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Assessment of Quality of life of parents who have children with disability in Hebron area, Palestine

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Assessment of Quality of Life of Parents who have Children with Disability in Hebron area, Palestine

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Assessment of Quality of life of parents who have children with disability in Hebron area, Palestine

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Dedication

I would like to dedicate this work to my mother, my husband Fareed Al-Amleh, and my children Sajeda, Noor, Kamelia, Abd-Alminaem, Mahmoud and Muhammad and my brothers and sisters in their encouragement and stimulation throughout the duration of my writing up. Thanks all.

Signed:

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Mirfit Mahmoud Amleh

Date: 16 / 8 /2020

Declaration

I certify that this thesis submitted for the degree of Master is my own research, except where otherwise acknowledged, and that this thesis (or any part of the same) has not been submitted for higher degree to any other university or institution.

Signed:

مرفت محمود محمد العمله

Mirfit Mahmoud Amleh

Date: 16/ 8 /2020

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I am also very grateful to my children Sajeda, Noor, Kamelia, Abd-Alminaem, Muhammad and Mahmoud for their support, encouragement, stimulation, and valuable help. They gave me confidence from the beginning and thus gave me the ability to continue studying and working hard. Thanks, my love.

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Abstract

Background: The birth of a child with disabilities is a challenging event for parents and can have profound implications for the whole family. Raising children with disabilities affects parents' lives, their daily activities, and their well-being. Therefore, this will affect the quality of life of the parents (QOL). There is a need to assess the quality of life of parents of children with disabilities, especially in Palestine because of the high prevalence of children who suffer from a disability. This research explores an important topic well researched in western countries but not well researched in Arab world and in occupied countries as Palestine. It has significant global relevance in regard to parents of children with disabilities.

Objective: To assess the quality of life (QOL) in parents of children with disabilities, from their perception, aged from 0 -18 years old in the Hebron area.

Method: A cross-sectional study was conducted using a purposive sample, 179 parents of children with disabilities in the Hebron area between the ages of 0 and 18 years based on inclusion and exclusion criteria. Data were collected using the World Health Organization QOL-BREF and a socio-economic status questionnaire. Data was collected between the end of September 2019 and the end of December 2019.

Findings:

Analysis of parents' characteristics showed that 44.7% of the 179 participants were males, 70.9% of the participants aged from 30 to 49 years. However, 49.4% were from town, 42.7% were from city. Around half of participants had preparatory and high school education (27.4%, 25.7%, respectