				
<b>Controls</b>	<b>Total</b>	122	5.00	100.00	67.8543	18.85373
	<b>Valid N</b>	122				

**5.3.2. Part two: The relationship between the four domains of quality of life and other independent variables.**

The relationships between the four domains of the quality of life and the independent variables such as socio-demographic data (gender, foster home’s type, age, having any siblings in the foster home, educational level, years of living in the foster home, and place of residence) and having a history of previous psychological problems among the participants from the foster homes and the adolescents resided with their biological parents in the community were assessed by using T-test and One Way ANOVA test. The statistical significance was defined as a P-value of (0.05) as shown in table (5.13) and table (5.14).

For the relationship between the QOL and gender for the participants from the foster homes, T-test revealed a statistically significant relationship between gender and school domain at P-value (0.037). For example, the females had a higher QoL mean (57.9) than the males (46.9) as shown in table (5.13). Also, it revealed no statistically significant relationship between gender and physical domain (p-value of 0.6), emotional domain (p-value of 0.24), and social domain (p-value of 0.10). However, for the participants who resided with their biological parents in the community, the results showed a statistically significant relationship between gender and the emotional domain at P-value (0.016), and the males had a higher QoL mean (64.4) than the females (53.6). Also, there was no statistically significant relationship between gender and the physical domain (p-value of 0.34), the social domain (p-value of 0.89), and the school domain (p-value of 0.71) as shown in table (5.14).

Further, for the participants from the foster homes, T-test showed a statistically significant relationship between the organizational type and the physical domain at P-value (0.02), the social domain at P-value (0.004) and the school domain at P-value (0.018). For example, the SOS Village had a higher QoL mean in those domains than the Islamic Charitable Society (SOS=83.3, ICS=73.2; SOS=84.4, ICS=69.7, and SOS=60.1, ICS=47.5; respectively for the adolescents from the foster homes). Also, it revealed no statistically significant relationship with the emotional domain (p-value of 0.54). For the participants who resided with their biological parents in the community, the results showed statistically significant relationships between the organizational type and the physical domain at P-value (0.005) and with the school domain at p-value of (0.005); where the SOS Village had a higher QoL mean in both domains than the ICS (SOS=86.3, ICS=76.6; SOS=67.6, ICS=52.7; respectively) as seen in table (5.14).

In addition, for the participants from the foster homes, T-test revealed a significant relationship between age and the social domain at P-value (0.016) as the participants who aged between 15 years old to less than 18 years had a higher QoL mean (87.7) than the participants who aged between 13 years old to less than 15 (mean=72.5). Also, there was no statistically significant relationship between age and the physical domain (p-value of 0.121), emotional domain (p-value of 0.83), and the school domain (p-value of 0.39) as shown in table (5.13). For the participants who resided with their biological parents in the community, there was a statistically significant relationship between age and the emotional domain at P-value (0.05) where the participants who aged between 13 years old to less than 15 had a higher QoL mean (61.6) than the participants who aged between 15 years old to less than 18 (mean=55.5) as shown in table (5.14).

Moreover, T-test revealed a significant relationship between the educational level and the social domain at P-value (0.023) for the participants from the foster homes as the adolescents in the secondary level had a higher QoL mean (86.9) than the primary level (mean=72.9). However, there were no statistically significant relationships between the educational level and the physical domain (p-value of 0.07), emotional domain (p-value of 0.93), and the school domain (p-value of 0.19) as shown in table (5.13). For the participants who resided with their biological parents in the community, there was a statistically significant relationship between the educational level and the emotional domain where the adolescents in the primary level had a higher QoL mean (60.8) than the

adolescents in the secondary level (mean=58.3). Also, there were no statistically significant relationships between the educational level and the physical domain (p-value of 0.53), social domain (p-value of 0.63), and the school domain (p-value of 0.66) as seen in table (5.14).

Furthermore, for the participants from the foster homes, T-test revealed a statistically significant relationship between having siblings in the same foster home and the emotional domain at P-value (0.008); where the participants who hadn't siblings in the same foster home had a higher QoL mean (mean=69.9) than the participants who had siblings in the same foster home (mean=54.9). However, there were no statistically significant relationships between having siblings in the same foster home and the physical domain (p-value of 0.83), social domain (p-value of 0.39), and the school domain (p-value of 0.49) as shown in table (5.13).

Finally, for the relationship between QoL and the place of residence, years of living in the foster home, and having previous psychological history, the ANOVA and T-test revealed no statistically significant relationships between them and the four domains of the QoL for the participants from the foster homes as seen in table (5.13). However, for the participants who resided with their biological parents in the community, table (5.14) showed that there was a statistically significant relationship between having previous psychological history and physical (p-value=0.02), emotional (p-value=0.019) and social domains (0.01); where the participants who answered "No" had a higher QoL means than the participants who answered "Yes" in the three mentioned domains.

**Table (5.13): The relationship between the four domains of quality of life and other independent variables among the participants from the foster homes (cases)**

Living place	Independent variables	Categories	Physical domain		Emotional domain		Social domain		School domain	
			M (SD)	Sig.	M (SD)	Sig.	M (SD)	Sig.	M (SD)	Sig.
Participants from the foster homes (cases)	Gender	Male	72.9 (0.95)	0.60	61.7 (1)	0.24	71.4 (1.10)	0.10	46.9 (0.99)	<b>0.037</b>
		Female	81.3 (0.86)		55.9 (0.99)		79.7 (0.95)		57.9 (1.17)	
	Organizational type	SOS Village	83.3 (0.59)	<b>0.02</b>	60.3 (0.90)	0.54	84.4 (0.85)	<b>0.004</b>	60.1 (1.01)	<b>0.018</b>
		Islamic Charitable Society	73.2 (1.06)		57.3 (1.06)		69.7 (1.11)		47.5 (1.15)	
	Age	From 13 to less than 15 years	75.6	0.121	58.3	0.83	72.5	<b>0.016</b>	51.6	0.39
		From 15 to less than 18 years	83.6		59.5		87.7		57	
	Siblings in the foster home	Yes	77.2	0.83	54.9	<b>0.008</b>	74.6	0.39	53.9	0.49
		No	78.3		69.9		79.8		49.6	
	Psychological history	Yes	78.8 (0.83)	0.72	49.6 (0.91)	0.19	73.1 (0.96)	0.45	56.9 (1)	0.33
		No	77.1 (0.95)		62.4 (1.02)		77.3 (1.08)		51.2 (1.16)	
	Educational level	Primary	75.4 (0.97)	0.07	58.5 (1.02)	0.93	72.9 (1.09)	<b>0.023</b>	51.1 (1.15)	0.19
		Secondary	85 (0.59)		58.9 (0.91)		86.9 (0.66)		59.4 (0.94)	
	Years in the foster home	1-3 years	86.5	0.51	67.4	0.33	72.8	0.28	62.2	0.27
		more than 5 years	77.3		56.4		80.1		51.1	
less than 1 year		77.1	62.5		64.5		45.8			
more than 3 to 5 years		67.1	53.3		72.2		53.8			
Place of residence	Rural	76.8	0.71	58.3	0.69	77.2	0.97	51.9	0.71	
	Camps	73		64.3		75.8		47.5		
	Urban	78.6		57.8		75.2		54.2		

**Table (5.14): The relationship between the four domains of quality of life and other independent variables among the participants who resided with their biological parents in the community (controls)**

Living place	Independent variables	Categories	Physical domain		Emotional domain		Social domain		School domain	
			M (SD)	Sig.	M (SD)	Sig.	M (SD)	Sig.	M (SD)	Sig.
Participants who resided with their biological parents in the community (controls)	Gender	Male	81.4 (0.76)	0.34	64.4 (0.96)	<b>0.016</b>	75.7 (1.04)	0.89	58.7 (1.19)	0.71
		Female	78.2 (0.72)		53.6 (0.93)		75.2 (0.99)		56.9 (1)	
	Organizational type	Bethlehem	86.3 (0.68)	<b>0.005</b>	63.3 (0.95)	0.29	81.4 (0.83)	0.06	67.6 (1.20)	<b>0.005</b>
		Hebron	76.6 (0.75)		58.4 (0.97)		72.3 (1.10)		52.7 (1.02)	
	Age	From 13 to less than 15 years	79.3	0.34	61.6	<b>0.05</b>	75.8	0.84	57.1	0.48
		From 15 to less than 18 years	83		55.5		74.7		61.3	
	Education	Primary	79.5 (0.74)	0.53	60.8 (0.96)	<b>0.00</b>	74.9 (0.01)	0.63	57.4 (1.12)	0.66
		Secondary	82 (0.76)		58.3 (0.99)		77.5 (1.07)		60 (1.14)	
	Place of residence	Rural	84.2	0.47	66.3	0.39	73.1	0.94	64.1	0.09
		Camps	75		52.5		76.6		38.3	
Urban		79.8	59.8		75.8		58.2			
Psychological History	Yes	66.4 (0.81)	<b>0.02</b>	46.4 (0.98)	<b>0.019</b>	61.1 (1.05)	<b>0.01</b>	47.6 (1.05)	0.33	
	No	83.3 (0.66)		64.9 (0.91)		78.2 (0.99)		59.1 (1.17)		

## **5.4 Section three: The results of the Brief Symptom Inventory-53 (BSI-53) and its relationship with other variables.**

This section consisted of two parts:

Part one: Psychological problems related findings.

Part two: The relationship between the psychological problems and the independent variables.

### **5.4.1. Part one: Psychological problems related findings**

T-test was used to test the mean differences between the participants from the foster homes and the participants who resided with their biological parents in the community in relation to the nine psychological problems and the additional items. The psychological problems' rating scale was assessed by the sum of the participants' average of "never, almost never, and sometimes" together, and the sum of the participants' average of "often and almost always" together as well. However, the results showed no statistically difference for all the psychological problems among the participants from the foster homes and the participants who resided with their biological parents in the community as none of the P-values had less than 0.05 as shown in table (5.15).

The table (5.15) below showed that both groups had the same mean values for three psychological problems out of nine; which were somatization, anxiety, and depression (the mean value for somatization for both groups was 1.98, the mean value for anxiety for both groups was 2.16, and the mean value for depression for both groups was 2.12). For example, 11.1% of the participants from the foster homes reported (often and almost always) they had somatization, and 13.4% of the participants who resided with their biological parents in the community reported (often and almost always) for the same questions. For depression, both groups had approximately the same percentage when they reported for "often and almost always" (17.1% for the participants from the foster homes and 17.5% for the participants who resided with their biological parents in the community). For anxiety, both groups had approximately the same percentages when they answered "often and almost always"; where 15.2% were for the participants from the foster homes and 15.7% were for the participants who resided with their

biological parents in the community and the results were not significant between both groups (P-value=0.95) as seen in table (5.15).

Also, the participants from the foster homes had slightly higher mean values than the participants who resided with their biological parents in the community in four psychological problems out of nine; which were, interpersonal sensitivity (the mean for the foster homes' group was 2.34 and the mean for the community's group was 2.30), paranoid ideation (the mean for foster homes group was 2.11 and the mean for the community group was 2.06), psychoticism (the mean for foster homes' group was 2.07 and the mean for the community's group was 2.06), and phobic anxiety (the mean for foster homes' group was 2.03 and the mean for the community's group was 1.95). However, the participant and the adolescents who resided with their biological parents in the community had higher mean values than the participants from the foster homes for two out of nine of the psychological problems which were obsession-compulsive (the mean for the foster homes group was 2.38 and the mean for the community group was 2.49), and hostility (the mean for the foster homes' group was 2.34 and the mean for the community's group was 2.40) as shown in the table (5.15).

Moreover, all questions of the psychological problems were assessed in more depth to find out which questions had the highest mean and the results were not significant for all questions; see table (5.15).

For example, for somatization, both groups had the highest mean; for q33 (Numbness or tingling in parts of your body) and the mean was 2.3 for the participants from the foster homes and 2.4 for the participants who resided with their biological parents in the community. Also, both groups had the same lowest mean values (mean=1.8) for q29 (trouble getting your breath) with p-value of 0.99 as seen in table (5.15).

Three questions had gained the highest mean in accordance to obsession-compulsive for the participants from the foster homes with a mean of 2.6, for q26 (Having to check and double-check what you do), q27 (Difficulty making decisions), and q36 (Trouble concentrating). For the participants who resided with their biological parents in the community, the highest mean (2.9) was for q26 (Having to check and double-check what you do). The lowest mean value for both groups was for q32 (your mind going blank) as the mean for the participants from the foster

homes was 2.1 and the mean value for the participants who resided with their biological parents in the community was 2.2 with p-value of (0.28) as seen in table (5.15).

For interpersonal sensitivity, both groups had the highest means for q20 (your feelings being easily hurt) as the mean for the participants from the foster homes was 2.7 and the mean for the participants who resided with their biological parents in the community was 2.6. The lowest mean value was for q22 (feeling inferior to others) as the mean for both groups was 1.8 and the P-value was 0.75 as shown in table (5.15).

For depression, the participants from the foster homes had a highest mean of 2.4 for q9 (thoughts of ending your life), and for q7 (feeling blue) for the participants who resided with their biological parents in the community. Also, q16 (feeling lonely) had the same mean value of 2.1 for both groups with p-value of 0.99. For anxiety, q38 (feeling tense and keyed up) had the highest mean of 2.5 for the participants from the foster homes, and q1 (nervousness or shakiness inside) had the highest mean of 2.7 for the participants who resided with their biological parents in the community. Further, q45 (spells of terrors or panic) had the same mean for both groups (mean=1.7) with p-value of 0.95 as shown in table (5.15).

For hostility, q6 (feeling easily annoyed or irritated) had the highest mean of 2.6 for the participants from the foster homes. For the participants who resided with their biological parents in the community, q6 (feeling easily annoyed or irritated) and q46 (getting into frequent arguments) had the highest mean value of 2.7. Also, q41 (having urges to break or smash things) with a mean of 2.3 and q13 (temper outbursts that you could not control) with a mean of 2.2 and had the same mean values for both groups with p-value of 0.56 as seen in table (5.15).

For phobic anxiety, the question that got the highest mean for the participants from the foster homes was q47 (feeling nervous when you are left alone) with a mean of 2.6, compared to the participants who resided with their biological parents in the community where q47 (feeling nervous when you are left alone) and q.31 (having to avoid certain things, places, or activities because they frighten you) had the highest mean of 2.1. In addition, q8 (feeling afraid in open spaces or on the streets) with a mean of 2.0 and q28 (feeling afraid to travel on buses, subways, or trains) with a mean of 1.7 had the same mean values for both groups with p-value of 0.45 as shown in table (5.15).

Moreover, for paranoid ideation, q10 (feeling that most people cannot be trusted) had the highest mean with the same mean value for both groups (mean =3.1), and q51 (feeling that people will take advantages of you if you let them) had the same mean value (2.6) for both groups with p-value of 0.62 as shown in table (5.15).

For psychoticism, q34 (the idea that you should be banished for your sins) had the highest mean for both groups (the mean for the participants from the foster homes was 2.7 and the mean for the participants who resided with their biological parents in the community was 2.6). In addition, q14 (feeling lonely even when you are with people) with a mean of 2.1 for both groups, q3 (the idea that someone else can control your thoughts) with a mean of 1.9 for both groups, and q44 (never feeling close to another person) with a mean of 1.9 for both groups with p-value of 0.90 as seen in table (5.15).

Finally, for the additional items, q39 (thoughts of death or dying) had the highest mean for both groups (the mean for the participants from the foster homes was 2.59 and the mean for the participants who resided with their biological parents in the community was 2.39 with P-value of 0.9 as shown in table (5.15).

**Table (5.15): The percentage, the mean value, the sum of answers, and the P-value of the psychological symptoms for the participants of both groups > 3**

Psychological problems	Participants	n/%	Never	Almost never	Sometimes	Often	Almost Always	Mean	< 3	> 3	P-value
<b>Somatization</b>											
<b>02. Faintness or dizziness</b>	Cases	n	57	24	20	5	1	1.8	Foster homes=88.9%	Foster homes=11.1%	0.99
		%	53.30%	22.40%	18.70%	4.70%	0.90%				
	Controls	n	66	30	13	10	2	1.8			
		%	54.50%	24.80%	10.70%	8.30%	1.70%				
<b>07. Pains in heart or chest</b>	Cases	n	57	13	21	5	9	2			
		%	54.30%	12.40%	20.00%	4.80%	8.60%				
	Controls	n	61	20	24	12	4	2			
		%	50.40%	16.50%	19.80%	9.90%	3.30%				
<b>23. Nausea or upset stomach</b>	Cases	n	48	29	14	7	5	2			
		%	46.60%	28.20%	13.60%	6.80%	4.90%				
	Controls	n	60	29	18	10	5	1.9			
		%	49.20%	23.80%	14.80%	8.20%	4.10%				
<b>29. Trouble getting your breath</b>	Cases	n	61	24	12	5	5	1.8			
		%	57.00%	22.40%	11.20%	4.70%	4.70%				
	Controls	n	64	33	12	6	7	1.8			
		%	52.50%	27.00%	9.80%	4.90%	5.70%				
<b>30. Hot or cold spells</b>	Cases	n	44	26	25	5	7	2.1			
		%	41.10%	24.30%	23.40%	4.70%	6.50%				
	Controls	n	57	36	17	7	5	1.9			
		%	46.70%	29.50%	13.90%	5.70%	4.10%				
<b>33. Numbness or tingling in parts of your body</b>	Cases	n	33	29	28	7	8	2.3			
		%	31.40%	27.60%	26.70%	6.70%	7.60%				
	Controls	n	40	31	20	18	12	2.4			
		%	33.10%	25.60%	16.50%	14.90%	9.90%				
<b>37. Feeling weak in parts of</b>	Cases	n	43	25	24	8	5	2.1	Community=86.6%	Community=13.4%	

<b>your body</b>		%	41.00%	23.80%	22.90%	7.60%	4.80%				
	Controls	n	52	35	18	9	7	2			
		%	43.00%	28.90%	14.90%	7.40%	5.80%				
<b>Obsession-Compulsive</b>											
<b>15. Feeling blocked in getting things done</b>	Cases	n	38	26	24	10	7	2.3	Foster homes=81.8%	Foster homes=18.2%	0.28
		%	36.20%	24.80%	22.90%	9.50%	6.70%				
	Controls	n	41	27	30	15	5	2.3			
		%	34.70%	22.90%	25.40%	12.70%	4.20%				
<b>05. Trouble remembering things</b>	Cases	n	32	35	22	7	9	2.3			
		%	30.50%	33.30%	21.00%	6.70%	8.60%				
	Controls	n	25	43	28	17	8	2.5			
		%	20.70%	35.50%	23.10%	14.00%	6.60%				
<b>26. Having to check and double-check what you do</b>	Cases	n	30	25	24	7	19	2.6			
		%	28.60%	23.80%	22.90%	6.70%	18.10%				
	Controls	n	24	28	23	20	23	2.9			
		%	20.30%	23.70%	19.50%	16.90%	19.50%				
<b>27. Difficulty making decisions</b>	Cases	n	24	22	38	11	9	2.6			
		%	23.10%	21.20%	36.50%	10.60%	8.70%				
	Controls	n	27	26	37	18	12	2.7			
		%	22.50%	21.70%	30.80%	15.00%	10.00%				
<b>32. Your mind going blank</b>	Cases	n	40	29	26	8	4	2.1			
		%	37.40%	27.10%	24.30%	7.50%	3.70%				
	Controls	n	46	27	27	17	5	2.2			
		%	37.70%	22.10%	22.10%	13.90%	4.10%				
<b>36. Trouble concentrating</b>	Cases	n	26	30	27	8	16	2.6			
		%	24.30%	28.00%	25.20%	7.50%	15.00%				
	Controls	n	33	36	18	19	15	2.6			
		%	27.30%	29.80%	14.90%	15.70%	12.40%				
<b>Interpersonal Sensitivity</b>											
<b>20. Your feelings being easily hurt</b>	Cases	n	37	17	16	9	25	2.7	Foster homes=78.8%	Foster homes=21.2%	0.75
		%	35.60%	16.30%	15.40%	8.70%	24.00%				

	Controls	n	34	32	23	9	22	2.6						
		%	28.30%	26.70%	19.20%	7.50%	18.30%							
<b>21. Feeling that people are unfriendly or dislike you</b>	Cases	n	36	24	26	9	11	2.4						
		%	34.00%	22.60%	24.50%	8.50%	10.40%							
	Controls	n	39	38	25	5	15	2.3						
		%	32.00%	31.10%	20.50%	4.10%	12.30%							
<b>22. Feeling inferior to others</b>	Cases	n	55	26	13	6	3	1.8	Community=79.3%	Community=20.7%				
		%	53.40%	25.20%	12.60%	5.80%	2.90%							
	Controls	n	75	17	11	11	6	1.8						
		%	62.50%	14.20%	9.20%	9.20%	5.00%							
<b>42. Feeling very self-conscious with others</b>	Cases	n	25	31	25	9	17	2.6						
		%	23.40%	29.00%	23.40%	8.40%	15.90%							
	Controls	n	35	34	20	15	17	2.5						
		%	28.90%	28.10%	16.50%	12.40%	14.00%							
<b>Depression</b>														
<b>09. Thoughts of ending your life</b>	Cases	n	41	22	18	10	15	2.4	Foster homes=82.9%	Foster homes=17.1%	0.99			
		%	38.70%	20.80%	17.00%	9.40%	14.20%							
	Controls	n	60	18	19	12	12	2.2						
		%	49.60%	14.90%	15.70%	9.90%	9.90%							
<b>16. Feeling lonely</b>	Cases	n	50	22	17	6	12	2.1						
		%	46.70%	20.60%	15.90%	5.60%	11.20%							
	Controls	n	54	27	23	10	8	2.1						
		%	44.30%	22.10%	18.90%	8.20%	6.60%							
<b>17. Feeling blue</b>	Cases	n	40	29	20	8	10	2.2						
		%	37.40%	27.10%	18.70%	7.50%	9.30%							
	Controls	n	42	29	23	16	10	2.4						
		%	35.00%	24.20%	19.20%	13.30%	8.30%							
<b>18. Feeling no interest in things</b>	Cases	n	34	33	20	11	8	2.3	Community=82.5%	Community=17.5%				
		%	32.10%	31.10%	18.90%	10.40%	7.50%							
	Controls	n	38	37	29	7	6	2.2						
		%	32.50%	31.60%	24.80%	6.00%	5.10%							
<b>35. Feeling hopeless about the</b>	Cases	n	57	17	13	8	10	2						

<b>future</b>	Controls	%	54.30%	16.20%	12.40%	7.60%	9.50%	2.3						
		n	51	22	18	15	13							
<b>50. Feelings of worthlessness</b>	Cases	%	42.90%	18.50%	15.10%	12.60%	10.90%	1.7						
		n	72	11	12	4	7							
	Controls	%	67.90%	10.40%	11.30%	3.80%	6.60%	1.8						
		n	74	17	12	11	6							
<b>Anxiety</b>														
<b>01. Nervousness or shakiness inside</b>	Cases	n	25	33	32	10	7	2.4				Foster homes=84.8%	Foster homes=15.2%	0.95
		%	23.40%	30.80%	29.90%	9.30%	6.50%							
Controls	n	23	32	40	12	15	2.7							
	%	18.90%	26.20%	32.80%	9.80%	12.30%								
<b>12. Suddenly scared for no reason</b>	Cases	n	57	25	9	9	6	1.9						
		%	53.80%	23.60%	8.50%	8.50%	5.70%							
Controls	n	62	20	15	14	10	2.1							
	%	51.20%	16.50%	12.40%	11.60%	8.30%								
<b>19. Feeling fearful</b>	Cases	n	39	28	24	5	10	2.2						
		%	36.80%	26.40%	22.60%	4.70%	9.40%							
Controls	n	43	40	27	7	5	2.1							
	%	35.20%	32.80%	22.10%	5.70%	4.10%								
<b>38. Feeling tense or keyed up</b>	Cases	n	26	31	30	9	9	2.5	Community=84.3%	Community=15.7%				
		%	24.80%	29.50%	28.60%	8.60%	8.60%							
Controls	n	33	25	29	22	12	2.6							
	%	27.30%	20.70%	24.00%	18.20%	9.90%								
<b>45. Spells of terror or panic</b>	Cases	n	59	28	9	7	2	1.7						
		%	56.20%	26.70%	8.60%	6.70%	1.90%							
Controls	n	71	28	15	3	4	1.7							
	%	58.70%	23.10%	12.40%	2.50%	3.30%								
<b>49. Feeling so restless you couldn't sit still</b>	Cases	n	35	30	18	8	14	2.4						
		%	33.30%	28.60%	17.10%	7.60%	13.30%							
Controls	n	65	27	19	9	1	1.8							

		%	53.70%	22.30%	15.70%	7.40%	0.80%				
<b>Hostility</b>											
<b>06. Feeling easily annoyed or irritated</b>	Cases	n	25	30	24	16	9	2.6	Foster homes=78.2%	Foster homes=21.8%	0.56
		%	24.00%	28.80%	23.10%	15.40%	8.70%				
	Controls	n	33	16	35	23	12	2.7			
		%	27.70%	13.40%	29.40%	19.30%	10.10%				
<b>13. Temper outbursts that you could not control</b>	Cases	n	49	20	11	11	12	2.2			
		%	47.60%	19.40%	10.70%	10.70%	11.70%				
	Controls	n	58	21	18	11	13	2.2			
		%	47.90%	17.40%	14.90%	9.10%	10.70%				
<b>40. Having urges to beat, injure, or harm someone</b>	Cases	n	44	21	16	7	19	2.4			
		%	41.10%	19.60%	15.00%	6.50%	17.80%				
	Controls	n	49	23	22	13	13	2.3			
		%	40.80%	19.20%	18.30%	10.80%	10.80%				
<b>41. Having urges to break or smash things</b>	Cases	n	42	26	17	6	15	2.3			
		%	39.60%	24.50%	16.00%	5.70%	14.20%				
	Controls	n	52	21	18	17	12	2.3			
		%	43.30%	17.50%	15.00%	14.20%	10.00%				
<b>46. Getting into frequent arguments</b>	Cases	n	28	26	31	10	9	2.5			
		%	26.90%	25.00%	29.80%	9.60%	8.70%				
	Controls	n	30	30	27	14	20	2.7			
		%	24.80%	24.80%	22.30%	11.60%	16.50%				
<b>Phobic Anxiety</b>											
<b>08. Feeling afraid in open spaces or on the streets</b>	Cases	n	54	18	19	5	10	2	Foster homes=86%	Foster homes=14%	0.45
		%	50.90%	17.00%	17.90%	4.70%	9.40%				
	Controls	n	66	23	16	6	11	2			
		%	54.10%	18.90%	13.10%	4.90%	9.00%				
<b>28. Feeling afraid to travel on buses, subways, or trains</b>	Cases	n	72	12	10	1	11	1.7			
		%	67.90%	11.30%	9.40%	0.90%	10.40%				
	Controls	n	82	15	8	8	8	1.7			
		%	67.80%	12.40%	6.60%	6.60%	6.60%				

<b>31. Having to avoid certain things, places, or activities because they frighten you</b>	Cases	n	54	27	19	2	3	1.8	Community=85.1%	Community=14.9%	
		%	51.40%	25.70%	18.10%	1.90%	2.90%				
Controls	n	50	35	18	9	10	2.1				
	%	41.00%	28.70%	14.80%	7.40%	8.20%					
<b>43. Feeling uneasy in crowds, such as shopping or at a movie</b>	Cases	n	49	22	20	5	9	2.1			
		%	46.70%	21.00%	19.00%	4.80%	8.60%				
Controls	n	67	23	13	9	9	1.9				
	%	55.40%	19.00%	10.70%	7.40%	7.40%					
<b>47. Feeling nervous when you are left alone</b>	Cases	n	34	21	24	11	17	2.6			
		%	31.80%	19.60%	22.40%	10.30%	15.90%				
Controls	n	58	23	17	8	12	2.1				
	%	49.20%	19.50%	14.40%	6.80%	10.20%					
<b>Paranoid Ideation</b>											
<b>10. Feeling that most people cannot be trusted</b>	Cases	n	14	20	32	19	21	3.1	Foster homes=73.7%	Foster homes=26.3%	0.62
		%	13.20%	18.90%	30.20%	17.90%	19.80%				
Controls	n	19	20	33	29	19	3.1				
	%	15.80%	16.70%	27.50%	24.20%	15.80%					
<b>24. Feeling that you are watched or talked about others</b>	Cases	n	28	32	22	4	17	2.5			
		%	27.20%	31.10%	21.40%	3.90%	16.50%				
Controls	n	29	39	18	20	14	2.6				
	%	24.20%	32.50%	15.00%	16.70%	11.70%					
<b>04. Feeling others are to blame for most of your troubles</b>	Cases	n	36	22	23	10	14	2.5			
		%	34.30%	21.00%	21.90%	9.50%	13.30%				
Controls	n	51	30	24	8	9	2.1				
	%	41.80%	24.60%	19.70%	6.60%	7.40%					
<b>48. Others not giving you proper credit for your achievements</b>	Cases	n	40	26	17	10	13	2.3	Community=75.6%	Community=24.4%	
		%	37.70%	24.50%	16.00%	9.40%	12.30%				
Controls	n	38	29	36	9	9	2.4				
	%	31.40%	24.00%	29.80%	7.40%	7.40%					
<b>51. Feeling that people will take advantage of you if you</b>	Cases	n	34	24	18	12	19	2.6			
		%	31.80%	22.40%	16.80%	11.20%	17.80%				

<b>let them</b>	Controls	n	32	31	28	12	18	2.6			
		%	26.40%	25.60%	23.10%	9.90%	14.90%				
<b>Psychoticism</b>											
<b>03. The idea that someone else can control your thoughts</b>	Cases	n	56	21	18	5	6	1.9			
		%	52.80%	19.80%	17.00%	4.70%	5.70%				
	Controls	n	62	23	29	7	1	1.9			
		%	50.80%	18.90%	23.80%	5.70%	0.80%				
<b>44. Never feeling close to another person</b>	Cases	n	52	30	14	5	5	1.9	Foster homes=83.8%	Foster homes=16.2%	
		%	49.10%	28.30%	13.20%	4.70%	4.70%				
	Controls	n	62	30	17	8	4	1.9			
		%	51.20%	24.80%	14.00%	6.60%	3.30%				
<b>34. The idea that you should be banished for your sins</b>	Cases	n	30	18	28	14	16	2.7			0.9
		%	28.30%	17.00%	26.40%	13.20%	15.10%				
	Controls	n	26	34	36	12	13	2.6			
		%	21.50%	28.10%	29.80%	9.90%	10.70%				
<b>14. Feeling lonely even when you are with people</b>	Cases	n	52	20	12	9	12	2.1	Community=86.2%	Community=13.8%	
		%	49.50%	19.00%	11.40%	8.60%	11.40%				
	Controls	n	57	25	20	12	8	2.1			
		%	46.70%	20.50%	16.40%	9.80%	6.60%				
<b>53. The idea that something is wrong with your mind</b>	Cases	n	63	19	11	9	5	1.8			
		%	58.90%	17.80%	10.30%	8.40%	4.70%				
	Controls	n	70	19	14	14	5	1.9			
		%	57.40%	15.60%	11.50%	11.50%	4.10%				
<b>Additional Items</b>											
<b>39. Thoughts of death or dying</b>	Cases	n	40	20	14	9	24	2.59	Foster homes=77.8%	Foster homes=22.2%	0.9
		%	37.40%	18.70%	13.10%	8.40%	22.40%				
	Controls	n	51	22	18	8	22	2.39			
		%	42.10%	18.20%	14.90%	6.60%	18.20%				
<b>25. Trouble falling asleep</b>	Cases	n	31	24	19	10	20	2.58			
		%	29.80%	23.10%	18.30%	9.60%	19.20%				
	Controls	n	42	29	32	11	7	2.25			

		%	34.70%	24.00%	26.40%	9.10%	5.80%				
<b>11.Lack of appetite</b>	Cases	n	36	28	29	7	3	2.07	Community=80.2%	Community=19.8%	
		%	35.00%	27.20%	28.20%	6.80%	2.90%				
	Controls	n	48	32	23	14	5	2.14			
		%	39.30%	26.20%	18.90%	11.50%	4.10%				
<b>52. Feelings of guilt</b>	Cases	n	34	28	24	12	9	2.38			
		%	31.80%	26.20%	22.40%	11.20%	8.40%				
	Controls	n	27	36	30	18	11	2.6			
		%	22.10%	29.50%	24.60%	14.80%	9.00%				

#### **5.4.1.1. Scoring the Brief Symptom Inventory-53**

Scoring the BSI was calculated by using the BSI scoring templates and worksheet. Raw scores are derived by first summing the values (i.e., 0-4) for the items in each of the nine symptom dimensions and the four additional items. The sum for each symptom dimension is then divided by the number of endorsed (according to the client responses to the items) items in that dimension.

The GSI (Global Severity Index) was calculated by the sums for the nine symptom dimensions and the additional items (which were not included in any of the dimension scores) and dividing by the total number of items to which the individual responded. Of the three global indices the GSI is the most sensitive indicator of the respondent's distress level and combines information about the number of symptoms and the intensity of distress.

Positive Symptom Total (PST). The PST is a count of all the items with non-zero responses and reveals the number of symptoms the respondent reports experiencing.

Positive Symptom Distress Index (PSDI). The PSDI is the sum of the values of the items receiving non-zero responses divided by the PST. This index provides information about the average level of distress the respondent experiences.

For the participants from the foster homes, table (5.16) showed that the additional items (2.40) had the highest row score, then the obsession-compulsive (2.38), the interpersonal-sensitivity and hostility (2.34), the anxiety (2.16), the depression (2.12), the paranoid ideation (2.11), the psychoticism (2.07), the phobic anxiety (2.03), and finally the somatization (1.98).

For the participants who resided with their biological parents in the community, the highest row score was for the obsession-compulsive (2.49), then the hostility (2.40), the additional items (2.34), the interpersonal sensitivity (2.30), the anxiety (2.16), the depression (2.12), the paranoid ideation and the psychoticism (2.06), the somatization (1.98), and finally the phobic anxiety (1.95) as seen in table (5.16).

Also, table (5.16) showed that both groups had the same mean row score for the somatization (1.98), anxiety (2.16), and depression (2.12). The participants from the foster homes had higher row scores than the participants who resided with their biological parents in the community for

additional items, interpersonal sensitivity, paranoid ideation, psychoticism and phobic anxiety. Moreover, the participants who resided with their parents in the community had higher raw scores for the obsession-compulsive and the hostility.

Also, the Global index scores were calculated for the participants from the foster homes and the participants who resided with their biological parents in the community; it showed that the GSI mean scores were (2.25) and (2.24) respectively, the PSDI mean scores were (3.1) and (2.99) respectively, and the PST mean scores were (31.6) and (31.5) respectively; as the participants from the foster homes had a very mild higher scores than the participants who resided with their biological parents in the community as shown in table (5.16).

**Table: (5.16): BSI scoring (mean and total T-score) for the nine psychological symptoms among the participants from the foster homes and participants who resided with their biological parents in the community**

Living place	Psychological symptoms	M (SD)	Total T-score		
			Males	Females	
<b>Foster homes (cases)</b>	Somatization	1.98 (0.77)	66	68.8	
	Obsession Compulsive	2.38 (0.77)	66	68	
	Interpersonal sensitivity	2.34 (0.91)	64	64	
	Depression	2.12 (0.85)	64	64	
	Anxiety	2.16 (0.75)	67.2	67.2	
	Hostility	2.34 (0.83)	62	65	
	Phobic anxiety	2.03 (0.85)	67	69	
	Paranoid ideation	2.11 (0.75)	60	62	
	Psychoticism	2.07 (0.74)	65	65	
	<b>Global index scores</b>				
	GSI	2.25 (0.62)	68.6	70.6	
	PSDI	3.1 (0.53)	69.3	72	
PST	31.6 (11.9)	54	55.7		
<b>Community (controls)</b>	Somatization	1.98 (0.74)	66	68.8	
	Obsession Compulsive	2.49 (0.72)	66.3	68.4	
	Interpersonal sensitivity	2.30 (0.95)	64	64	
	Depression	2.12 (0.79)	64	64	
	Anxiety	2.16 (0.82)	66.7	67.2	
	Hostility	2.40 (0.87)	62.9	66	
	Phobic anxiety	1.95 (0.81)	66	67	
	Paranoid ideation	2.06 (0.75)	60	69	
	Psychoticism	2.06 (0.68)	65	65	
	<b>Global index scores</b>				
	GSI	2.24 (0.65)	68.4	70.8	
	PDSI	2.99 (0.52)	68.9	71.8	
PST	31.5 (12.1)	41.2	55.9		

**5.4.2. Part two: The relationship between psychological problems and other independent variables.**

For the relationship between psychological problems and other independent variables, ANOVA and T-test were used to assess their relationships as seen in tables (5.17), (5.18), (5.19), (5.20), (5.21), (5.22), (5.23), (5.24), (5.25), and (5.26).

For somatization, for the participants from the foster homes, the results revealed that there was a significant relationship between age and somatization at P-value (0.04) as the participants who aged between 13 years old- less than 15 years old had higher mean (2.05) than the participants who aged between 15 years old- less than 18 years old (1.74). Also, the table below (5.16) showed that there was a significant relationship between educational level and somatization at P-value (0.00); as the participants from the primary levels had a higher mean (2.07) than the secondary levels (1.66). Further, the findings revealed a significant relationship between having previous psychological history and somatization at P-value (0.03) as the participants who answered “Yes” had a higher mean value (mean=2.23) than who answered “No” (mean=1.88). For the participants who resided with their biological parents in the community, table (5.17) showed that there was a significant relationship between having previous psychological history and somatization at P-value (0.01) as the participants who answered “Yes” had a higher mean (mean=2.37) than the participants who answered “No” (mean=1.86) as shown in table (5.17).

However, there was no significant relationship between somatization and gender, being in the foster home’s type, place of residence, having siblings in the same foster home, and years spent in the foster home for the participants from the foster homes. For the participants who resided with their biological parents in the community, there was no significant relationship between somatization and gender, the foster home’s type, age, education, and place of residence as shown in table (5.17).

**Table (5.17): The relationship between somatization and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Somatization	Male	1.97	0.91	Male	1.92	.27	
	Female	1.99		Female	2.08		
	<b>Organizational type</b>						
	SOS /Bethlehem	1.85	0.14	SOS/Bethlehem	1.88	.26	
	ICS/Hebron	2.07		ICS/Hebron	2.04		
	<b>Age</b>						
	From 13 to less than 15 years	2.05	<b>0.04</b>	From 13 to less than 15 years	1.99	.83	
	From 15 to less than 18 years	1.74		From 15 to less than 18 years	1.96		
	<b>Previous psychological history</b>						
	Yes	2.23	<b>0.03</b>	Yes	2.37	<b>.01</b>	
	No	1.88		No	1.86		
	<b>Education</b>						
	Primary	2.07	<b>0.00</b>	Primary	2.00	.64	
	Secondary	1.66		Secondary	1.93		
	<b>Place of residence</b>						
	Village	1.85	0.36	Village	1.93	.34	
	Camp	2.08		Camp	2.46		
	City	2.01		City	1.97		
	<b>Siblings</b>						
	Yes	1.95	0.57				
No	2.06						
<b>Years spent in the foster home</b>							
Between 1 to 3 years	1.83	.22					
More than 5 years	1.93						
Less than 1 year	2.05						
Between 3 to 5 years	2.34						

For obsession-compulsive, the findings in table (5.18) revealed a significant relationship between being in the SOS Village in Bethlehem or in the Islamic Charitable Society in Hebron and obsession compulsive at P-value (0.00) as the participants from the Islamic Charitable Society had a higher mean (2.59) than the participants from the SOS Village (mean=2.11). For the participants who resided with their biological parents in the community, findings showed a statistically significant relationship between age and obsession compulsive at P-value (0.05) as the participants aged between 15 years old-to less than 18 years old had a higher mean (2.72) than the participants aged between 13 years old-less than 15 years old (2.42). Moreover, there was a significant relationship between having previous psychological history and obsession

compulsive at P-value (0.04) as the participants who answered “Yes” had a higher mean (2.76) than the participants who answered “No” (mean=2.40) as shown in table (5.18).

Also, for the participants from the foster homes, there were no significant relationships between obsession-compulsive and gender, age, having previous psychological history, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between obsession-compulsive and gender, being in the foster home, education, and place of residence as seen in table (5.18).

**Table (5.18): The relationship between obsession-compulsive and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Obsession-compulsive	Male	2.24	0.08	Male	2.42	.18	
	Female	2.51		Female	2.60		
	<b>Organizational type</b>						
	SOS/Bethlehem	2.11	<b>0.00</b>	SOS/Bethlehem	2.36	.14	
	ICS/Hebron	2.59		ICS/Hebron	2.56		
	<b>Age</b>						
	From 13 to less than 15 years	2.45	0.14	From 13 to less than 15 years	2.42	<b>.05</b>	
	From 15 to less than 18 years	2.19		From 15 to less than 18 years	2.72		
	<b>Previous psychological history</b>						
	Yes	2.31	0.54	Yes	2.76	<b>.04</b>	
	No	2.41		No	2.40		
	<b>Education</b>						
	Primary	2.42	0.42	Primary	2.42	.07	
	Secondary	2.27		Secondary	2.69		
	<b>Place of residence</b>						
	Village	2.41	0.74	Village	2.58	.58	
	Camp	2.58		Camp	2.77		
	City	2.44		City	2.46		
	<b>Siblings</b>						
	Yes	2.38	0.89				
	No	2.40					
	<b>Years in the foster home</b>						
Between 1 to 3 years	2.30	.41					
More than 5 years	2.40						
Less than 1 year	2.42						
Between 3 to 5 years	2.64						

For interpersonal-sensitivity, for the participants from the foster homes, the findings revealed a significant relationship between being in the SOS Village in Bethlehem or in the Islamic Charitable Society in Hebron and interpersonal sensitivity at P-value (0.03) as the participants from the Islamic Charitable Society in Hebron had a higher mean of (2.50) than the participants from the SOS Village (mean=2.12), and a significant relationship between interpersonal sensitivity and having previous psychological history at p-value of (0.05) as the participants who answered “Yes” had a higher mean (mean=2.61) than the participants who answered “No” (mean=2.22). On the other hand, table (5.19) showed that there was a significant relationship between interpersonal sensitivity and the organizational type for the participants who resided with their biological parents in the community at P-value (0.01) as the participants from the Islamic Charitable Society had a higher mean (2.46) than the SOS Village (2.01). It also showed a significant relationship between having previous psychological history and interpersonal sensitivity at P-value (0.00) as the participants who answered “Yes” had a higher mean (mean=2.98) than the participants who answered “No” (mean=2.13).

Moreover, for the participants from the foster homes, there were no significant relationships between interpersonal sensitivity and gender, age, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between interpersonal sensitivity and gender, age, education, and place of residence as seen in table (5.19).

**Table (5.19): The relationship between interpersonal sensitivity and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Interpersonal sensitivity	Male	2.17	0.07	Male	2.22	.23	
	Female	2.48		Female	2.43		
	<b>Organizational type</b>						
	SOS/Bethlehem	2.12	<b>0.03</b>	SOS/Bethlehem	2.01	<b>.01</b>	
	ICS/Hebron	2.50		ICS/Hebron	2.46		
	<b>Age</b>						
	From 13 to less than 15 years	2.37	0.54	From 13 to less than 15 years	2.32	.74	
	From 15 to less than 18 years	2.24		From 15 to less than 18 years	2.24		
	<b>Previous psychological history</b>						
	Yes	2.61	<b>0.05</b>	Yes	2.98	<b>.00</b>	
	No	2.22		No	2.13		
	<b>Education</b>						
	Primary	2.38	0.44	Primary	2.33	.51	
	Secondary	2.21		Secondary	2.19		
	<b>Place of residence</b>						
	Village	2.17	0.18	Rural	1.96	.18	
	Camp	2.67		Camp	2.85		
	City	2.33		Urban	2.32		
	<b>Siblings</b>						
	Yes	2.43	0.08				
	No	2.07					
	<b>Years in the foster home</b>						
	Between 1 to 3 years	2.21	.23				
More than 5 years	2.32						
Less than 1 year	2.57						
Between 3 to 5 years	2.73						

For depression, the findings revealed a significant relationship between depression and being in the SOS Village in Bethlehem or in the Islamic Charitable Society in Hebron for the participants from the foster homes at P-value (0.01) as the participants who lived in the Islamic Charitable Society had a higher mean (2.28) than the participants who lived in the SOS Village (1.89). Also, it showed a statistically significant relationship between having previous psychological history and depression at P-value (0.05) as the participants who answered “Yes” had a higher mean (2.34) than the participants who answered “No” (2.02). For the participants who resided with their biological parents in the community, table (5.20) showed that there was a statistically significant relationship between having previous psychological history and

depression at P-value (0.00) as the participants who answered “Yes” had a higher mean (2.68) than the participants who answered “No” (2.00) as shown in table (5.20).

Further, , for the participants from the foster homes, there were no significant relationships between depression and gender, age, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between depression and gender, being in the foster home, age, education, and place of residence as seen in table (5.20).

**Table (5.20): The relationship between depression and the independent variables for the participants from the foster homes and who the adolescents resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
<b>Depression</b>	Male	2.03	0.34	Male	2.08	.48	
	Female	2.19		Female	2.18		
	<b>Organizational type</b>						
	SOS/Bethlehem	1.89	<b>0.01</b>	SOS/Bethlehem	2.03	.35	
	ICS/Hebron	2.28		ICS/Hebron	2.17		
	<b>Age</b>						
	From 13 to less than 15 years	2.12	0.99	From 13 to less than 15 years	2.11	.77	
	From 15 to less than 18 years	2.12		From 15 to less than 18 years	2.15		
	<b>Previous psychological history</b>						
	Yes	2.34	<b>0.05</b>	Yes	2.68	<b>.00</b>	
	No	2.02		No	2.00		
	<b>Education</b>						
	Primary	2.18	0.18	Primary	2.12	.99	
	Secondary	1.91		Secondary	2.12		
	<b>Place of residence</b>						
	Village	1.95	0.23	Village	1.96	.23	
	Camp	2.30		Camp	2.67		
	City	2.15		City	2.11		
	<b>Siblings</b>						
	Yes	2.15	0.50				
	No	2.02					
	<b>Years in the institution</b>						
	Between 1 to 3 years	2.03	.56				
	More than 5 years	2.16					
Less than 1 year	2.22						
Between 3 to 5 years	2.36						

Additionally, for anxiety, the T-test revealed a significant relationship between educational level and anxiety for the participants from the foster homes at P-value (0.04) as the primary levels had a higher mean (2.22) than the secondary levels (1.94). Also, there was a significant relationship between anxiety and being in the foster home at p-value (0.05) as the participants from the Islamic Charitable Society had a higher mean (2.28) than the SOS Village (2.00). For the participants who resided with their biological parents in the community, the results showed that there was a statistically significant relationship between gender and anxiety at P-value (0.01) as females had a higher mean (2.40) than males (2.00). Also, there was a statistically significant relationship between having previous psychological history and anxiety at P-value (0.01) as the participants who answered “Yes” had a higher mean (2.64) than the participants who answered “No” (2.03) as shown in table (5.21).

In addition, for the participants from the foster homes, there were no significant relationships between anxiety and gender, age, having previous psychological history, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between anxiety and being in the foster home, age, education, and place of residence as shown in table (5.21).

**Table (5.21): The relationship between anxiety and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Anxiety	Male	2.17	0.90	Male	2.00	<b>.01</b>	
	Female	2.16		Female	2.40		
	<b>Organizational type</b>						
	SOS/Bethlehem	2.00	<b>0.05</b>	SOS/Bethlehem	2.09	.52	
	ICS/Hebron	2.28		ICS/Hebron	2.19		
	<b>Age</b>						
	From 13 to less than 15 years	2.20	0.32	From 13 to less than 15 years	2.18	.46	
	From 15 to less than 18 years	2.03		From 15 to less than 18 years	2.07		
	<b>Previous psychological history</b>						
	Yes	2.39	0.06	Yes	2.64	<b>.01</b>	
	No	2.07		No	2.03		
	<b>Education</b>						
	Primary	2.22	<b>0.04</b>	Primary	2.20	.19	
	Secondary	1.94		Secondary	2.01		
	<b>Place of residence</b>						
	Village	2.16	1.00	Village	1.98	.46	
	Camp	2.18		Camp	2.50		
	City	2.16		City	2.17		
	<b>Siblings</b>						
	Yes	2.19	0.60				
No	2.10						
<b>Years spent in the foster home</b>							
Between 1 to 3 years	2.04	.58					
More than 5 years	2.06						
Less than 1 year	2.17						
Between 3 to 5 years	2.38						

For hostility, ANOVA and T-test results showed no statistically significant relationships between hostility and the other variables for the participants from the foster homes. For the participants who resided with their biological parents in the community, table (5.22) showed that there was a significant relationship between having previous psychological history and hostility at P-value (0.00) as the participants who answered “Yes” had a higher mean (2.84) than participants who answered “No” (2.21) as shown in table (5.22).

For the participants who resided with their biological parents in the community, there were no significant relationships between hostility and gender, being in the foster home, age, education, and place of residence as seen in table (5.22).

**Table (5.22): The relationship between hostility and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Hostility	Male	2.33	0.89	Male	2.36	.46	
	Female	2.35		Female	2.48		
	<b>Organizational type</b>						
	SOS/Bethlehem	2.25	0.41	SOS/Bethlehem	2.36	.72	
	ICS/Hebron	2.40		ICS/Hebron	2.43		
	<b>Age</b>						
	From 13 to less than 15 years	2.32	0.71	From 13 to less than 15 years	2.36	.20	
	From 15 to less than 18 years	2.39		From 15 to less than 18 years	2.56		
	<b>Previous psychological history</b>						
	Yes	2.31	0.08	Yes	2.84	.00	
	No	2.33		No	2.21		
	<b>Education</b>						
	Primary	2.36	0.61	Primary	2.38	.54	
	Secondary	2.27		Secondary	2.48		
	<b>Place of residence</b>						
	Village	2.30	0.34	Village	2.33	.11	
	Camp	2.67		Camp	3.20		
	City	2.38		City	2.37		
	<b>Siblings</b>						
	Yes	2.33	0.91				
No	2.35						
<b>Years spent in the foster home</b>							
Between 1 to 3 years	2.04	.31					
More than 5 years	2.24						
Less than 1 year	2.42						
Between 3 to 5 years	2.44						

Regarding the relationship between phobic anxiety and gender, the results revealed a significant relationship for the participants from the foster homes at P-value (0.05) where the females had a higher mean (2.17) than the males (1.86). In addition, the findings revealed a significant relationship between being in the SOS Village in Bethlehem and in the Islamic Charitable Society in Hebron and phobic anxiety at P-value (0.00) as the participants who lived in the Islamic Charitable Society had a higher mean (mean=2.25) than the participants who lived in the SOS Village (mean=1.72). Also, the findings revealed a significant relationship between having previous psychological history and phobic anxiety at P-value (0.04) as the participants who answered “Yes” had a higher mean (2.26) than the participants who answered “No” (1.94). For the participants who resided with their biological parents in the community,

there was a significant relationship between having previous psychological history and phobic anxiety at P-value (0.00) as the participants who answered “Yes” had a higher mean (2.55) than the participants who answered “No” (1.85) as shown in table (5.23).

Also, for the participants from the foster homes, there were no significant relationships between phobic anxiety and age, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between phobic anxiety and gender, being in the foster home, age, education, and place of residence as seen in table (5.23).

**Table (5.23): The relationship between phobic anxiety and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
<b>Phobic anxiety</b>	Male	1.86	<b>0.05</b>	Male	1.83	.06	
	Female	2.17		Female	2.13		
	<b>Organizational type</b>						
	SOS/Bethlehem	1.72	<b>0.00</b>	SOS/Bethlehem	1.85	.33	
	ICS/Hebron	2.25		ICS/Hebron	2.00		
	<b>Age</b>						
	From 13 to less than 15 years	2.07	0.40	From 13 to less than 15 years	1.94	.93	
	From 15 to less than 18 years	1.90		From 15 to less than 18 years	1.96		
	<b>Previous psychological history</b>						
	Yes	2.26	<b>0.04</b>	Yes	2.55	<b>.00</b>	
	No	1.94		No	1.85		
	<b>Education</b>						
	Primary	2.05	0.15	Primary	1.97	.51	
	Secondary	1.97		Secondary	1.87		
	<b>Place of residence</b>						
	Village	2.02	0.49	Village	2.03	.45	
	Camp	2.21		Camp	2.36		
	City	1.96		City	1.91		
	<b>Siblings</b>						
	Yes	2.09	0.15				
No	1.82						
<b>Years spent in the foster home</b>							
Between 1 to 3 years	1.92	.40					
More than 5 years	2.03						
Less than 1 year	2.20						
Between 3 to 5 years	2.25						

For paranoid ideation, for the participants from the foster homes and paranoid ideation, the findings revealed a significant relationship between being in the SOS Village in Bethlehem or in the Islamic Charitable Society in Hebron and paranoid ideation at P-value (0.05), as the Islamic Charitable Society in Hebron had a higher mean (2.30) than the SOS Village (1.84). In addition, the results revealed a significant relationship between age and paranoid ideation at P-value (0.04) as the participants who aged between 13 years old-to less than 15 years old had a higher mean (2.19) than the participants who aged between 15 years old-to less than 18 years old (1.84). Also, there was a significant relationship between having previous psychological history and paranoid ideation at P-value (0.02), as the participants who answered “Yes” for having previous history had a higher mean (2.35) than the participants who answered “No” (2.01) as shown in table (5.24).

Furthermore, for the relationship between having previous psychological history and paranoid ideation among the participants who resided with their biological parents in the community, the findings revealed a significant relationship between them at P-value (0.00); as all the participants who answered “Yes” had a higher mean (2.57) than the participants who answered “No”(1.95) as seen in table (5.24).

Furthermore, for the participants from the foster homes, there were no significant relationships between paranoid ideation and gender, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, there were no significant relationships between paranoid ideation and gender, being in the foster home, age, education, and place of residence as shown in table (5.24).

**Table (5.24): The relationship between paranoid ideation and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Paranoid ideation	Male	1.96	0.06	Male	2.00	.28	
	Female	2.23		Female	2.15		
	<b>Organizational type</b>						
	SOS/Bethlehem	1.84	<b>0.05</b>	SOS/Bethlehem	2.05	.92	
	ICS/Hebron	2.30		ICS/Hebron	2.06		
	<b>Age</b>						
	From 13 to less than 15 years	2.19	<b>0.04</b>	From 13 to less than 15 years	2.04	.54	
	From 15 to less than 18 years	1.84		From 15 to less than 18 years	2.14		
	<b>Previous psychological history</b>						
	Yes	2.35	<b>0.02</b>	Yes	2.57	<b>.00</b>	
	No	2.01		No	1.95		
	<b>Education</b>						
	Primary	2.14	0.37	Primary	2.05	.74	
	Secondary	1.98		Secondary	2.10		
	<b>Place of residence</b>						
	Village	2.06	0.53	Village	2.03	.08	
	Camp	2.29		Camp	2.80		
	City	2.07		City	2.03		
	<b>Siblings</b>						
	Yes	2.13	0.63				
	No	2.05					
<b>Years spent in the foster home</b>							
Between 1 to 3 years	2.02	.49					
More than 5 years	2.15						
Less than 1 year	2.24						
Between 3 to 5 years	2.33						

For psychoticism, the findings for the participants from the foster homes revealed a significant relationship between being in the foster homes and psychoticism at P-value (0.04); as the Islamic Charitable Society in Hebron had a higher mean (2.19) than the SOS Village (1.90). For the participants who resided with their biological parents in the community, there was a significant relationship between having previous psychological history and psychoticism at P-value (0.00) as the participants who answered “Yes” for having previous history had a higher mean (2.57) than the participants who answered “No” (1.95) as shown in table (5.25).

For the participants from the foster homes, table (5.25) showed no significant relationship between psychoticism and gender, age, having previous psychological history, education, place

of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, the results revealed no significant relationship between psychoticism and gender, foster home's type, age, education, and place of residence as shown in table (5.25).

**Table (5.25): The relationship between psychoticism and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Psychoticism	Male	2.05	0.85	Male	1.99	.20	
	Female	2.08		Female	2.15		
	<b>Organizational type</b>						
	SOS/Bethlehem	1.90	<b>0.04</b>	SOS/Bethlehem	1.95	.20	
	ICS/Hebron	2.19		ICS/Hebron	2.12		
	<b>Age</b>						
	From 13 to less than 15 years	2.12	0.09	From 13 to less than 15 years	2.04	.73	
	From 15 to less than 18 years	1.88		From 15 to less than 18 years	2.09		
	<b>Previous psychological history</b>						
	Yes	2.27	0.08	Yes	2.57	<b>.00</b>	
	No	1.97		No	1.95		
	<b>Education</b>						
	Primary	2.12	0.10	Primary	2.03	.55	
	Secondary	1.87		Secondary	2.12		
	<b>Place of residence</b>						
	Village	2.05	0.78	Village	2.04	.98	
	Camp	2.19		Camp	2.00		
	City	2.06		City	2.06		
	<b>Siblings</b>						
	Yes	2.06	0.80				
No	2.10						
<b>Years spent in the foster home</b>							
Between 1 to 3 years	1.99	.30					
More than 5 years	2.04						
Less than 1 year	2.11						
Between 3 to 5 years	2.43						

Finally, for the additional items, the findings showed that both participants' groups had a significant relationship between the additional items and having previous psychological history. For the participants from the foster homes, P-value was (0.00); as the participants who answered "Yes" had higher mean (2.79) than the participants who answered "No" (2.24). For the participants who resided with their biological parents in the community, the P-value was

(0.02) as the participants who answered “Yes” had higher mean (2.8) than the participants who answered “No” (2.27) as shown in table (5.26).

For the participants from the foster homes, there was no significant relationship between the additional items and gender, age, organization’s type, education, place of residence, having siblings in the same foster home, and years spent in the foster home. For the participants who resided with their biological parents in the community, the results revealed that there was no significant relationship between the additional items and gender, age, organization’s type, education, and place of residence as shown in table (5.26).

**Table (5.26): The relationship between the additional items and the independent variables for the participants from the foster homes and the adolescents who resided with their biological parents in the community**

	Foster homes (cases)			Community (controls)			
	Gender	Mean	Sig	Gender	Mean	Sig	
Additional Items	Male	2.37	0.69	Male	2.21	0.06	
	Female	2.43		Female	2.54		
	<b>Organizational type</b>						
	SOS/Bethlehem	2.3	0.3	SOS/Bethlehem	2.18	0.14	
	ICS/Hebron	2.48		ICS/Hebron	2.43		
	<b>Age</b>						
	From 13 to less than 15 years	2.48	0.18	From 13 to less than 15 years	2.31	0.23	
	From 15 to less than 18 years	2.67		From 15 to less than 18 years	2.62		
	<b>Previous psychological history</b>						
	Yes	2.79	0.00	Yes	2.8	0.02	
	No	2.24		No	2.27		
	<b>Education</b>						
	Primary	2.44	0.44	Primary	2.31	0.54	
	Secondary	2.28		Secondary	2.43		
	<b>Place of residence</b>						
	Village	2.71	0.92	Village	2.64	0.6	
	Camp	2.49		Camp	2.31		
	City	2.5		City	2.43		
	<b>Siblings</b>						
	Yes	2.5	0.1	No	2.1		
	No	2.1					
	<b>Years spent in the foster home</b>						
	Between 1 to 3 years	2.73	0.74	More than 5 years	2.41		
	More than 5 years	2.41		Less than 1 year	2.77		
	Less than 1 year	2.77		Between 3 to 5 years	2.61		
	Between 3 to 5 years	2.61					

## **5.5. Section four: The results of the regression analysis for the PedsQL and the Psychological problems**

For the quality of life of the participants from the foster homes, the regression analysis showed there were statistical significant relationships between the physical domain and organizational type (0.008) and years spent in the organization (from 1-3 years) (0.019). For the emotional domain, it showed a statistically significant relationship between the emotional domain and having siblings in the same organization (0.007). For the social domain, it also showed a statistically significant relationship between the social domain and having siblings in the same organization (0.043). For the school domain, there were statistically significant relationships between the school domain and organizational type (0.004) and years spent in the organization (from 1-3 years) (0.001) as seen in tables (5.27), (5.28), (5.29), and (5.30).

For the participants who resided with their biological parents in the community, the regression results showed that there were statistically significant relationships between the physical domain and organizational type (0.039) and having previous psychological history (0.001). For the emotional domain, it showed that there were statistically significant relationships between the emotional domain and gender (0.026) and having previous psychological history (0.010). For the social domain, there was a statistically significant relationship between the social domain and having previous psychological history (0.025). For the school domain, there were statistically significant relationships between the school domain and organizational type (0.033) and living in camps (0.008) as shown in tables (5.27), (5.28), (5.29), and (5.30).

**Table (5.27): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (physical domain and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	.219	.180	.120	1.216	.227
		Age	.462	.317	.130	1.457	.148
		Organization	-.566	.208	-.308	-2.726	<b>.008</b>
		Village	.096	.200	.049	.481	.632
		Camp	.119	.155	.076	.769	.444
		Less than 1 year	-.291	.302	-.101	-.961	.339
		From 1-3 years	-.311	.130	-.262	-2.393	<b>.019</b>
		From 3 to less than 5 years	.013	.093	.015	.137	.891
		Educational level	.249	.214	.113	1.163	.248
		Siblings in organization	.276	.219	.131	1.263	.210
		Previous psychological history	-.150	.197	-.074	-.758	.450
Controls	1	Gender	-.105	.133	-.068	-.786	.434
		Age	.111	.155	.073	.712	.478
		Organization	-.341	.164	-.221	-2.084	<b>.039</b>
		Village	-.002	.212	-.001	-.011	.991
		Camp	.297	.169	.158	1.753	.082
		Educational level	-.021	.167	-.012	-.128	.898
		Previous psychological history	.621	.177	.315	3.501	<b>.001</b>

**Table (5.28): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (emotional domain and other independent variables)**

Living place	Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
			B	Std. Error	Beta		
Cases	1	Gender	-.100	.201	-.051	-.500	.618
		Age	-.126	.135	-.091	-.930	.354
		Organization	-.326	.231	-.163	-1.409	.162
		Village	.186	.223	.088	.835	.406
		Camp	-.051	.172	-.030	-.299	.766
		Less than 1 year	-.135	.337	-.043	-.400	.690
		From 1-3 years	-.238	.145	-.184	-1.644	.104
		From 3 to less than 5 years	.005	.104	.006	.053	.958
		Educational level	-.030	.239	-.012	-.124	.902
		Siblings in organization	.671	.244	.291	2.752	<b>.007</b>
		Previous psychological history	.297	.220	.135	1.351	.180
Controls	1	Gender	-.392	.174	-.199	-2.259	<b>.026</b>
		Age	-.433	.310	-.135	-1.395	.166
		Organization	-.204	.216	-.101	-.946	.346
		Village	-.261	.282	-.084	-.926	.356
		Camp	.308	.221	.128	1.393	.166
		Educational level	-.137	.219	-.061	-.624	.534
		Previous psychological history	.614	.235	.242	2.616	<b>.010</b>

**Table (5.29): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (social domain and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	.358	.206	.173	1.740	.085
		Age	.083	.337	.024	.247	.806
		Organization	-.430	.237	-.206	-1.812	.073
		Village	.175	.229	.079	.764	.447
		Camp	-.069	.177	-.039	-.389	.698
		Less than 1 year	.460	.346	.140	1.330	.187
		From 1-3 years	.102	.148	.076	.690	.492
		From 3 to less than 5 years	.005	.106	.005	.048	.962
		Educational level	.436	.245	.173	1.779	.078
		Siblings in organization	.513	.250	.213	2.054	.043
		Previous psychological history	.027	.226	.012	.118	.906
Controls	1	Gender	-.001	.189	.000	-.004	.997
		Age	.281	.221	.136	1.272	.206
		Organization	-.259	.234	-.122	-1.109	.270
		Village	.339	.306	.103	1.106	.271
		Camp	.161	.240	.063	.669	.505
		Educational level	-.036	.237	-.015	-.150	.881
		Previous psychological history	.580	.255	.216	2.278	<b>.025</b>

**Table (5.30): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (school domain and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	.372	.220	.168	1.690	.094
		Age	.068	.363	.018	.187	.852
		Organization	-.744	.254	-.332	-2.929	<b>.004</b>
		Village	.065	.245	.027	.264	.792
		Camp	.151	.189	.080	.801	.425
		Less than 1 year	-.252	.370	-.072	-.680	.498
		From 1-3 years	-.409	.159	-.283	-2.577	<b>.011</b>
		From 3 to less than 5 years	-.198	.114	-.187	-1.745	.084
		Educational level	.150	.262	.056	.573	.568
		Siblings in organization	.163	.267	.063	.609	.544
		Previous psychological history	-.299	.241	-.121	-1.239	.219
Controls	1	Gender	-.091	.203	-.040	-.447	.656
		Age	.520	.370	.127	1.405	.163
		Organization	-.543	.252	-.233	-2.153	<b>.033</b>
		Village	.101	.330	.028	.307	.760
		Camp	.700	.259	.250	2.707	<b>.008</b>
		Educational level	-.123	.256	-.048	-.482	.631
		Previous psychological history	.281	.274	.096	1.026	.307

Moreover, regression analysis was done for the BSI-53 as well. For the psychological problems of the participants from the foster homes, the regression results showed there wasn't any significant relationship between somatization and any other independent variable. For obsession-compulsive, there were statistically significant relationships between obsession-compulsive and gender (0.034) and organizational type (0.003). For interpersonal sensitivity, there were statistically significant relationships between interpersonal sensitivity and gender (0.035), organizational type (0.033), and having previous psychological problems (0.047). For

depression, there was a statistically significant relationship between depression and organizational type (0.045). For anxiety, there was a statistically significant relationship between anxiety and organizational type (0.019). For hostility, there was a statistically significant relationship between hostility and years spent in the organization (1-3 years) (0.01). For phobic anxiety, there were statistically significant relationships between phobic anxiety and gender (0.023), organizational type (0.00), and having previous psychological history (0.019). For paranoid ideation, there were statistically significant relationships between paranoid ideation and gender (0.016), organizational type (0.002), and having previous psychological history (0.032). For psychoticism, there wasn't any significant relationship between psychoticism and any independent variable as shown in tables (5.31), (5.32), (5.33), (5.34), (5.35), (5.36), (5.37), (5.38), and (5.39).

For the participants who resided with their biological parents in the community, the regression results showed that there were statistically significant relationships between somatization and living in camps (0.033) and having previous psychological history (0.019). For obsession-compulsive, there was a statistically significant relationship between obsession-compulsive and having previous psychological history (0.044). For interpersonal sensitivity, there were statistically significant relationships between interpersonal sensitivity and organizational type (0.013), living in camps (0.019), and having previous psychological problems (0.001). For depression, there were statistically significant relationships between depression and living in camps (0.022) and having previous psychological history (0.00). For anxiety, there were statistically significant relationships between anxiety and gender (0.007), and having previous psychological history (0.008). For hostility, there were statistically significant relationships between hostility and living in camps (0.007), and having previous psychological history (0.014). For phobic anxiety, there were statistically significant relationships between phobic anxiety and gender (0.024), living in camps (0.025), and having previous psychological history (0.00). For paranoid ideation, there were statistically significant relationships between paranoid ideation and living in camps (0.003), and having previous psychological history (0.00). For psychoticism, there were statistically significant relationships between psychoticism and having previous psychological history (0.00) as shown in tables (5.31), (5.32), (5.33), (5.34), (5.35), (5.36), (5.37), (5.38), and (5.39).

**Table (5.31): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (somatization and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.187	.154	-.121	-1.211	.229
		Age	.219	.177	.114	1.235	.219
		Organization	-.120	.178	-.077	-.675	.501
		Village	-.258	.172	-.156	-1.505	.136
		Camp	-.081	.132	-.061	-.611	.542
		Less than 1 year	-.013	.259	-.005	-.049	.961
		From 1-3 years	-.087	.111	-.087	-.785	.434
		From 3 to less than 5 years	.127	.080	.172	1.593	.115
		Educational level	.357	.184	.191	1.944	.055
		Siblings in organization	-.157	.187	-.088	-.838	.404
		Previous psychological history	.238	.169	.139	1.410	.162
Controls	1	Gender	-.151	.135	-.100	-1.120	.265
		Age	-.263	.240	-.107	-1.096	.275
		Organization	-.190	.166	-.124	-1.148	.254
		Village	.040	.215	.017	.188	.851
		Camp	.370	.171	.200	2.160	<b>.033</b>
		Educational level	-.037	.169	-.021	-.216	.830
		Previous psychological history	.427	.179	.219	2.377	<b>.019</b>

**Table (5.32): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (obsession-compulsive and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.331	.154	-.215	-2.146	<b>.034</b>
		Age	.017	.237	.007	.072	.943
		Organization	-.539	.178	-.346	-3.035	<b>.003</b>
		Village	.014	.171	.008	.081	.936
		Camp	.052	.132	.040	.396	.693
		Less than 1 year	-.157	.259	-.064	-.606	.546
		From 1-3 years	.019	.111	.019	.171	.865
		From 3 to less than 5 years	-.032	.080	-.043	-.402	.689
		Educational level	.132	.184	.071	.720	.473
		Siblings in organization	-.009	.187	-.005	-.046	.963
		Previous psychological history	-.065	.169	-.038	-.385	.701
Controls	1	Gender	-.166	.133	-.113	-1.247	.215
		Age	.164	.175	.087	.934	.352
		Organization	-.262	.164	-.175	-1.599	.113
		Village	.148	.212	.066	.698	.486
		Camp	.320	.169	.177	1.894	.061
		Educational level	-.306	.167	-.184	-1.831	.070
		Previous psychological history	.360	.177	.190	2.034	<b>.044</b>

**Table (5.33): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (interpersonal sensitivity and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.383	.179	-.210	-2.142	<b>.035</b>
		Age	.072	.218	.029	.330	.742
		Organization	-.446	.206	-.242	-2.167	<b>.033</b>
		Village	.096	.199	.049	.484	.629
		Camp	.136	.153	.087	.888	.377
		Less than 1 year	.377	.300	.131	1.257	.212
		From 1-3 years	-.068	.129	-.057	-.526	.600
		From 3 to less than 5 years	.048	.092	.055	.518	.605
		Educational level	.113	.213	.051	.529	.598
		Siblings in organization	.419	.217	.198	1.934	.056
		Previous psychological history	.394	.196	.195	2.014	.047
Controls	1	Gender	-.183	.166	-.094	-1.107	.271
		Age	-.157	.295	-.049	-.532	.596
		Organization	-.513	.204	-.259	-2.513	.013
		Village	-.140	.264	-.047	-.532	.596
		Camp	.500	.211	.208	2.372	.019
		Educational level	.039	.208	.018	.187	.852
		Previous psychological history	.764	.221	.303	3.462	<b>.001</b>

**Table (5.34): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (depression and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.254	.172	-.150	-1.475	.143
		Age	-.104	.250	-.039	-.416	.678
		Organization	-.404	.199	-.236	-2.031	<b>.045</b>
		Village	-.138	.192	-.076	-.720	.473
		Camp	-.021	.148	-.014	-.141	.888
		Less than 1 year	.000	.290	.000	-.002	.999
		From 1-3 years	-.048	.124	-.043	-.386	.700
		From 3 to less than 5 years	.046	.089	.057	.521	.604
		Educational level	.221	.205	.108	1.078	.284
		Siblings in organization	.137	.209	.070	.655	.514
		Previous psychological history	.260	.189	.138	1.376	.172
Controls	1	Gender	-.088	.140	-.054	-.629	.531
		Age	.303	.184	.147	1.645	.103
		Organization	-.108	.172	-.066	-.627	.532
		Village	-.108	.223	-.044	-.483	.630
		Camp	.413	.178	.208	2.316	<b>.022</b>
		Educational level	-.181	.176	-.099	-1.025	.308
		Previous psychological history	.680	.187	.326	3.646	<b>.000</b>

**Table (5.35): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (anxiety and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.043	.151	-.029	-.284	.777
		Age	.300	.189	.141	1.591	.115
		Organization	-.413	.174	-.274	-2.378	<b>.019</b>
		Village	.218	.168	.137	1.301	.196
		Camp	-.016	.129	-.012	-.122	.903
		Less than 1 year	-.312	.253	-.132	-1.231	.221
		From 1-3 years	-.116	.109	-.119	-1.063	.290
		From 3 to less than 5 years	-.001	.078	-.001	-.011	.991
		Educational level	.228	.180	.126	1.272	.207
		Siblings in organization	.211	.183	.122	1.153	.252
		Previous psychological history	.312	.165	.188	1.886	.062
Controls	1	Gender	-.391	.143	-.234	-2.727	<b>.007</b>
		Age	-.156	.256	-.057	-.611	.543
		Organization	-.040	.177	-.024	-.229	.819
		Village	-.118	.229	-.046	-.516	.607
		Camp	.270	.182	.131	1.478	.142
		Educational level	.060	.180	.031	.330	.742
		Previous psychological history	.513	.191	.238	2.686	<b>.008</b>

**Table (5.36): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (hostility and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.074	.173	-.044	-.426	.671
		Age	.028	.183	.016	.154	.878
		Organization	-.374	.200	-.223	-1.872	.064
		Village	-.135	.193	-.076	-.700	.486
		Camp	.062	.149	.043	.415	.679
		Less than 1 year	-.230	.291	-.088	-.791	.431
		From 1-3 years	-.327	.125	-.301	-2.616	<b>.010</b>
		From 3 to less than 5 years	-.134	.089	-.168	-1.496	.138
		Educational level	.031	.206	.016	.152	.879
		Siblings in organization	.050	.210	.026	.239	.811
		Previous psychological history	-.089	.190	-.048	-.467	.642
Controls	1	Gender	-.147	.156	-.083	-.940	.349
		Age	-.234	.279	-.081	-.837	.404
		Organization	-.106	.193	-.059	-.552	.582
		Village	-.092	.249	-.034	-.368	.713
		Camp	.545	.199	.250	2.737	<b>.007</b>
		Educational level	-.244	.197	-.122	-1.238	.218
		Previous psychological history	.519	.208	.227	2.491	<b>.014</b>

**Table (5.37): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (phobic anxiety and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.364	.158	-.219	-2.306	.063
		Age	-.089	.104	-.077	-.860	.392
		Organization	-.692	.182	-.412	-3.808	<b>.000</b>
		Village	.251	.175	.141	1.431	.156
		Camp	.129	.135	.090	.950	.344
		Less than 1 year	-.163	.265	-.062	-.617	.539
		From 1-3 years	-.009	.114	-.009	-.081	.935
		From 3 to less than 5 years	.010	.081	.012	.120	.904
		Educational level	.021	.188	.010	.110	.913
		Siblings in organization	.327	.191	.169	1.707	.091
		Previous psychological history	.413	.173	.224	2.392	<b>.019</b>
Controls	1	Gender	-.306	.134	-.185	-2.282	<b>.024</b>
		Age	.350	.157	.213	2.237	.057
		Organization	-.069	.165	-.041	-.419	.676
		Village	.184	.214	.073	.860	.391
		Camp	.389	.171	.191	2.278	<b>.025</b>
		Educational level	-.106	.169	-.056	-.626	.533
		Previous psychological history	.649	.179	.304	3.632	<b>.000</b>

**Table (5.38): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (paranoid ideation and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.358	.146	-.238	-2.448	<b>.016</b>
		Age	-.111	.100	-.102	-1.111	.269
		Organization	-.549	.168	-.361	-3.262	<b>.002</b>
		Village	.090	.162	.056	.555	.580
		Camp	.001	.125	.000	.005	.996
		Less than 1 year	.081	.245	.034	.329	.743
		From 1-3 years	-.056	.105	-.057	-.534	.595
		From 3 to less than 5 years	.002	.075	.003	.030	.976
		Educational level	.094	.174	.051	.539	.591
		Siblings in organization	.150	.177	.086	.844	.401
		Previous psychological history	.349	.160	.209	2.182	<b>.032</b>
Controls	1	Gender	-.170	.129	-.110	-1.316	.191
		Age	-.384	.230	-.152	-1.670	.098
		Organization	-.106	.159	-.068	-.668	.505
		Village	-.060	.206	-.025	-.291	.772
		Camp	.493	.164	.260	3.005	.003
		Educational level	-.150	.162	-.086	-.923	.358
		Previous psychological history	.647	.172	.325	3.762	<b>.000</b>

**Table (5.39): Regression analysis for the participants from the foster homes and the adolescents who resided with their biological parents in the community (psychoticism and other independent variables)**

Living place	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Cases	1	Gender	-.091	.151	-.062	-.604	.548
		Age	-.122	.215	-.053	-.568	.571
		Organization	-.280	.173	-.189	-1.613	.110
		Village	.112	.167	.072	.671	.504
		Camp	.143	.129	.113	1.105	.272
		Less than 1 year	.256	.253	.110	1.014	.313
		From 1-3 years	.007	.108	.007	.065	.948
		From 3 to less than 5 years	-.034	.078	-.049	-.440	.661
		Educational level	.150	.179	.084	.838	.404
		Siblings in organization	.058	.183	.034	.319	.750
		Previous psychological history	.309	.165	.190	1.877	.064
Controls	1	Gender	-.140	.121	-.100	-1.164	.247
		Age	-.052	.093	-.053	-.560	.577
		Organization	-.071	.149	-.050	-.477	.634
		Village	-.011	.192	-.005	-.055	.956
		Camp	.101	.153	.059	.659	.511
		Educational level	-.216	.152	-.136	-1.421	.158
		Previous psychological history	.582	.161	.323	3.622	<b>.000</b>

**Multi-variate regression model: Final model**

To compare the results between study controls for all variables that showed significant differences in the separate models, a binary regression analysis was carries out.

The table below showed the variables that were statistically significant in the regression model. The participants who answered “Yes” in the current study for the question “having previous psychological history” were shown increased the risk by 53 times compared to those who answered “No” in the same question. Moreover, the table showed that the risk is lower than the males compared to females. Also, the participants from the village were at risk to develop psychological problems and had lower quality of life by 5.1 times compared to the participants from the camp, and increased risk for the participants from the city by 3.8 times than the participants from the camps. In conclusion, the quality of life and the psychological problems did not show statistically significance relationship as seen in table (5.40).

**Table (5.40): Binary regression analysis; final model**

		Sig.	Adjusted odds ratio	95% CI.for EXP(B)	
				Lower	Upper
Step 3 <sup>c</sup>	Having psychological history	.001			
	Yes	.000	53	6.424	449.960
	No	.001	28	3.653	223.899
	No answer \do not know		1		
	Gender Male	.021	0.5	.277	.902
	Female		1		
	Origin place of residence	.000			
	village	.000	5.112	2.289	11.419
	City	.029	3.898	1.154	13.172
	Camp		1		
Step 1	Quality of life	0.24	1.34	0.81	2.23
	Psychological problems	0.40	0.76	0.41	1.43

Finally, Pearson's test was used to test the correlation between the psychological problems and the quality of life. Pearson's test showed that there was a significant correlation ( $p < 0.05$ ) between the quality of life and the psychological problems. The relationship was negative and somewhat weak with  $r$  value of (-.18) as shown in table (5.41).

**Table (5.41): The relationship between QOL and psychological problems (Pearson's correlation):**

		Quality of life	Psychological problems
Quality of life	Pearson Correlation	1	-.18
	Sig. (2-tailed)		<b>.01</b>
	N	229	

Also, Pearson's test was used to test the correlation between the psychological problems and the four domains of the quality of life. The strongest relationship between the QOL and the psychological problems was for the emotional domain (Pearson's correlation=0.70), then the social domain (Pearson's correlation=0.57) and the school domain (Pearson's correlation=0.52). The weakest relationship between the psychological problems and the QOL was for the physical domain (Pearson's correlation=0.50) as shown in table (5.42).

**Table (5.42): The relationship between the four domain of QOL and psychological problems (Pearson's correlation):**

Domain	Psychological problems	
Physical domain	Pearson Correlation	0.50
	Sig. (2-tailed)	0.00
	N	229.00
Emotional domain	Pearson Correlation	0.70
	Sig. (2-tailed)	0.00
	N	229.00
Social domain	Pearson Correlation	0.57
	Sig. (2-tailed)	0.00
	N	229.00
School domain	Pearson Correlation	0.52
	Sig. (2-tailed)	0.00
	N	229.00

## 5.6. Summary

- The overall mean quality of life for the participants from the foster homes was 65.7 and for the participants who resided with their biological parents in the community was 67.8.
- Four psychological problems out of nine had higher mean scores for the participants from the foster homes compared to the participants from the community (interpersonal-sensitivity, phobic anxiety, paranoid ideation, and psychoticism). Obsession-compulsive and hostility had higher mean among the participants from the community compared to the participants from the foster homes. Somatization, depression, and anxiety had the same mean scores for both groups.
- In addition, for the quality of life, the regression results showed that the adolescents who lived in the foster homes had significant relationships between the quality of life and organizational type (0.007) and the adolescents who had siblings in the same institution (0.041). For the adolescents who resided with their biological parents in the community, there was a significant relationship between the quality of life and the organizational type (0.0006).
- For the psychological problems, the regression results showed that the adolescents who lived in the foster homes had significant relationships between the psychological problems and gender (0.034), organizational type (0.001), and having previous psychological history (0.049). For the adolescents who resided with their biological parents in the community, there were significant relationships between gender (0.014) and having previous psychological history (0.009).
- Additionally, the Pearson's test revealed weak statistically significant relationship between quality of life and the psychological symptoms. The strongest relationship was for the emotional domain and the weakest one was the physical one.

The next chapter discussed the findings of the current study.

## CHAPTER FOUR

### DISCUSSION

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#### 6.1 Introduction

This chapter discussed the major findings of the current study and the interpretation of its findings in relation to previously conducted studies found in literature review. This study aimed to assess quality of life and psychological problems among adolescents aged between 13-18 years who lived in the foster homes in Bethlehem and Hebron cities.

The participants' characteristics and their responses to the questionnaire items were discussed. Also, the relationship between dependent and independent variables were highlighted by using many statistical analyses tests such as ANOVA test, and T-test. The results of these statistical tests are discussed in each of the following sections:

- Section one: The characteristics of the participants.
- Section two: Quality of life and psychological problems.
- Section three: The relationship between dependent and independent variables.
- Section four: Limitations and recommendations.

#### 6.2. Section one: The characteristics of the participants.

As the study targeted age group ranged between 13 to 18 years old, the findings showed that the majority of the participants from the foster homes (76.6%) were aged between 13-15 years old, and 23.3% were aged from more than 15 years old to less than 18 years old. One study related to children and adolescents who lived in the 25 institutions/foster homes in the West Bank showed that 8.2% were under the age of six years old, 44.1% were aged between 2-12 years old, and 47.7% of them were aged between 13-17 years old (PMSA, 2003).

In addition, the current study showed that 58.9% of the participants from the foster homes were from cities, 9.3% were from camps and the rest were from rural areas. According to the PCBS (2014), around 68% of the children who lived in foster homes were from cities and around one-third of them were from rural and camp areas. Also, it indicated that some of the children who lived in camps, moved to live in the foster homes to get the chance to go to school because the access to education is difficult for them due to poverty and absence of schools (PCBS, 2014).

Furthermore, the study showed that 69.8% of the participants from the foster homes had their siblings in the same foster home. These results were supported by Simsek and Erol (2007) who showed in their study that 66.4% of children and adolescents who lived in the foster homes had siblings in the same placement and the same school as well.

Also, 52.6% of adolescents in the current study reported that they spent more than five years in the foster home and 16.4% of them were between one to three years. Carbone and Sawyer (2007) showed that 48% of children and adolescents spent more than 6 years in the foster home, 18% of children and adolescents were in the placements at the time of the study, 25% were for 1–3 years, 22% were for 4–6 years, and 5% of them had been in care for less than one year.

### **6.3 Section two: Quality of life and psychological problems**

For the quality of life, the findings revealed a good quality of life in general for the participants from the foster homes and the participants who resided with their biological parents in the community. This might be because children and adolescents who lived in the foster care settings were in contact with their families either by visiting them at their placements regularly or going with them within every Friday or every religious holiday (Al-Ja'bari, 2016; Qamhawi, 2016). However, the participants who resided with their biological parents in the community had better quality of life than the participants from the foster homes. For example, the statistical analysis revealed that the participants from the foster homes had a mean value of 65.7 for the overall quality of life compared with 67.8 as a mean value for the participants who resided with their biological parents in the community. Nelson et al. (2014) revealed that the mean PedsQL total score for the adolescents who lived in the foster homes was 80.8 which was

significantly lower than the 83.65 mean reported on the same measure by the general population. Also, Carbone et al. (2007) reported poorer general health for children and adolescents in home-based foster care than adolescents in the general community, and Jozefiak and Kaye (2015) reported that the adolescents who lived in the foster care settings had poorer QoL compared to the general population in terms of the physical health, emotional, social, school domains, and self-esteem. On the other hand, Poletto and Koller (2011) revealed that the well-being and satisfaction of the institutionalized children and adolescents did not differ from those who were living with their families regarding life satisfaction that contained six domains (self, compared self, non-violence, family, friendship, school). This might be because some children and adolescents experienced neglect, daily physical abuse, and inadequate environmental stimulation while living with their biological parents, therefore, those adolescents moved to an area where they can find the stability of their development and relationship (Nelson et al., 2014). In addition, Carbone et al. (2007) indicated that children and adolescents from the foster homes experienced more limitations in daily activities when they where lived at their parents' houses due to both emotional and behavioral problems.

Also, the findings showed that the participants who resided with their biological parents in the community rated their quality of life higher than the participants from the foster homes in three domains of the quality of life (physical, emotional, and school domains). For example, the best domain for both groups was the physical domain; the mean of the physical domain for the participants from the foster homes was 76.4 compared to 79.2 for the participants who resided with their biological parents in the community. This might be because of the environmental stability of the foster home placement which could be an active help and provided therapeutic intervention for some adolescents (Rosen et al., 2015). Furthermore, physical appearance and physical health were considered to be more important during adolescence, they could spend hours to have their own style, to do physical activity (join a football or tennis team), and to have proper nutrition (Douchis et al., 2001). Also, it indicated that adolescents from the foster care settings had an exceptional environment for physical activities so as the adolescents in the foster care should participate in sport activities every day; thus, it could increase their physical level. For the participants who lived with their two-biological-parent families, particularly those in the general population, tend to have greater access to economic resources and an

access to health which help their children by providing material resources, engaging in caregiving activities, formulating parenting practices, transferring knowledge, maintaining the home environment, and supplying other social and economic supports (Langton and Berger, 2011). These results were supported by Yendork and Somhlaba (2014) who found that the physical and the social domains ranked the best QoL domains for both groups when they used the WHOQOL-BREF assessment; where the participants from the foster care and orphanages rated their physical domain as the same range as for the participants from the general population. However, Jozifiak and Kayed (2015) reported that approximately 80% of the adolescents from the foster care settings had pain in any location that affected their daily functioning, and Turney and Wildeman (2016) revealed that the adolescents from the foster homes reported negative physical health conditions and activity limitations; which did not support the results of the current study.

Moreover, in the current study, the participants from both groups showed no difference in social domain and it was one of the best domains of the QoL; the mean score for the social domain for the participants from the foster homes was 75.7 compared to 75.5 for the participants who resided with their biological parents in the community. These results were supported by Yendork and Somhlaba (2014) who found no significant difference between the adolescents who lived in foster care settings and other participants from the general population in their social relationships at  $p$ -value (0.17). This can be explained by the fact that the adolescents who lived in foster care settings and who remained in contact with a parent or a parental figure considered to have a protective factor to obtain social support and to improve their competencies in the setting (Masten and Coatsworth, 1998; Rutter, 1990; Werner and Smith, 1982). Another protective factor against social problems was the regular contact between school teachers and the foster homes' staff; as the collaboration between them can decrease social problems and other psychological problems as well (Jackson, 1994; Al-Ju'bari, 2016). Also, coping strategies can be another protective factor which characterized by seeking social support from the social environment around the adolescents who lived in foster care settings (Cluver et al., 2009; House, 1986; Tyler, 2006). However, Jozifiak and Kayed (2015) reported that the adolescents who lived in foster care settings had poorer social domain compared to the general population which did not support the results of the current study.

There was some differences for emotional domain between the adolescents who lived in the foster care settings compared to the adolescents who resided with their biological parents in the community but it was considered high for both groups; the mean score for the emotional domain for the participants from the foster homes was 58.4 compared to 60.1 for the participants who resided with their biological parents in the community. Gearing and Schwalbe (2015) and Ehrlinch et. al (2011) suggested that the caregivers in the foster homes might have greater understanding of adolescents' emotional experiences through healthy open communication when they were securely attached; thus, these factors might help the adolescents who lived in the foster homes to overcome their emotional problems, consequently, they can feel satisfied. In addition, American Psychological Association (2002) and Al-Ja'bari (2016) indicated that professionals played an important role in supporting the adolescents in the foster homes to enhance their self-esteem by helping them to face the problem instead of avoiding it; thus, it could involve such activities as teaching the youth interpersonal or problem-solving skills, role-playing an awkward conversation, providing information and resources, or it might simply by providing ongoing encouragement and support in facing feared situations. Moreover, some adolescents had the ability to manage and demonstrate positive feelings as it considered a protective personal characteristic (Poletto and Koller, 2011).

For the participants who resided with their biological parents in the community, their parents' role played an important function in their lives; as the attachment security in adolescence exerted precisely the same effect on development as it was in early childhood especially for the emotional competence. For example, young children require close proximity and physical availability of parents to provide comfort when they were distressed, while adolescents did not need the same degree of proximity and could derive comfort from knowing their parents are supportive even when they are not close enough. Parental sensitivity and attachment continued to be essential in maintaining attachment security during adolescence, especially in the domain of autonomy needs. This could explain the percentages' difference of satisfaction of the participants who resided with their biological parents in the community with the emotional domain compared to the participants who lived in the foster homes (Moretti and Peled, 2004).

On the other hand, in the current study, the participants in the foster homes rated their emotional domain as lower than the participants who resided with their biological parents in the community. This emotional dissatisfaction among adolescents who lived in foster care settings can be developed from several factors such as stigmatization; as this triggered negative attitude towards the children and the adolescents who lived in the foster care compared to others who lived in the general population. Thus, it can influence the emergence of emotional and behavioral problems especially when they were labeled as abnormal (Link and Phelan, 2001; Ritsher et al., 2003; Rosen et al., 2000; Jozefiak and Kayed, 2015). Lack of supporting caregiving, poor problem solving abilities, the absence of the family atmosphere, and the difficulties in their early years of their lives compared to their peers who resided with their biological parents in the community can be other factors of emotional dissatisfaction (Simsek and Erol, 2010; Chipunqu and Bent-Goodley, 2004; Akay et. al, 2006). For the participants who resided with their biological parents in the community, Pathak et al. (2011) reported that adolescents who could not rely on their parents while took support from their friends and siblings showed more emotional problems as they experienced insecure bonding with the parents especially with the mother. Moreover, lack secure identities, physical abuse, family discord, academic performance, and punishment could be other factors.

Consequently, in the current study, the adolescents from the foster homes rated their school domain lower than the participants who resided with their biological parents in the community; the mean score for the school domain for the participants from the foster homes was 52.2 compared to 58 for the participants who resided with their biological parents in the community. These results were supported by Chipunqu and Bent-Goodley (2004) and Richter et al. (2010) who reported that the adolescents in general who grown up in limited recourse settings were at risk to have lower educational attainment, poor qualification, poor educational stimulation, and decreased achievements. Also, the adolescents who lived in the foster homes and who experienced minimal or no contacts with their parents were at risk to experience poor school performance and to develop depressive symptoms as a result of material and emotional deprivation (Richter et al., 2009).

In addition, further assessment was done to assess the participants' highest and lowest mean for all questions in each domain of the quality of life. For example, for the physical domain,

findings showed that the lowest mean (they didn't have problems with) for both groups was for the item "it is hard for me to walk more than one block" (mean for both groups=1.5). These findings were due to the physical stimulation that the adolescents from the foster homes were involved in their physical environment such as doing simple household tasks inside and outside the homes; as it could increase their physical level (Karadag and Ozcebe, 2011; Al-Ja'bari, 2016).

Also, for the emotional domain, the highest mean value for both groups was for the item "I feel angry"; as they considered this item as a problem (the mean for the participants from the foster homes=3.1, and the mean for the participants who resided with their biological parents in the community=3). Jones et al. (2014) reported that during adolescence, adolescents could suffer from negative effect in their lives, which might create difficulty in coping or managing feelings or moods, or might create overwhelming feelings of anxiety and anger. These crises could be felt more in teens than in adults due to their emotional, psychological, spiritual and physiological stages of development. Also, this stage might become a struggle for some adolescents, as they had difficulty understanding the changes their bodies are going through or had not achieved the sense of self-identity they need to move forward (Jones et al., 2014). For example, when the adolescents struggled with finding a unique identity when they were lived in the foster homes, they might create negative feelings and emotions (Al-Ja'bari, 2016).

Moreover, within the same domain, the item "I worry about what will happen to me" had a high mean value for both groups (the mean for the participants from the foster home=2.9, and the mean for the participants who resided with their biological parents in the community=2.8); as they considered this item as a problem. Schutz and Sarriera (2014) reported that the adolescents who lived in the foster homes reported low satisfaction with what might happen to them in the future; thus, passing by institutional care situation implied a stigma of exclusion over their lives. Also, the traumatic experiences of the past and the rare opportunities for these adolescents might affect their future expectations. For the participants who resided with their biological parents in the community, the losing of the support of parents and family as they become more independent, taking on the responsibilities of adulthood, and personal attributes (such as self-confidence) might affect their future vision. Also, students with a weak and

negative image about themselves are more likely to think about the future in negative terms and to worry about the future life (Pickhardt, 2010; Bogdan, 2014).

However, the lowest mean value for both groups was for the item “I feel afraid or scared” as they didn’t consider this item as a problem. These results were supported by Simsek and Erol (2007) when the participants of both groups reported that “feeling afraid of something or of making mistakes” did not consider a problem. These protective factors related to family, social support, and intellectual capabilities in general. In addition, the collaboration between the foster care settings’ staff and school teachers is fundamental to decreasing such these problems (Simsek and Erol, 2007).

Also, for the social domain, the highest mean value was for the item “I have trouble getting along with other teens” for both groups (mean=2). Simsek and Erol (2007) reported that the adolescents from the foster homes had difficulty getting along with the adolescents who resided with their biological parents in the community and vice versa, and each group preferred to be separated from the other. Adolescents from the foster homes were avoided being with the other participants who resided with their biological parents in the community because they felt different and abnormal and they were afraid of the stigma, therefore, they afraid to orient themselves toward the other group and to make new friends. Thus, being accepted by peers has significant implications for adjustment during adolescence and into adulthood. So further interventions should be done to help children in foster homes to overcome this problem.

For the school domain, the highest mean for the participants from the foster homes was for the item “it is hard for me to pay attention in class” (mean=3.1); as they had more attention problems than the participants who resided with their biological parents in the community. These results were supported by Simsek et al. (2007) who showed that the adolescents from the foster care settings couldn’t concentrate and couldn’t pay attention for an extended period of time. Moreover, Turney and Wildeman (2016) reported that children and adolescents who placed in foster care had greater attention problems compared with children who lived with both or single parents.

These results might be due to the verbal and the physical violence in the school environment (Brown, 2009). These forms of violence were associated with poor school performance and

lead to developing some problems and difficulties that lead to daily stresses such as poor attention at the classroom (Kaminer and Hardy, 2013). Also, being separated from their families could be related to attention problems as well. Parents' involvement could support their adolescents' educational progress through the quality and frequency of communication with teachers as well as participation in school functions and activities. They might enhance academic achievement indirectly by promoting adolescents' motivation and persistence in challenging educational tasks (Nokali et al., 2010). Moreover, Wiik et al. (2011) had indicated that genetic polymorphisms were related to attention problems following early institutional care. Also, for the participants who resided with their biological parents in the community, the highest mean value was for q2 (I forget things) (mean=2.68). Kaminer and Hardy (2013) showed that adolescents experienced different lapses during adolescence that could occur within their brains due to sorting, storing, and recalling processes; thus, these conditions are normal as the organizational abilities normally improve as teens mature. Moreover, other conditions such as depression, sleeping problems, and attention problems could lead to forgetting things (Kaminer and Hardy, 2013).

Furthermore, in addition to the quality of life, psychological problems were assessed in the current study by using the Brief Symptom Inventory-53 (BSI-53), and the findings showed that interpersonal sensitivity, phobic anxiety, paranoid ideation, and psychoticism had higher scores among the participants from the foster homes, while the participants who lived with their biological parents in the community had higher scores of obsession-compulsive and hostility symptoms. Also, somatization, depression, and anxiety had the same score level for both groups.

For example, the results showed that the participants who resided with their biological parents in the community had high level of OCD symptoms (81.8% for the adolescents from the foster homes and 75.8% for the adolescents from the community reported "never, almost never, and sometimes" had these symptoms; however, 18.2% for the participants from the foster homes and 24.2% for the participants who resided with their biological parents in the community reported "almost always and always"). Chandna (2014) revealed that the presentation of obsessions and compulsions is heterogeneous in children and adolescents and most of these differences are related to the developmental limitations of younger children compared to

adults. Moreover, there were some factors that could affect the presence of OCD such as cognitive, biological, environmental, genetic, and behavioral factors. Moreover, Qamhawi (2016) revealed that most of the adolescents who lived in the foster homes were not able to take decisions and getting things done about everyday life compared to the adolescents who lived with their biological parents in the community due to the rules of the institution; so the adolescents who lived in the community faced difficulties in taking different responsibilities as they became more mature than before.

In addition, for interpersonal sensitivity, both groups reported high scores of “never, almost never, and sometimes” had those symptoms (78.8% for the adolescents who lived in the foster homes and 79.3% for the adolescents who resided with their biological parents in the community). These results were supported by Qamhawi (2016), Simsek and Erol (2007), and Al-Ja’bari (2016) who revealed that adolescents who lived in the foster homes preferred to be with other adolescents and peers who also lived in the same foster homes to avoid stigmatization and inferiority to other adolescents who lived with their parents in the community. Thus, through those peer groups, the adolescents who lived in the foster homes were able to feel acceptable and likable from their peers, developing sense of identity, and providing powerful sources and self-conscious.

For hostility, 21.8% of the participants from the foster homes reported “always and almost always” had hostility symptoms compared to 24.6% for the participants who resided with their biological parents in the community. Attar-Schwartz (2009) mentioned that neglect of children and adolescents during adolescence period and puberty such as lack of care for their physical needs and a failure to provide consistent love and nurturance from their parents, might develop child and adolescent’s aggressiveness toward self, others, and objects around them. Also, aggressiveness might occur in adolescence period especially with adolescents who had low self-esteem. Thus, they tried to cover this up through aggression; this is particularly the case when they were among their peers. Moreover, there is an evidence that adolescents with depressed features were at high risk for hostility and aggressive behavior because depressed adolescents tend to attend selectively to the most negative features of events as it associated with unhealthy behaviors; thus, they tend to feel intense, irritated, and hostile (Weiss et al., 2005).

Moreover, some adolescents who lived with their biological parents engaged in unacceptable behaviors so they got punished from their parents for those behaviors, therefore, they were more likely to express their rejection through aggressive behavior either through getting into different arguments, or even through arguing with other peers at school; as this aggressive behavior might be a sign of helplessness and hopelessness. Furthermore, hostility symptoms might be acquired from the social environment (such as parents, friends, and relatives), or might be due to different developmental difficulties during childhood (Attar-Schwartz, 2009). Additionally, hostility symptoms might be due to the poor attachment relationship between the two individuals as it considered very essential for throughout the person's lifespan; as the functioning of the attachment styles related to psychosocial functioning (Kanbur et al., 2011).

In addition, in the current study, both groups had the same mean value for depression, anxiety, and somatization. For example, the current study showed that the participants from the foster homes and the participants who resided with their biological parents in the community nearby reported the same range of "never, almost never, and sometimes" when they were asked about depressive mood (82.9% and 82.5% respectively). This might be because that the adolescents who still had a contact with their families and relatives, appeared to have a protective impact on the development of depression because of the familial-emotional support and peer support at the same institution (Akay et al., 2006).

Another possible cause might be that the adolescents who lived in the foster homes were being supported through the psychological programs and interventions in the foster care settings that were done by the social workers and the psychologists, therefore, their depression level might be decreased. However, 17.1% of the participant from the foster homes reported depressive symptoms, and 17.5% of the participants who resided with their biological parents in the community reported the same depressed mood with no significant difference between them. Depression is common in the adolescence period because changes in their body balance of hormones might be involved in causing or triggering depression and is common among females more than males. However, Kanbur et al. (2011) showed in their study that depression and anxiety were significantly higher in adolescents living in the orphanage compared to those living with their families, whereas the somatization showed no significant difference between the two groups.

Akay et al. (2006) reported that further education correlated with lower depressive scores among the participants from the foster homes and from the general population as successful adaptation during adolescence began with positive experiences in school, as well as adaptation and challenge strength increased as they got more mature. Furthermore, Karadag and Ozcebe (2011) showed that physically active adolescents had the higher quality of life scores and the lower depression scores compared to those of their less active counterparts.

Also, adolescents might feel distressed irrespective of their parental status, as well as it might have resulted from their individual vulnerabilities (Yendork and Somhlaba, 2014). For the adolescents from the foster homes, depression might be occurred due to the group home services, quality of services, the process of delivering services, the effects of services on adolescents' functioning and transitioning to independent living, being committed to the standard living conditions, persistent turnover of staff members due to low salaries, and the adolescents' allowance of spending money (Green and Ellis, 2007). Therefore, availability of psychological therapy and counseling had become a significant concern for children and adolescents at schools.

For anxiety, the findings revealed no difference between both groups as the mean for both groups was (2.12) at a p-value of (0.95). For example, 84.8% of the participants from the foster homes reported "never, almost never, and sometimes" compared to 84.3% of the participants who resided with their biological parents in the community. However, Yendork and Somhlaba (2014), Damjanovic et al. (2011), and Turney and Wildeman (2016) reported that the adolescents who lived in foster care and residential care settings showed more anxiety symptoms than the participants from the general population. The difference might be because these researchers involved the participants who aged between 0-17 years old or 7-17 years old and the younger age group required close proximity and physical availability of parents to relate to them as a secure base, to protect them and provide their different needs, and to support their development process. Although the adolescents needed to be attached to their parents but they can feel supported by the presence of peer groups as a way of independence (Moretti and Peled, 2004). Also, being at schools for children and adolescents who lived in the foster homes together with children and adolescents who resided with their biological parents in the community might decrease the feelings of anxiety and depression.

In addition, the loss of parents during childhood had been considered as stressful and a risk factor for poor mental and psychological health. As they experienced lack physical, social and emotional support, a decline in educational attainment, instances of food insecurity, risky behaviors, inadequate health care, and poor psychological and mental health such as depression, anxiety and poor quality of life (Yendork and Somhlaba, 2014).

Also, for somatization, 88.9% of the participants from the foster homes reported that they “never, almost never, and sometimes” had somatic symptoms during their life time compared to 86.6% of the participants who resided with their biological parents in the community. These results were supported by Erol and Simsek (2007) when they showed that the participants from the foster homes and the adolescents who resided with their biological parents in the community had the same lower scores related to somatic symptoms and complaints. Also, they mentioned that being surrounded by a group of people either at the foster homes, family at home, or peers at school could enable the adolescents to participate actively with each other. Therefore, it could decrease the effect of the feeling of somatic symptoms (Erol and Simsek, 2010).

Moreover, the parents and the caregivers might manage the somatic symptoms of their children and adolescents as organic causes; consequently, they could not recognize that these symptoms were the beginning of a psychological illness (Deo et al., 2013). Moreover, Yendork and Somhlaba (2014) reported that the adolescents who lived in the foster care settings had a specific daily program using specific period of time to perform functionally while being in the institution compared to the adolescents who lived with their biological parents who might waste their time using the electronic devices during the day; as they might complain of some physical discomfort.

Additionally, in the current study, the participants who resided with their biological parents in the community showed a higher percentage (40%) for the item “feeling that most people cannot be trusted” of the paranoid ideation symptoms than the participants from the foster homes (37.7%). This might be because of that some adolescents might be able to trust more easily than others; and the nature of attachment to parents or caregivers affect the adolescents’ ability to trust other people (whether the attachment was secure or not secure), as these early

attachments provide a view of how adolescents see the world and people. Thus, the adolescents might not feel open and comfortable to share the difficult things with other people or adults if the child-parent relationship was weak. Moreover, the adolescents who lived with their biological parents might not find another person in the same home environment who had the same age and personality characteristics that can be close enough to him/her to be trusted. However, the adolescents who lived in the foster homes had different peers in the same age and the home environment (or even roommates) that can be trusted (Zhao et al., 2011).

Furthermore, although most of the participants of both groups reported low scores of depressive symptoms; the findings showed that they had the thoughts of death. The participants from the foster homes and the participants who resided with their biological parents in the community had a high mean for the item “thoughts of death or dying” (the mean for the participants from the foster homes was 2.59 and 2.39 for the participants who resided with their biological parents in the community). Pathak et al. (2011) reported that adolescents in general who experience a serious loss in his/her life might think about death, who had a family history of suicide, physical abuse and family violence, parents’ divorce, new family formation, moving to a different community, emotional neglect, and loss of interest in previously pleasurable activities. Accordingly, a qualitative study is required to assess more in depth “thought of death” among the adolescents who lived in foster homes and the adolescents who resided with their biological parents in the community. Also, psychotherapy should be provided for both groups; as in Palestine, there is approximately ( $\pm 200$ ) cases of suicide among adolescents (28% among males and 42% among females) (PCBS, 2012).

Moreover, in the current study, the GSI mean score for the participants from the foster homes was (2.25) compared to (2.24) for the participants who resided with their biological parents in the community. Kanbur et al. (2011) showed that the GSI score for the study group was higher than the control group (GSI=0.87 and 0.60; respectively). One possible explanation for this reason is the parents’ healthy attachment with the adolescents because proper attachment with the adolescents lowers the level of the internalizing and the externalizing problems (Kanbur et al., 2011).

Furthermore, in the current study, the females in both groups had higher GSI scores than the males, as well as those scores were higher among the participants who lived in the foster homes (cases) compared to the participants who resided with their biological parents in the community (controls). These results were supported by Karadag and Ozcebe (2011) who found that the GSI scores for the girls were significantly higher than those for the boys. Also, PST (which measures the diversity of symptoms reported to be experienced by the respondent) and PSDI (which measures the average level of distress caused by existing symptoms) scores were higher among the participants who lived in orphanages compared to those in the general population. These gender differences, which usually become evident during adolescence, has been attributed to hormonal mechanisms that affect brain development and functioning, effects of gender roles, such as inequality in access to health care, and to different environmental influences such as a history of a trauma being more common among females (Karadag and Ozcebe, 2011).

Finally, in general, the cases and controls of the current study did not show major differences between them, thus, the literature review of the current study did not support the results of the current study. This difference could be explained that the cases and controls were from the same school and same community; therefore, they had the same socio-economic factors. However, if the controls were from a private school that had different socio-economic factors, the results might show a significant difference between both groups.

## **6.4. Section three: The relationship between dependent and independent variables**

This section discussed the relationship between the quality of life, psychological problems and other independent variables including socio-demographic data for adolescents who lived in the foster homes and adolescents who resided with their biological parents in the community.

### **6.4.1. The relationship between quality of life, psychological problems and gender of the participants from the foster homes and the adolescents who resided with their biological parents in the community**

The current study assessed the relationship between quality of life, psychological problems, and gender. The finding showed that there was a statistically significant relationship between gender and school domain of quality of life among participants from the foster homes. However, the regression analysis showed that there wasn't any statistically significant relationship between gender and any of quality of life domains. For example, the results showed that males from the foster homes had higher means than females; which means that they had more school problems than females. These results were supported by Attar-Schwartz (2009) and Cocorada and Mihalascu (2012) who showed that males had more problems in school functioning than females from the foster care settings as the females used a large range of coping strategies compared to males. In addition, Liu et al. (2004) showed that females were more likely to employ avoidant coping than males; thus, active coping was a protective factor.

Also, there was a statistically significant relationship between gender and emotional domain among the participants who resided with their biological parents in the community; where the females had a higher mean than the males. Also, the regression analysis showed that there was only a statistically significant relationship between gender and the emotional domain (0.026). These gender differences were usually obvious during adolescence, and it was related to outside factors such as the accumulation of previous negative events, genetics, and other factors like hormonal mechanisms that affect the brain development and functioning that could

affect the gender roles. The female's role is to be emotionally unstable, expressive, and preoccupied with feelings and emotions, while the male's role is to be uncommunicative and emotionally stable. Moreover, females were more likely to reflect higher negative effect levels such as sadness, to express more negative emotions, and happier than men in the same time (McWey et al., 2010; Poletto and Koller).

Furthermore, the study results showed a statistically significant relationship between gender and phobic anxiety among the participants from the foster homes. Also, the females had more problems than males among the participants who resided with their biological parents in the community. These results were supported by Attar-Schwartz (2008) who found that females had higher anxiety scores than males. On the other hand, the regression results showed that the participants from the foster homes had statistically significant relationships between gender and obsession-compulsive (0.034), interpersonal sensitivity (0.035), phobic anxiety (0.023), and paranoid ideation (0.016). For the participants who resided with their biological parents in the community, it showed statistically significant relationship between gender and anxiety (0.007), and phobic anxiety (0.024).

These differences were due to the females' hormonal changes during puberty that increase the probability of suffering from symptoms of depression and anxiety, and they tend to suffer more traumatic events than males (Barter et al., 2004; Piccinelli and Wilkinson, 2000; Poletto and Koller, 2011).

#### **6.4.2. The relationship between quality of life, psychological problems and age of the participants from the foster homes and the adolescents who resided with their biological parents in the community**

The findings revealed a statistically significant relationship between age and social domain among participants from the foster homes; as the results showed that the participants who aged between "13 years old – to less than 15" showed a lower quality of life than participants aged between "15 years old – to less than 18". These results were supported by Simsek and Erol (2007) who showed that younger ages had the highest scores in social problems. They

mentioned that separation from a primary caregiver, especially at younger ages, is distressing among young children even if the caregiver failed to provide adequate care. And once they have entered the foster care setting, they frequently experienced additional changes that affect their potential to form a secure attachment with a primary caregiver and healthy social and emotional development.

Also, for the participants who resided with their biological parents in the community, there was a statistically significant relationship between age the emotional domain; where the participants aged between “15 years old – to less than 18” had a lower quality of life than the participants who aged between “13 years old – to less than 15”. This might be because of the physical changes they were experiencing that might strongly influence, either positively or negatively, global self-esteem and their emotional domain, separation from the parents during their adolescence period to seek independence, responsibility for their actions and decisions, and expanding their relationships beyond same-sex friendships (American Psychological Association, 2002).

However, the regression results showed that both groups did not have any statistically significant relationship between age and any of the quality of life domains.

Also, there was a significant relationship with age and somatization as the participants aged from “13 to less than 15 years old” had more problems than the participant who aged from “15 to less than 18”. These results were supported by Akay et al. (2006) who showed that younger adolescents especially the females were more common to develop somatic symptoms because they started the institutional care before five years of age and due to lack of personal care.

In addition, there were significant relationships between age and obsession-compulsive among the participants who resided with their biological parents in the community; where the participants who aged from “15 to less than 18 years old” had more problems compared to the participants aged from “13 to less than 15 years old”. The prevalence of OCD among younger adolescents (13- less than 15 years old) and older adolescents (15- less than 18 years old) is 0.5%-1% to 4% respectively (DSM-5, 2013). According to the DSM-5 (2013), the age of onset for the obsessive compulsive often begins in adolescence or early adulthood, although it can start in childhood due to genetic and environmental factors. It's worth mentioning that the

current study's tool is a screening one, and it couldn't diagnose OCD, therefore, a further study is required to assess this difference.

Further, the findings in the current study revealed no statistically significant difference among both groups for anxiety and depression symptoms and the regression results showed non-significant relationship between age and any of the psychological problems among both groups. These results were supported by Attar-Schwartz (2009) who reported that age was not associated with depression and anxiety levels. Akay et al. (2006) reported that the adolescents who still had a contact with a member of a parent/relative or even went out for visits while being in the foster care setting, was less affected by depression and anxiety symptoms as he/she had this reason as a protective factor against depression and anxiety symptoms. Also, Qamhawi, (2016) and Al-Ja'bari, (2016) indicated that the parents' visits at the SOS Village and the Islamic Charitable Society are regularly every week either in or out of the foster care environment or every month and parents took their children and adolescents at religious holidays, while other parents visit their children once or twice a year in the foster care environment, and some of them do not visit their children and adolescents at all.

#### **6.4.3. The relationship between quality of life, psychological problems and place of residence for the participants from the foster homes and the participants the adolescents who resided with their biological parents in the community**

In the current study, there was no statistically significant relationship between the quality of life, psychological problems, and the place of residence among the participants from the foster homes and the participants who resided with their biological parents in the community. Also, the regression results showed that there wasn't any statistically significant relationship between place of residence and any of the quality of life domains among the participants from the foster homes but for the participants who resided with their biological parents in the community, there was a statistically significant relationship between living in camps and the school domain (0.008).

The Palestinian Ministry of Social affairs (2014) reported that the adolescents from the foster homes and lived in the camps showed a lower quality of life than the other adolescents who lived in the cities. However, in the current study, 58.9% of the participants from the foster homes were from cities, 9.3% were from camps, and 31.7% were from villages. These differences might be because some participants from the foster homes in the current study entered the foster care settings at younger ages, lived in the institutions their entire life; therefore, they were not acquainted with their biological parents. Consequently, they lived in the cities where the institutions were placed, and they took the cities as their place of residence.

For the psychological problems, the results showed that there wasn't any statistically significant relationship between the psychological problems and any of the independent variables among both groups. Moreover, the regression analysis showed that there wasn't any statistically significant relationship between place of residence and psychological problems among the participants from the foster homes. For the participants who resided with their biological parents in the community, there were statistically significant relationships between living in camps and somatization (0.033), interpersonal sensitivity (0.019), depression (0.022), hostility (0.007), phobic anxiety (0.025), and paranoid ideation (0.003).

#### **6.4.4. The relationship between quality of life, psychological problems and educational level of the participants from the foster homes and the adolescents who resided with their biological parents in the community**

The findings showed a statistically significant relationship between the educational level and the social domain of QoL among the participants from the foster homes. It showed that adolescents in the secondary level had a better quality of life in the social domain than the adolescents in the primary level. Further, for the participants who resided with their biological parents in the community, there was a statistically significant relationship between the educational level and the emotional domain. These results were supported by Attar-Schwartz (2009) who showed that older children and adolescents from foster care suffered fewer of social problems than the younger adolescents and it depends on the age at which children and adolescents enter the foster care; as the older adolescents had more adaptability than the

younger ones. Another possible cause could be related to the strict rules in the foster homes that might limit the younger adolescents to participate in social events and activities as the older adolescents were more independent than the younger ones (Qamhawi, 2016). Another reason might be because that younger adolescents were more exposed to school transferring and it could disturb their educational process and their social life as well (making friends and relationships) (Attar-Schwartz, 2009). However, the regression results showed that there wasn't any statistically significant relationship between the educational level and any of the quality of life domains among both groups.

In addition, for the participants from the foster homes, there were statistically significant relationships between the educational level and somatization and anxiety; where the participants in the primary level had more problems than the participants in the secondary level. These results were supported by Liu et al. (2004) who found that secondary level students had more active coping against anxiety and somatic symptoms such as focusing on positive aspects and trying to improve the situation, ability of distraction, and support seeking which were generally associated with decreased psychological symptoms compared to primary level students. However, there wasn't any statistically significant relationship between the educational levels and any of the psychological problems among both groups.

#### **6.4.5. The relationship between quality of life, psychological problems and having a history of previous psychological problems**

For the participants from the foster homes, the regression results did not show any statistically significant relationship between the quality of life domains and having previous psychological history. For the participants who resided with their biological parents in the community, there were statistically significant relationships between having previous psychological physical, emotional, and social domains. Also, the regression analysis showed the same statistically significant relationship between having previous psychological history and physical (0.001), emotional (0.01), and social domains (0.025).

For the participants from the foster homes, there was a statistically significant relationship between having previous psychological history and somatization, interpersonal sensitivity, depression, phobic anxiety, and paranoid ideation. While the regression results showed that there was a statistically significant relationship between having previous psychological history and phobic anxiety among the participants from the foster homes. Also, for the participants who resided with their biological parents in the community, there were statistically significant relationships between having previous psychological history and somatization, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism; where the participants from both groups who answered “Yes” had more problems than the participants who answered no. While the regression analysis showed statistically significant relationships between having previous psychological history and all of the psychological problems.

Costello et al. (2003) reported that if the adolescents develop a disorder, their chances of continuing to have one, or of developing another episode after remission, are much higher than those of their unaffected peers. Furthermore, he also showed that between 23%-61% of children with a diagnosis at a certain age had a diagnosis, although not necessarily the same one, at a subsequent age. And this suggests a high level of psychological therapy continuity as the adolescent might develop other issues, because there were strong relationships between some disorders as it can be developed to another one (Costello et al., 2003). These problems might be developed due to different factors such as genetic, environmental, and level of education (Lawrence et al., 2015).

#### **6.4.6. The relationship between quality of life, psychological problems and years spending in the foster home for the participants from the foster homes**

Regarding the years spent in the foster homes, the findings revealed that there was no statistically significant relationship between the four domains of QoL and years spent in the foster homes among the participants from the foster homes. These results were supported by Akay et al. (2006), Nelson et al. (2014), and Sullivan and Zyl, (2007) who indicated that

children and adolescents who spent a long time in the institution might get adopted and challenged as they get more mature. Also, as the number of months in the foster care increased, the presence of emotional needs identified and diagnosed for the children and the adolescents. Moreover, Schutz and Sarriera (2014) reported that the time spent in the foster care did not differentiate the well-being variables significantly. As they claimed about the importance of stability other than the exact amount of time spent in a protection system, and they demonstrated that children and adolescents who had stability, had better well-being. However, the regression results showed that there were statistically significant relationships between spending from 1-3 years in the organization and the physical domain (0.019), school domain (0.011).

Moreover, in the current study, there was no statistically significant relationship between the years spent in the institution and psychological symptoms. Thus, these results were supported by Attar-Schwartz (2008) and Heflinger et al (2002) who reported that there were no significant associations between levels of depression and anxiety and the length of stay in an institution due to different variables such as the secure attachment; as they could build and maintain secure attachment in the institution they live in, the stability of the placement, and reason for referral. On the other hand, Davidson-Arad, 2005; Gilman and Hendwerk, 2001; Zemach-Marom et al., 2002: Attar-Schwartz, 2008 showed that the longer adolescents stayed in the foster care, the fewer aggressive behavior and social problems they had. However, the regression results showed that there was a statistically significant relationship between spending from 1-3 years in the organization and hostility (0.01) among the participants from the foster homes.

#### **6.4.7. The relationship between quality of life, psychological problems and having siblings in the same the foster home among the participants from the foster homes**

In the current study, there was a statistically significant relationship between the emotional domain of the quality of life and having siblings in the same foster home as the adolescents who had siblings in the same institution had more problems than the adolescents who did not have any. Also, the regression results showed that there were significant relationships between

having siblings in the same organization and the emotional domain (0.007) and the social domain (0.043) for the participants from the foster homes.

This might be because some siblings were separated from each others before moving to the foster homes as some of them were living with one parent and the rest were with the other parent. This factor could affect the relationship between siblings and could impact the feeling of brotherhood between siblings. Also, complex family relationships (parent separation or divorce/ new partners), the nature of sibling relationships, the role of the caregivers, placement pattern, conflict between siblings, physical and sexual abuse, age differential between sibling groups, and had step-siblings might impact children and adolescents' ability to establish and maintain relationships with siblings (James et al., 2008; Herrick and Piccus, 2005).

On the contrary, Poletto and Koller (2011) reported that those siblings who lived together in the same foster home, permitting support between them and maintaining family ties; thus, siblings who were separated from each others might develop more stress. Also, Schutz and Sarriera et al. (2014) and Poletto and Koller (2011) reported that children and adolescents who did not live with any of their sibling in the same foster care setting had low scores in the emotional domain. Children and adolescents who had siblings in the same institution feel better connected to the foster care's staff had better school performance and outcomes and showed fewer behavioral problems than the children and the adolescents who did not have siblings in the same institution (Hegar and Rosenthal, 2011).

Moreover, there wasn't any significant relationship between having siblings in the same organization and any of the psychological problems and the regression analysis showed the same result.

#### **6.4.8. The relationship between quality of life, psychological problems and the organization's type among adolescents from the foster homes and the adolescents who resided with their biological parents in the community**

Finally, in the current study, there were statistically significant relationships between the organization's type and the physical, social, and school domains of quality of life among the participants from the foster homes and the regression analysis showed the same results; where

the Islamic Charitable Society in Hebron had a higher mean values than the SOS Village as they had more problems in these domains. For the participants who resided with their biological parents in the community, there was a statistically significant relationship between organization's type and the physical and school domains. Also, the regression analysis showed the same results except for the school domain (0.033); where the Islamic Charitable Society had a higher mean value than the SOS Village in this domain. Akay et al. (2006) showed that the physical conditions of the foster homes or the institution and the qualifications of the staff who worked with the children and adolescents could worsen and aggravate the problems rather than compensate them.

In addition, there was a significant relationship between obsession-compulsive and the foster homes' types among the participants from the foster homes; where the participants from the Islamic Charitable Society in Hebron had more problems than SOS Village in Bethlehem. Moreover, there was a significant relationship between interpersonal-sensitivity and the foster homes' types among the participants from the foster homes; where the participants from the Islamic Charitable Society in Hebron had more problems than SOS Village in Bethlehem. However, for the participants from the foster homes, the regression analysis showed there were statistically significant relationships between organizational type and obsession-compulsive (0.003), interpersonal sensitivity (0.033), depression (0.045), anxiety (0.019), phobic anxiety (0.00), and paranoid ideation (0.002). For the participants who resided with their biological parents in the community, there was a significant relationship between the interpersonal-sensitivity and the organizational type; where the participants from the Islamic Charitable Society in Hebron had more problems than SOS Village in Bethlehem. Also, the regression analysis showed the same results for the relationship between organizational type and interpersonal sensitivity (0.013).

Attar-Schwartz (2008) showed that the organizational culture and climate of child welfare had a significant impact on the care received by the children and the adolescents and associated them with the adolescents' outcomes. Thus, it indicated that adolescents' social and emotional health varies across different institutions, and this variation was found after taking into consideration the adolescents' characteristics. Also, Carbone et al. (2007) revealed that when

the environment of the foster home became more stable, the adolescents' QoL problems decreased. In addition, Vivan et al. (2014) reported that environmental stressors might be a trigger for some psychological symptoms in people with a tendency toward developing the condition. Thus, the physical environment, the quality of provided services, and the organizational phenomena played an important role in the adolescents' psychological health. Leisure time and academic activities lower the level of the psychosocial difficulties because informal activities can enhance the adolescents' sense of competence and introduce them to areas that they enjoy and succeed in (Gilligan, 2000; Shinn, 2003; Attar-Schwartz, 2008).

For example, the SOS Village was established as family-like environment. It is based on the alternative mother theory; where 7-9 children and adolescents (among different ages) were gathered in an independent house with one alternative mother. Those children and adolescents were lived together as a normal life in one house as a family, where the mother (who is responsible for that home) is the only one who can provide children and adolescents with protection, safety, stability, teaching after school, and feelings of love and care. She lives with them, supervises their development and manages the house and its responsibilities. She receives the budget of food and clothing expenses and responsible to buy all the children's food and clothing items to fulfill their needs; and under the supervision of the Village's administration. When males reach puberty, they are separated from females in youth houses under the supervision of the Village's administration and the females stay in the Village until her marriage and some of them trained to do the alternative work of the mother (Qamhawi, 2016).

However, the Islamic Charitable Society is based on the collective intervention without the design of family-like environment or independent houses with one alternative mother. The children and adolescents' shelter is about one huge building with different departments. In each department, 22-24 children and adolescents sleep together in different rooms according to their ages. In each department, there are two supervisors who are responsible for teaching the children and adolescents after school. Also, children and adolescents' physical needs are provided together such as the day's meals where they eat together in one kitchen where there are different chefs do their job in a huge kitchen.

Also, the foster care staff had a significant role in the adolescents' lives either positively or negatively, and it could indicate the importance of their attitudes towards adolescents and another team in the setting. Thus, the psychological problems were significantly higher among the adolescents who reported that they could not share their problems with the foster care staff due to their reflections and reactions (Karadag and Ozcebe, 2011). In addition, these results might related to the adolescents' attachment to the institution; in which the adolescent with secure attachment had lower levels of depression, anxiety, and social withdrawal (Gearing and Schwalbe 2015).

Finally, the foster care staff included the social workers and the psychologists who played an important role in helping the adolescents to facilitate healthy development at the foster care settings and to reduce problems caused by living in the foster homes. Although the quality of life of the participants in the SOS Village School was better than the Islamic Charitable Society School, the Islamic Charitable Society had four social workers and two psychologists, while the SOS had only three social workers and one psychologist working with children and adolescents. This difference might be because of the home environment and the lifestyle inside each foster home or school and the number of children in each institution.

## **6.5. Pearson Correlation**

In addition, Pearson correlation analysis was done to assess the relationship between the four domains of the quality of life and the psychological problems, and there was a significant negative relationship between the quality of life and the psychological problems. Yendork and Somhlaba (2014) reported that the Pearson correlation revealed significant correlations between psychological symptoms (such as depression and anxiety) and the quality of life among the orphaned children and adolescents and the non-orphans. Accordingly, the physical domain had the weakest relationship with the psychological problems while the emotional domain had the strongest one. For the emotional domain, placement instability, physical neglect and failure to provide physical needs, caregiver irresponsibility, inadequate supervision such as exposure to hazards or lack of appropriate caregivers, medical neglect through denial or delay of health care, emotional neglect such as inadequate nurturing or affection and social

isolation, and educational neglect appeared to be other reasons to negatively impact foster adolescents' emotional domain across their lifespan (Williams-Mbengue, 2014; Akin et al., 2015). Furthermore, adolescents who lived in foster homes might face some difficulties in developing stable and continuous attachment relationships with the caregivers in the foster care settings due to caregivers' neglect, physical violence, and to the limited amount and poor quality of contact with their caregivers (Van IJzendoorn et al., 2014).

For the physical domain, the environmental stability could play an important role in the individual's stability, in addition to the physical activities that the adolescents participated with. Moreover, other factors might be related to placement structure, suitability of the physical environment to adolescents' needs, activities after school, and peer violence (Attar-Schwartz, 2009) Also, it might be because of the adolescents usually did not had physical problems at this age period (Karadag and Ozcebe, 2011; Rosen et al., 2015).

## **6.6. Conclusion**

The current study assessed the QoL and the psychological problems among the adolescents who lived in the foster homes (cases) compared to the adolescents who resided with their biological parents in the community (controls) in Hebron and Bethlehem cities. The findings indicated in general that QoL was good for the participants from the foster homes, but it was somewhat lower compared to the participants who resided with their biological parents in the community. For example, the statistical analysis revealed that 77.03% of the participants from the foster homes and 80.5% of the participants who resided with their biological parents in the community rated their overall quality of life as good. The physical domain was in the range of good functioning followed by the social domain for both groups. On the other hand, the emotional domain and the school domain ranged lower than the physical and the social for both groups as well.

Moreover, the results showed that both groups had the same mean values for three psychological problems out of nine; which were somatization, anxiety, and depression. Furthermore, the participants from the foster homes had higher mean values than the participants who resided with their biological parents in the community for four psychological

problems out of nine; which were interpersonal sensitivity, paranoid ideation, psychoticism, and phobic anxiety. However, the participant and the adolescents who resided with their biological parents in the community had higher mean values than the participants from the foster homes for two out of nine of the psychological problems which were obsession-compulsive and hostility. Also, 16.8% of the participants from the foster homes considered to be at risk of having psychological symptoms, and 13% for the participants who resided with their biological parents in the community.

Moreover, for the quality of life of the participants from the foster homes, the regression analysis showed statistical significant relationships between the physical domain and organizational type (0.008) and years spent in the organization (from 1-3 years) (0.019). For the emotional domain, it showed a statistically significant relationship between the emotional domain and having siblings in the same organization (0.007). For the social domain, it also showed a statistically significant relationship between the social domain and having siblings in the same organization (0.043). For the school domain, there were statistically significant relationships between the school domain and organizational type (0.004) and years spent in the organization (from 1-3 years) (0.001).

For the participants who resided with their biological parents in the community, the regression results showed that there were statistically significant relationships between the physical domain and organizational type (0.039) and having previous psychological history (0.001). For the emotional domain, it showed that there were statistically significant relationships between the emotional domain and gender (0.026) and having previous psychological history (0.010). For the social domain, there was a statistically significant relationship between the social domain and having previous psychological history (0.025). For the school domain, there were statistically significant relationships between the school domain and organizational type (0.033) and living in camps (0.008).

In addition, for the psychological problems of the participants from the foster homes, the regression results did not show any significant relationship between somatization and any other independent variable. For obsession-compulsive, there were statistically significant relationships between obsession-compulsive and gender (0.034) and organizational type

(0.003). For interpersonal sensitivity, there were statistically significant relationships between interpersonal sensitivity and gender (0.035), organizational type (0.033), and having previous psychological problems (0.047). For depression, there was a statistically significant relationship between depression and organizational type (0.045). For anxiety, there was a statistically significant relationship between anxiety and organizational type (0.019). For hostility, there was a statistically significant relationship between hostility and years spent in the organization (1-3 years) (0.01). For phobic anxiety, there were statistically significant relationships between phobic anxiety and gender (0.023), organizational type (0.00), and having previous psychological history (0.019). For paranoid ideation, there were statistically significant relationships between paranoid ideation and gender (0.016), organizational type (0.002), and having previous psychological history (0.032). For psychoticism, there wasn't any significant relationship between psychoticism and any independent variable.

For the participants who resided with their biological parents in the community, the regression results showed that there were statistically significant relationships between somatization and living in camps (0.033) and having previous psychological history (0.019). For obsession-compulsive, there was a statistically significant relationship between obsession-compulsive and having previous psychological history (0.044). For interpersonal sensitivity, there were statistically significant relationships between interpersonal sensitivity and organizational type (0.013), living in camps (0.019), and having previous psychological problems (0.001). For depression, there were statistically significant relationships between depression and living in camps (0.022) and having previous psychological history (0.00). For anxiety, there were statistically significant relationships between anxiety and gender (0.007), and having previous psychological history (0.008). For hostility, there were statistically significant relationships between hostility and living in camps (0.007), and having previous psychological history (0.014). For phobic anxiety, there were statistically significant relationships between phobic anxiety and gender (0.024), living in camps (0.025), and having previous psychological history (0.00). For paranoid ideation, there were statistically significant relationships between paranoid ideation and living in camps (0.003), and having previous psychological history (0.00). For psychoticism, there were statistically significant relationships between psychoticism and having previous psychological history (0.00).

Finally, the Pearson's test revealed weak and negative statistically significant relationship between quality of life and the psychological symptoms. The strongest relationship was for the emotional domain and the weakest one was for the physical domain.

## **6.7. Section five: Limitations and recommendations**

### **6.7.1. Limitations**

There are many limitations in the current study. For example, this study utilized a case-control design, due to the limitations of the available time and scarcity resources. This makes it difficult to assess accurately the quality of the adolescents' data because they rely on memory (also called recall bias). Also, this type of design may have limitations in the generalization of the results to a wider population since it measures both the prevalence of the outcomes and the determinants in a population at a point in time or over a short period which does not allow calculation of incidence. In addition, case-control studies may prove an association, but they do not demonstrate causation (Stang A, Joekel 2004).

The data collection for this study was done by using a self-administered questionnaire. So, the reliability of the results may be affected, since the participants may hesitate to express their points of view or they may describe their thoughts, feelings, or behaviors in a spurious way to please the researcher. Further, the sample included only adolescents from Bethlehem and Hebron cities which may limit the generalization of the findings to other institutions in West Bank.

Finally, the sample size might not consider a large one; however, it included all adolescents who lived in both foster homes in Bethlehem and Hebron cities.

## **6.7.2. Recommendations**

### **Recommendation for health and social policy makers:**

- The Palestinian Ministry of Social Affairs and Ministry of Health might cooperate with the foster care managers to monitor and to improve the quality of life and the psychological health of the adolescents who live in the foster care settings in Palestine.
- There is a need for psychotherapy interventions that support the adolescents who study at foster care school particularly adolescents who had psychological problems
- There is a need for ongoing screening programs for early detection of the psychological problems among adolescents either at schools or at foster homes.
- Assessment of quality of life for the adolescents who live in the foster care settings should be integrated into health assessment protocol.
- Psychological services and treatment should be integrated into foster homes services to offer psychological treatment for the adolescents who lived in the foster homes.
- Training programs about assessing the quality of life and the psychological problems among adolescents should be done for the teachers and the mental health professionals in school settings and foster homes

### **Recommendation for foster homes managers:**

- Psychological therapy should be included as a routine in the treatment plan in the foster homes to improve the mental health of the children and adolescents and their quality of life.
- Train the caregivers, the foster care's staff, and the mental health professionals (social workers and psychologists) in the foster care settings about the assessment of the quality of life and the psychological problems and their treatment.

- To improve quality of life, physical activity should be included in the services of the foster homes particularly for the high risk groups such as adolescents who lived in the Islamic Charitable Society, the adolescents who had attention problems, the adolescents who had siblings in the same foster home, males, the adolescents who lived in camps, the adolescents who had a history of previous psychological problems, and the adolescents who spent from 1-3 years in the foster homes.
- Psychotherapy interventions should be provided in the foster homes particularly for high risk groups such as being females, the adolescents who lived in the Islamic Charitable Society in Hebron, having a history of previous psychological problems, the adolescents who had suicidal thoughts, adolescents who lived in camps, and the adolescents who spent 1-3 years in the foster homes.

#### **Recommended research in the future:**

Based on the results of the study, the following further researches are suggested:

- There is a need for further quantitative study to assess the quality of life and the psychological problems of the adolescents who live in the foster homes in the Middle and the North of Palestine.
- There is a need for further quantitative and qualitative studies to assess the causes of high prevalence of the psychological symptoms in the Islamic Charitable Society in Hebron.
- There is a need for further quantitative study among the adolescents who live in the foster homes to assess the relationships between the quality of life and socio-demographic data such as age and educational level.
- There is a need for further quantitative study among the adolescents who live in the foster homes to assess the relationship between the psychological problems and the

socio-demographic data such as age, educational level, and having siblings in the same foster homes.

## Bibliography

- Abramson J.H and Abramson Z.H. (1999): Survey methods in community medicine, epidemiological research program evaluation clinical trials. <http://www.barnesandnoble.com/w/survey-methods-in-community-medicine-j-h-abramson/1100606753?ean=9780443061639>. Accessed on June 2013.
- Akin B., Byers K., Lloyd M., McDonald T. (2015): Joining formative evaluation with translational science to assess an EBI in foster care; Examining social-emotional wellbeing and placement stability. Vol. (58), pp. (253-264). Available on October 2015.
- Al-Ja'bari M. (2016). Educational Psychologist for Children and Adolescents at Islamic Charitable Society in Hebron.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), American Psychiatric Association, Arlington 2013.
- American psychology association (2011): definition of terms: Sex, Gender, Gender Identity and Sexual Orientation. <http://www.apa.org/pi/lgbt/resources/sexuality-definitions.pdf>, accessed on March 2015.
- American psychology association (2002): Adolescents Development; A reference for Professionals. United States of America.
- Attar-Schwartz S. (2009): School functioning of children in residential care: The contributions of multilevel correlates. Pp (429–440). Accepted on December 2008.
- Attar-Schwartz S. (2008): Emotional, behavioral and social problems among Israeli children in residential care: A multi-level analysis. Vol. (30), pp. (229-248). Available online on 11 October 2007.
- Barlow D. (2002): Anxiety and its disorders; the nature and treatment of anxiety and panic. Second edition.
- Barsky AJ. Assessing the New DSM-5 Diagnosis of Somatic Symptom Disorder. *Psychosom Med* 2016; 78:2.
- Bass. S, Shields. M., and Behrman. R. (2004): Children, families, and foster care; Analysis and recommendations. Vol. 14, No. 1.
- Berlim M. and Fleck M. (2007): Quality of Life and Major Depression. Pp. 241-252.
- Bogdan M. (2014): Adolescents' Positive Expectations and Future Worries on their Transition to Adulthood. No. (149), pp. (433-437).

- Brooks, R. and S. Goldstein. (2002). Raising resilient children: Fostering strength, hope, and optimism in children. Baltimore, MD: Paul Brookes Publishing Company.
- Burckhardt. C. and Anderson K.L. (2003): The Quality of Life Scale (QOLS): Reliability, Validity, and Utilization. Vol. 1, No. 60, pp. 1477 – 7515.
- Burns N, Grove SK (2005): The Practice of Nursing Research: Conduct, Critique, and Utilization (5th Ed.). pp. 1-780.
- Burns, N. and Grove, SK. (1999): Understanding Nursing Research. Second Edition://books.google.ps/books?id=Y9T3QseoHiYC&printse=frontcover&hl=ar&source=gbs\_ge\_summary\_r&cad=0#v=onepage&&f=false. Accessed on May 2014.
- Campbell D. and Campbell S. (2008): Introduction to regression and data analysis. Available in 2008.
- Carbone J, Sawyer M., Searle A., and Robinson P. (2007): The health related quality of life of children and adolescents in home-based foster care. Vol. 16, No.7, pp. 1157-1166. Accessed on September 2007.
- Carney D. and Harrigan J. (2003): It Takes One to Know One: Interpersonal Sensitivity Is Related to Accurate Assessments of Others' Interpersonal Sensitivity. Vol. (3), No. (2), pp. (194-200).
- Census Bureau (2008) and Federal Interagency Forum on Child and Family Statistics, 2009.
- Center for Disease Control and Prevention. Health-Related Quality of Life, USA, 2011. <http://www.cdc.gov/hrqol/concept.htm>. Published on March 2011.
- Chandna P. (2014): Obsessive compulsive disorder in children and adolescents. Issue. (3), Vol. (4). Accepted on July 2015.
- Chen. X. Origasa. H., Ichida. F., Kamibeppu. K., Varni. J. (2007): Reliability and validity of the Pediatric Quality of Life Inventory™ (PedsQL™) Short Form 15 Generic Core Scales in Japan. Vol. 16, pp. 1239-1249. Published online: 7 July 2007.
- Chipunqu. S. and Bent-Goodley. T. (2004): Meeting the challenges of Contemporary Foster Care. Vol. 14, No. 1, pp. 75-93.
- Cluver L., Gardner F., and Operario D. (2009): Poverty and psychological health among AIDS-orphaned children in Cape Town, South Africa. Pages (732-741). Accessed on June 2009.
- Cocorada E. and Mihalascu V. (2012): Adolescents coping strategies in secondary school. Vol. (33), pp. (188-192).

- Cohen. L., Manion. L., and Morrison. K (2004): *Research Methods in Education* 5th Edition. New York.
- Cozby P. (2001): *Methods in behavioral research* (7th edition). California: Mayfield Publishing Company.
- Damnjanovic M., Lakic A., Stevanovic D., and Jovanovic A. (2011): Effects of mental health on quality of life in children and adolescents living in residential and foster care; a cross sectional study. Vol. 20, No.3, pp. 257-62.
- Dessogi. R. (1996). Fathers deprivation and relationships with psychological adjustment, attitude understandable and depression for students in university. *Journal of psychology*, Egyptian general aspect for books, ten years, No. 40.
- *Diagnostic and Statistical Manual of Mental Disorders* (2013), Fifth Edition. American Psychiatric Association.
- Boss., Doherty. WJ., PG., LaRossa. R., and Schumm. WR. (1993): *Family theories and methods (a contextual approach)*. Pp. 21- 31.
- Dounchis, J. Z., Hayden, H. A., Wilfley, D. E. (2001). Obesity, body image, and eating disorders in ethnically diverse children and adolescents. In J. K. Thompson & L. Smolak (Eds.), *Body image, eating disorders, and obesity in youth: Assessment, prevention, and treatment*. Washington, DC: American Psychological Association.
- Duncan. G., Stein. R. (2004): children's health, the Nation's wealth assessing and improving child health. pp. 324-1, Washington, the National Academy of Sciences.
- Federal Interagency Forum on Child and Family Statistics. *America's Children: Key National Indicators of Well-Being, 2009*. Washington, DC: U.S. Government Printing Office.
- Ferrera P., Romani L., Bottaro G., Ianniello F., Fabrizio G., Chiaretti A., and Alvaro F. (2013): *The Physical and Mental Health of Children in Foster Care*. Vol. 42, No. 4, pp. (368-373). Accessed on February 2013.
- Gearing R. and Schwalbe C. (2015): Assessment of adolescent mental health and behavioral problems in institutional care; Discrepancies between staff-reported CBCL scores and adolescent-reported YSR scores. Vol. (42), No. (3).
- Giagazoglou. P., Kouliousi. C., Sidiropoulou. M., and Fahantidou. A. (2012): The effect of institutionalization on psychomotor development of preschool aged children. Vol. 33, No. 3, pp. 964-70.
- Gorrindo T. and Parekh R. (2015): *Obsessive compulsive disorder*. American Psychiatric Association.

- Green R. and Ellis P. (2007): Linking structure, process, and outcome to improve group home services for foster youth in California. Vol. (30), Issue. (3), pp. (307-317). Available on August 2007.
- Gunnar. MR., Bruce. J. and Grotevant. HD. (2000): International adoption of institutionally reared children; Research and policy. Vol. 12, No. 4, pp. 677-93.
- Hariton J. (2007): What's normal and what's not? Adolescents and anger. Psychiatry Weill Cornell Medical College.
- Heflinger CA, Simpkins CG, Combs-Orme T. (2002): Using the CBCL to determine the clinical status of children in state custody. Vol. (22), pp. (55–73).
- Hegar R. and Rosenthal T. (2011): Foster children placed with or separated from siblings: Outcomes based on a national sample. Pp. (1245–1253). Accepted on February 2011.
- Henriques G. (2011): Theory of knowledge; A new unified approach of psychology 2011th edition. London. Vol.10, pp. 1007-978.
- Holi M. (2003): Assessment of Psychiatric symptoms using the SCL-90. Accepted on March 2003.
- James S., Monn A., and Leslie L. (2008): Maintaining sibling relationships for children in foster and adoptive placements. Vol. (30), No. (1), pp. (90-106).
- Jones R, Dick A., Coyl-Shepherd D., and Ogletree M. (2014): Antecedents of the Male Adolescent identity Crisis: age, grade, and physical development. Vol. (46), No. (4), pp. (443-459).
- IJzendoorn. M., Palacios. J., Sonuga-Barke. E, Gunnar. M., Vorria. P., McCall. R., LeMare. L., Bakermans-Kranenburg. M., Dobrova-Krol. N., and Juffer. F. (2011): Children in Institutional Care: Delayed Development and Resilience. Vol.79, No. 4, pp. 30-8.
- Jozefiak. T. and Kayed. N (2015): Self- and proxy reports of quality of life among adolescents living in residential youth care compared to adolescents in the general population and mental health services (Article 18). Vol. 10, No. 14, pp. 13-104.
- Kaelin M. and Bayona M. (2004): Case control study; The Young Epidemiology Scholars Program (YES). Pp. (1-67).
- Klatchoian. D., Len. C., Teresa. M., Silva. M., Itamoto. C., Ciconelli. R., Varni. J., and Hilario. M. (2008): Quality of life of children and adolescents from São Paulo; reliability and validity of the Brazilian version of the Pediatric Quality of Life Inventory™ version 4.0 Generic Core Scales. Vol. 84, No. 4, pp. 1678-4782.

- Langton C. and Berger L. (2011): Family structure and adolescent physical health, behavior, and emotional well-being. Vol. (85), No. (3), pp. (323-357). Available on June 2013.
- Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, and Zubrick SR (2015): The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Well-being. Department of Health, Canberra.
- Lawrence M, Font B. and S. (2015): The role of the family and family-centered programs and policies.
- Liu X., Tein J., and Zhao Z. (2004): Coping strategies and behavioral and emotional problems among Chinese adolescents. Pp. (275–285). Accepted on 14 February 2004.
- Mai F. (2004): Somatization disorder; a practical review. Vol. 49, No. 10, pp. (652-662).
- Mann C. (2003): Observational research methods; Research design II: cohort, cross-sectional and case-control studies. No. 20, pp. 54-60.
- Marcus M., Chisholm D., Yasamy T., Ommeren M., and Saxena S. (2012): A Global Public Health Concern. WHO Department of Mental Health and Substance Abuse.
- Martin J. and Penn D. (2001): Social cognition and subclinical paranoid ideation. Vol. (40), issue (3), pp. (261-265). Accessed on September 2001.
- Martire L. and Franks M. (2014): The Role of Social Networks in Adult Health: Introduction to the Special Issue. Vol. (33), No. (6), pp. (501-504). Accepted on March 2014.
- Mattiuzzi P. (2008): Psychological health; <http://everydaypsychology.com/2008/07/what-is-psychological-health.html#.VmW3-tJ97IU>.
- McDonald T., Allen R., Westerfelt A., and Piliavin I. (1993): Assessing the long-term effects of foster care, A Research Synthesis. Pp (22-34).
- McDonald. T., Westerfelt. A., and Piliavin. A. (1993): Institute for research on poverty, special report serious; assessing the long-term effects of foster care. A research synthesis. Pp. 2-188.
- McWey L., Acock A., and Porter B. (2010): The Impact of Continued Contact with Biological Parents upon the Mental Health of Children in Foster Care. Vol. (32), No. (10), pp. (1338–1345). Available on October 2011.

- Mooney A., Oliver C., and Smith M. (2009): Impact of Family Breakdown on Children's Well-being. University of London.
- Moretti M. and Peled M. (2004): Adolescent-parent attachment: Bonds that support healthy development. Vol. (9), No. (8), pp. 551-555.
- National Institute of Mental Health (2016). Obsession-Compulsive disorder among Children and Adolescents. United States.
- Nelson. T., Kidwell. K, Hoffman. S., Trout. A., and Epstein. M. (2014): Residential Care: Description and Correlates.
- Nokali N., Bachman H., and Votruba-Drzal E. (2010): Parent Involvement and Children's Academic and Social Development in Elementary School. Vol. (81), No. (3), pp. (988-1005). Available on May 2011.
- Palacios. J. and Sánchez-Sandoval. Y. (2005): Beyond adopted/non-adopted comparisons, Psychological issues in adoption: Research and applications; Westport, CT. pp. 115–142.
- Palestinian Central Bureau of Statistics (2013): The Status of the Rights of Palestinian Children. Ramallah – Palestine.
- Palestinian Central Bureau of Statistics (2015): the reality of Palestinian children's rights 2014. Ramallah/Palestine. Published on April 2015.
- Palestinian Central Bureau of Statistics, (2015). The Status of the Rights of Palestinian Children (2014). Ramallah - Palestine. Accessed on April 2015.
- Palestinian Central Bureau of Statistics, 2006. Annual Report 2006. Palestinian Children–Issues and Statistics. Child Statistics Series (No.9). Ramallah - Palestine.
- Palestinian Central Bureau of Statistics, Demographic and Health Survey (2004). Palestinian National Authority. [http://www.pcbs.gov.ps/Portals/\\_PCBS/Downloads/book1234.pdf](http://www.pcbs.gov.ps/Portals/_PCBS/Downloads/book1234.pdf). Published on February 2006
- Palestinian Central Bureau of Statistics, Glossary of statistical terms used in PCBS (2004). Palestinian National Authority Ramallah/ Palestine. [http://www.pcbs.gov.ps/Portals/\\_PCBS/Downloads/book1863.pdf](http://www.pcbs.gov.ps/Portals/_PCBS/Downloads/book1863.pdf). Accessed on May 2014.
- Pathak R., Sharma R., Parvan U., Gupta B., Ojha R., and Goel N (2011): Behavioral and emotional problems in school going adolescents. Vol. (4), No. (1), pp. 15-21. Available on January 2011.

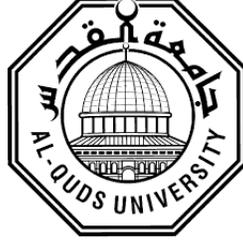
- Perry. BD., Pollard. RA., Blakley. TL., Baker. WL, and Domenico. V. (1995): Childhood trauma, the neurobiology of adaptation, and “use-dependent” development of the brain; how “states” become “traits”. Vol 16, pp. 271 – 291.
- Pickhardt C. (2010): Adolescence and fear of the future; Surviving Adolescence.
- Perry. PD. and Pollard. R. (1998): Homeostasis, stress, trauma and adaptation: a neuro-developmental view of childhood trauma. North America. Vol. 7, pp. 33-51.
- Polgarr S. Thomas SA. (1997): Introduction to research in the health sciences. Fifth edition. [http://www.amazon.com /introduction –Research –Health –Sciences - 6e/dp/0702041947](http://www.amazon.com/introduction-Research-Health-Sciences-6e/dp/0702041947). Accessed on September 2013.
- Poletto, M. and Koller, S. (2011). Subjective well-being in socially vulnerable children and adolescents. *Psicologia: Reflexão e Crítica*, 24(3), pp. 476-484.
- Polit D. and Beck C. (2004): Nursing research; principles and methods. Seventh edition. Lippincott Williams and Wilkins.
- Qamhawi A. (2016): The managing Director of the SOS Village in Bethlehem.
- Rothausen. T.J. (1999): Family in organizational research; A review and comparison of definitions and measures. Vol. 20, pp. 817-836.
- Rosen D., Szilagyi M., Rubin D., and Zlotnik S. (2015): Health Care Issues for Children and Adolescents in Foster Care and Kinship Care. Vol. (136), No. (4), pp. (1098-4275). Available on July 2015.
- Rubin A. and Babbie E. (2008): Research methods for social work. Sixth edition. Accessed on April 2014.
- Rus. A, Stativa. E., Pennings. J., Cross. D., Ekas. N., Purvis. K., and Parris. S. (2013): Severe punishment of children by staff in Romanian placement centers for school-aged children: Effects of child and institutional characteristics. Vol. 37, pp. 1152-1162.
- Schutz F., Sarriera J., Bedin L., and Montserrat C. (2014): Subjective well-being of children in residential care centers: Comparison between children in institutional care and children living with their families. Vol. 15, N. 1, pp. (19-30).
- Schwartz. SA. (2009): School functioning of children in residential care. Pp. 429 – 440.
- Seliger H., Shohamy E. and Shohamy E.G. (1989): Second language research methods. Oxford University Press.
- Simsek. Z., Erol. N., Oztop. D., and Munir. K. (2007): Prevalence and predictors of emotional and behavioral problems reported by teachers among institutionally reared

children and adolescents in Turkish orphanages compared with community controls. Vol. 27, No.7, pp. 883-889.

- Smyth. R. (2004): exploring the Usefulness of a Conceptual Framework as a Research tool: A Research's Reflections. *The Educational Research*, Vol.14 No. (2), pp. 167-180.
- SOS Children's Villages/Palestine (2009): A loving home for each child. Unpublished document.
- Sullivan. D. and van Zyl. M. (2007): The well-being of children in foster care; exploring physical and mental health needs. University of Louisville, Kent School of Social Work, Louisville, United States. Accepted on the 9th of December 2007.
- Tambelli. R, Cerniglia. L., Cimino. S., and Ballarotto. G. (2015): Parent-infant interactions in families with women diagnosed with postnatal depression: a longitudinal study on the effects of a psychodynamic treatment, *Sapienza University of Rome*, Vol. 6.
- Turney K and Wildeman C. (2016): Mental and Physical Health of Children in Foster Care. Vol. 138, N. 5.
- United Nations Committee on the Rights of the Child; United Nations Children's Fund; Bernard van Leer Foundation; and UNICEF (2006): A Guide to General Comment 7: 'Implementing Child Rights in Early Childhood'.
- Van IJzendoorn. M., Palacios. J., Sonuga-Barke. E., Gunnar. M., Vorria. P., McCall. R., LeMare. L., Kranenburg. M., Dobrova-Krol. N., and Juffer. F. (2014): Children in Institutional Care; Delayed Development and Resilience. Vol. 76, No. 4, pp. 8-30.
- Van Teijlingen E. and Hundley V. (2001): Social update research "The importance of pilot studies). Published by the Department of Sociology, University of Surrey, P (33-6), Vol. 40, No. 16, Issue (35), accessed on June 2002, England.
- Varni. J.W., Seid. M., and Kurtin. P.S. (2001): PedsQL 4.0: reliability and validity of the Pediatric Quality of Life Inventory version 4.0 generic core scales in healthy and patient populations. Vol. 39, No. 8, pp. 800-12.
- Vivian A., Rodrigues L., Wendt G., Bicca M., Braga D., Cordioli A. (2014): Obsessive-compulsive symptoms and obsessive-compulsive disorder in adolescents: a population-based study. Department of Psychiatry. Brazil.
- Vorria. P., Papaligoura. Z., Dunn. J., van IJzendoorn. MH., Steele. H., Kontopoulou. A., and Sarafidou. Y. (2003): Early experiences and attachment relationships of Greek infants raised in residential group care. Vol. 44, No. 8, pp. 1208-20.

- Weiss J., Mouttapa M., Chou C., Nezami E., Johnson A., Palmer P., Cen S., Gallaher P., Ritt-Olson A., Azen S., and Unger J. (2005): Hostility, depressive symptoms, and smoking in early adolescence. No. (28) pp. (49-62).
- WHO (2004): The World Health Organization's WHOQOL-BREF quality of life assessment; Psychometric properties and results of the international field trial A Report from the WHOQOL Switzerland, pp. 299-310.
- WHO (2006): ICD-10: F40-F48.
- WHO: WHOQOL; measuring Quality of Life. 1997.
- World Health Organization (2015): Maternal, newborn, child and adolescent health. From: [http://www.who.int/maternal\\_child\\_adolescent/topics/adolescence/dev/en/](http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/).
- Williams-Mbengue N. (2014): The social and emotional well-being of children in foster care.
- Yendork. S. and Somhlaba. N. (2014): Stress, coping and quality of life: an exploratory study of the psychological well-being of Ghanaian orphans placed in orphans orphanages. Vol. 46, pp. 28-37.
- Zeanah. CH., Smyke. AT., Koga. SF., and Carlson. E. (2005): Attachment in institutionalized and who resided with their biological parents in the community children in Romania. Vol. 76, No. 5, pp. 1015-28.
- Zhao J., Li X., Barnett D., Lin X., Fang X., Zhao G., Naar-King S., and Stanton B. (2011): Parental Loss, Trusting Relationship with Current Caregivers and Psychosocial Adjustment among Children Affected by AIDS in China. Vol. (16), No. (4), Pp (437-449). Accepted on August 2011.

**جامعة القدس**  
**كلية الصحة العامة**  
برنامج الدراسات العليا



موافقة على المشاركة في بحث علمي

تحية طيبة وبعد،

تقوم طالبة طالبة الماجستير في كلية الصحة العامة فيدا بنورة في اجراء بحث بعنوان " تقييم جودة الحياة والمشاكل النفسية لدى الأطفال الذين يعيشون في دور الرعاية البديلة والأطفال الذين يعيشون في المجتمع في منطقتي بيت لحم والخليل / فلسطين كمتطلب أساسي للتخرج من الجامعة. حيث تهدف هذه الدراسة إلى بيان تأثير مأسسة الطفل الذي يعيش في مؤسسات للاطفال اليتامى على صحته العامة ومستوي معيشتة، من أجل زيادة وعي المجتمع باحتياجات هؤلاء الاطفال الاساسية. معلومات هذه الدراسة ستبقى سرية وتستخدم لغرض البحث العلمي فقط. ولا داعي لكتابة الاسم أو أي معلومات شخصية على الاستبانة. فالمشاركة في هذا البحث اختيارية وطوعية. ويستطيع المشارك التوقف عن المشاركة في أي وقت من تعبئة الاستمارة.

جامعة القدس: 2756200-02

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شكراً على المشاركة في هذه الدراسة البحثية

## البيانات الشخصية

يتناول هذا القسم بيانات شخصية، الرجاء وضع اشارة (X) في مكان الاجابة للأسئلة:

(1) العمر:

- 13 سنة – 15 سنة
- أكثر من 15 سنة – 18 سنة

(2) الجنس:

- ذكر
- انثى

(3) المكان:

- قرية SOS للأطفال – بيت لحم
- الجمعية الخيرية الاسلامية – الخليل

(4) أنا مقيم في:

- داخل الجمعية/ المؤسسة
- خارج الجمعية/ المؤسسة

(5) المكان الأصلي الذي تنتمي اليه:

- قرية
- مخيم
- مدينة

(6) السنوات التي قضيتها في المؤسسة (فقط اذا كانت اجابتك في سؤال رقم 4- داخل

الجمعية/ المؤسسة):

- أقل من سنة
- 1 – 3 سنوات
- أكثر من 3 سنوات – 5 سنوات
- أكثر من 5 سنوات

(7) المرحلة الصفية:

- المرحلة الأساسية (الصف السابع والثامن والتاسع)
- المرحلة الثانوية (الصف العاشر والحادي عشر والثاني عشر)

(8) هل يوجد لك اخوة أو اخوات اخرين في المؤسسة (فقط اذا كانت اجابتك في سؤال رقم 4- داخل الجمعية/المؤسسة)؟

- نعم
- لا

(9) هل عانيت من مشاكل نفسية في الماضي أو الحاضر؟

- نعم
- لا

## تقييم الحالة النفسية (BSI – 53)

أمامك قائمة مشاكل أو شكاوي يعاني منها بعض الناس. اقرأ كل واحدة بتمعن وضع دائرة حول الرقم الذي يبين الى أي مدى عانيت من هذه المشكلة في الأسبوع الأخير حتى اليوم. الرجاء عدم ترك أي جملة.

إلى أي مدى عانيت من :-	مطلقا	نادرا	أحيانا	غالبا	دائما
1. الشعور بالعصبية و الرعشة					
2. الشعور بالإغماء أو الدوخة					
3. الاعتقاد بأن شخصاً ما يستطيع السيطرة على أفكارك					
4. الشعور بالقاء اللوم على الآخرين بأنهم السبب في معظم مشاكلك					
5. صعوبة في تذكر الأشياء					
6. الشعور بسرعة المضايقة والاستثارة					
7. الشعور بألم في القلب أو الصدر					
8. الشعور بالخوف في الأماكن المفتوحة أو الشوارع					
9. التفكير في إنهاء حياتك					
10. الشعور بعدم الثقة في معظم الناس					
11. فقدان الشهية للطعام					
12. الشعور بالرعب المفاجئ بدون سبب					
13. نوبات من الغضب لا تستطيع السيطرة عليها					
14. الشعور بالوحدة حتى عندما تكون مع الناس					
15. الشعور بعدم القدرة على إتمام أعمالك					
16. الشعور بالوحدة					
17. الشعور بالكآبة					
18. الشعور بعدم الاهتمام بالأشياء					
19. الشعور بالخوف					
20. الشعور بأن مشاعرك تُجرح بسهولة					
21. الشعور بأن الناس ليسوا لطيفين و لا يحبونك					
22. الشعور بأنك أقل قيمة من الآخرين					
23. الشعور بالغثيان واضطراب في المعدة					
24. الاحساس بأن الآخرين يراقبونك أو يتحدث الآخرون عنك					
25. أجد صعوبة في النوم					
26. القيام بالتأكد عدة مرات فيما تفعله					
27. أجد صعوبة في اتخاذ القرارات					
28. أشعر بالخوف من الركوب في الباص أو المواصلات العامة أو القطارات					

دائماً	غالباً	أحياناً	نادراً	مطلقاً	الى أي مدى عانيت من:
					29. الشعور بصعوبة في التنفس
					30. الإحساس بنوبات من السخونة والبرودة في جسمك
					31. الاضطرار إلى تجنب أشياء أو أماكن أو أنشطة لأنها تسبب لك الإحساس بالخوف
					32. الشعور بأن ذهنك خالي من الأفكار
					33. الشعور بالتميل أو الخدران في أجزاء من جسمك
					34. الإحساس بأنك تستحق العقاب على أخطائك
					35. الشعور بفقدان الأمل من المستقبل
					36. لديك مشكلة في التركيز
					37. الشعور بالضعف في أجزاء من جسديك
					38. الشعور بالتوتر أو الانفعال
					39. التفكير بالموت
					40. الشعور بالرغبة في ضرب أو جرح أو إيذاء شخص ما
					41. الشعور بالرغبة في تخريب وتكسير الأشياء
					42. الإحساس بالخجل في وجود الآخرين
					43. الشعور بعدم الراحة في وجودك وسط الحشود فمثلاً عند التسوق أو حضور فيلم في السينما
					44. عدم الشعور بالقرب من أي شخص آخر
					45. الشعور بنوبات من الخوف أو الهلع
					46. الدخول في كثير من الجدل والمناقشات
					47. الشعور بالعصبية عندما تكون وحيداً
					48. الشعور بأن الآخرين لا يعطونك ما تستحق من ثناء وتقدير على أعمالك وإنجازاتك
					49. الشعور بالتوتر لدرجة لا تتمكنك من الجلوس هادئاً
					50. الشعور بأنك عديم القيمة
					51. الشعور بأن الناس يستغلونك إذا أعطيتهم الفرصة لذلك
					52. الشعور بالذنب
					53. الشعور بأن هناك شيء خطأ في عقلك

**PedsQL-15**  
مقياس جودة الحياة للأطفال

التعليمات

هذا الاستبيان يتعلق بمدى الرضى عن الصحة والجوانب المحيطة بالأطفال للفئة العمرية ما بين 13 – 18 سنة.

أعزائي الأطفال، الرجاء قراءة الأسئلة التالية بتمعن. ضع دائرة حول الرقم الذي تراه مناسباً لك من خلال اختيارك لاحدى الخيارات:

0 إذا لم تكن مشكلة مطلقاً

1 نادراً ما كانت المشكلة

2 أحياناً تكن مشكلة

3 غالباً ما تكن مشكلة

4 دائماً كانت مشكلة

إذا لم تكن متأكد من الاجابات التي تريد اختيارها، حاول أن تختار الاجابة التي تلائمك أكثر والتي يمكن اعتبارها اجابتك الاولى.

لا يوجد أسئلة صحيحة أو خاطئة.

إذا لم تستطع أن تفهم أي سؤال، الرجاء اطلب المساعدة.

خلال الشهر الماضي، ما مقدار المشكلة بالنسبة اليك:

مطلقاً	نادراً	أحياناً	غالباً	دائماً	بالنسبة لصحتي وأنشطتي (أجد مشكلة في ...)
0	1	2	3	4	1. أجد صعوبة في المشي أكثر من خطوة واحدة
0	1	2	3	4	2. أجد صعوبة في الركض
0	1	2	3	4	3. أجد صعوبة في ممارسة الأنشطة الرياضية أو التمارين
0	1	2	3	4	4. أجد صعوبة في حمل الأشياء الثقيلة
0	1	2	3	4	5. أجد صعوبة في القيام بالأعمال المنزلية

مطلقاً	نادراً	أحياناً	غالباً	دائماً	بالنسبة الى مشاعري (أجد مشكلة في ...)
0	1	2	3	4	1. أشعر بالخوف والذعر
0	1	2	3	4	2. أشعر بالحزن والأسى
0	1	2	3	4	3. أشعر بالغضب
0	1	2	3	4	4. أشعر بالقلق مما سيحدث لي

مطلقاً	نادراً	أحياناً	غالباً	دائماً	كيف اتواصل مع الآخرين (أجد مشكلة في ...)
0	1	2	3	4	1. أجد مشكلة في التواصل مع المراهقين الآخرين
0	1	2	3	4	2. المراهقين الآخرين لا يريدون ان يكونون اصدقاء لي
0	1	2	3	4	3. المراهقين الآخرين يضايقونني

مطلقاً	نادراً	أحياناً	غالباً	دائماً	بالنسبة للمدرسة (أجد مشكلة في ...)
0	1	2	3	4	1. أجد صعوبة في الانتباه في الصف
0	1	2	3	4	2. انا أنسى بعض الاشياء
0	1	2	3	4	3. أجد صعوبة في متابعة وظائف المدرسة

ID# _____
Date: _____

# PedsQL<sup>TM</sup>

## Pediatric Quality of Life Inventory

Version 4.0 Short Form (SF15)

### TEEN REPORT (ages 13-18)

#### DIRECTIONS

On the following page is a list of things that might be a problem for you. Please tell us **how much of a problem** each one has been for you during the **past ONE month** by circling:

- 0 if it is **never** a problem
- 1 if it is **almost never** a problem
- 2 if it is **sometimes** a problem
- 3 if it is **often** a problem
- 4 if it is **almost always** a problem

There are no right or wrong answers.  
If you do not understand a question, please ask for help.

In the past **ONE month**, how much of a **problem** has this been for you ...

<b>ABOUT MY HEALTH AND ACTIVITIES (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. It is hard for me to walk more than one block	0	1	2	3	4
2. It is hard for me to run	0	1	2	3	4
3. It is hard for me to do sports activity or exercise	0	1	2	3	4
4. It is hard for me to lift something heavy	0	1	2	3	4
5. It is hard for me to do chores around the house	0	1	2	3	4

<b>ABOUT MY FEELINGS (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. I feel afraid or scared	0	1	2	3	4
2. I feel sad or blue	0	1	2	3	4
3. I feel angry	0	1	2	3	4
4. I worry about what will happen to me	0	1	2	3	4

<b>HOW I GET ALONG WITH OTHERS (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. I have trouble getting along with other teens	0	1	2	3	4
2. Other teens do not want to be my friend	0	1	2	3	4
3. Other teens tease me	0	1	2	3	4

<b>ABOUT SCHOOL (problems with...)</b>	Never	Almost Never	Some-times	Often	Almost Always
1. It is hard to pay attention in class	0	1	2	3	4
2. I forget things	0	1	2	3	4
3. I have trouble keeping up with my schoolwork	0	1	2	3	4

# Brief Symptom Inventory BSI

“Here I have a list of problems people sometimes have. As I read each one to you, I want you to tell me **HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY**. These are the answers I want you to use. *[Hand card and read answers.] Do you have any questions?*”

0= Not at all  
1= A little bit  
2= Moderately  
3= Quite a bit  
4= Extremely

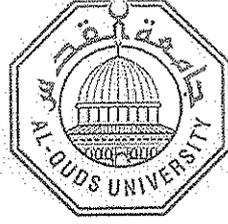
**DURING THE PAST 7 DAYS, how much were you distressed by:**

Psychological symptoms	0	1	2	3	4
01. Nervousness or shakiness inside.					
02. Faintness or dizziness.					
03. The idea that someone else can control your thoughts.					
04. Feeling others are to blame for most of your troubles.					
05. Trouble remembering things.					
06. Feeling easily annoyed or irritated.					
07. Pains in heart or chest.					

08. Feeling afraid in open spaces or on the streets.					
09. Thoughts of ending your life.					
10. Feeling that most people cannot be trusted.					
11. Lack of appetite.					
12. Suddenly scared for no reason.					
13. Temper outbursts that you could not control.					
14. Feeling lonely even when you are with people.					
15. Feeling blocked in getting things done.					
16. Feeling lonely.					
17. Feeling blue.					
18. Feeling no interest in things.					
19. Feeling fearful.					
20. Your feelings being easily hurt IS					
21. Feeling that people are unfriendly or dislike you IS .					
22. Feeling inferior to others.					
23. Nausea or upset stomach.					
24. Feeling that you are watched or talked about others.					
25. Trouble falling asleep.					
26. Having to check and double-check what you do.					
27. Difficulty making decisions.					
28. Feeling afraid to travel on buses, subways, or trains.					
29. Trouble getting your breath.					

30. Hot or cold spells.					
31. Having to avoid certain things, places, or activities because they frighten you.					
32. Your mind going blank.					
33. Numbness or tingling in parts of your body.					
34. The idea that you should be banished for your sins.					
35. Feeling hopeless about the future.					
36. Trouble concentrating.					
37. Feeling weak in parts of your body.					
38. Feeling tense or keyed up.					
39. Thoughts of death or dying.					
40. Having urges to beat, injure, or harm someone.					
41. Having urges to break or smash things.					
42. Feeling very self-conscious with others.					
43. Feeling uneasy in crowds, such as shopping or at a movie.					
44. Never feeling close to another person.					
45. Spells of terror or panic.					
46. Getting into frequent arguments.					
47. Feeling nervous when you are left alone.					
48. Others not giving you proper credit for your achievements.					
49. Feeling so restless you couldn't sit still.					
50. Feelings of worthlessness.					
51. Feeling that people will take advantage of you if					

you let them.					
52. Feelings of guilt.					
53. The idea that something is wrong with your mind.					



التاريخ: 2015/9/16

الرقم: ك ص 50/ع 2015

حضرة أ. القاضي حاتم البكري المحترم  
رئيس الجمعية الخيرية الإسلامية/ الخليل

الموضوع: مساعدة الطالبة فيدا مازن عزيز بنورة

تحية طيبة وبعد،،

تقوم الطالبة فيدا مازن عزيز بنورة برنامج ماجستير الصحة العامة/ كلية الصحة العامة/ جامعة القدس بإجراء بحث  
الرسالة بعنوان:

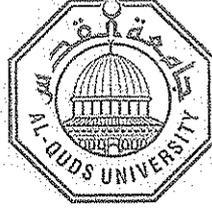
"الأثار النفسية والاجتماعية ومستوى المعيشة للأطفال الذين يعيشون في مؤسسات من عمر 12-18 سنة في منطقة  
جنوب بيت لحم".

وهي بحاجة إلى بيانات بعدد جميع الأطفال الذين لديهم والدين والذين ليس لديهم والدين الملتحقين في الجمعية للحصول  
على بيانات ومعلومات عن عدد الأطفال الموجودين في المؤسسة. نرجو من حضرتكم مساعدة الطالبة، علماً بأن  
الدراسة ستكون لأغراض البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام،،



نسخة: الملف



التاريخ: 2016/2/27

الرقم: ك ص ع / 2 / 7 / 2016

حضرة أ. القابي حاتم البكري المحترم  
رئيس الجمعية الخيرية الإسلامية

الموضوع: مساعدة الطالبة فيدا بنورة

تحية طيبة وبعد،،،

تقوم الطالبة المذكورة أعلاه بإجراء مشروع بحث رسالة الماجستير في الصحة العامة بعنوان:  
" تقييم نوعية الحياة والمشاكل النفسية لدى الأطفال الذين يعيشون في دور الرعاية البديلة  
والأطفال الذين يعيشون في المجتمع في منطقتي بيت لحم والخليل / فلسطين". وهي بحاجة الى  
تعينة استبائية الدراسة على الأطفال الداخلي والخارجي الذين يتراوح أعمارهم من 13-18 سنة في  
هذه المؤسسة. نرجو من حضرتكم تسهيل مهمة الطالبة والسماح لها بتوزيع الاستبائية على عينة  
الدراسة، علما بأن المعلومات ستكون متوفرة لدى الباحثة فقط وستستخدم لأغراض البحث العلمي  
فقط.

شاكرين لكم حسن تعاونكم،،،



نسخة: الملف



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الجمهورية الإسلامية الإيرانية - الخميني



خاص بمدرء الدوائر

الرقم: 2015/ع/295

التاريخ: 22/09/2015

الجمهورية الإسلامية الإيرانية - الخميني  
الرقم: 428.7/م/م.64  
التاريخ: 22-9-2015

حضرات السادة رئيس وأعضاء الجمعية الخيرية الإسلامية المحترمين

السلام عليكم ورحمة الله وبركاته

الموضوع: مساعدة الطلبة فيدا بنورة

الموضوع:

نرفق لكم كتاب الطلبة فيدا مازن عزيز بنورة الخاص بجمع بيانات عن طلاب الجمعية من أجل إجراء بحث الرسالة الخاصة بها بعنوان - الآثار النفسية والاجتماعية ومستوى المعيشة للأطفال الذين يعيشون في مؤسسات من 12-18 في منطقة جنوب بيت لحم.

واقبلوا فائق الاحترام

مدير العلاقات العامة

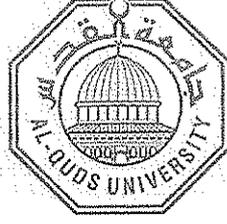
المسؤول:

التوقيع:

مشروعات الإدارة:

لا مانع بالتعاون مع رئيس قسم الأبحاث

2015-9-22



التاريخ: 2015/9/16

الرقم: ك ص ع ٩/٤ 2015

حضرة أ. عبدالله قحواوي المحترم  
مدير قرية الأطفال/ بيت لحم

الموضوع: مساعدة الطالبة فيدا مازن عزيز بنورة

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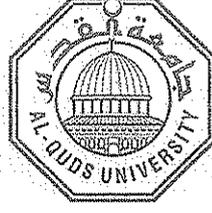
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وتفضلوا بقبول فائق الاحترام،،



نسخة: الملف



التاريخ: 2016/2/27

الرقم: ك ص ع / 218 / 2016

حضرة أ. عبدالله قحايي المحترم  
مدير قرية الاطفال/ بيت لحم

الموضوع: مساعدة الطالبة فيدا بنورة

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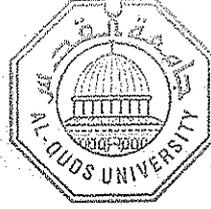
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فقط.

شاكرين لكم حسن تعاونكم،،،

خليل قحايي  
عميد كلية الصحة العامة  
Faculty of Public Health  
AL QUDS UNIVERSITY

نسخة: الملف

Al-Quds University  
Jerusalem  
School of Public Health



جامعة القدس  
القدس  
كلية الصحة العامة

التاريخ: 2016/3/19

الرقم: ك ص ع/ 24 / 2016

حضرة السيدة غريس مطر المحترمة  
مديرة مدرسة SOS

الموضوع: مساعدة الطالبة فيدا بنورة

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شاكرين لكم حسن تعاونكم،،،

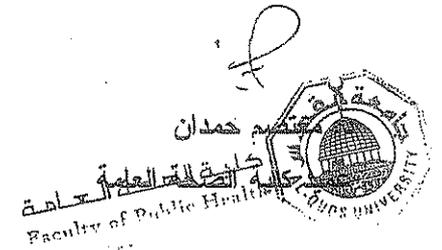
لا مانع من ذلك

مدرسة يرمون جالينوس  
شعبة الأطفال SOS  
بيت لحم



وتحريم اللقار لدراسة

الأرارة  
19/3/2016



نسخة: الملف

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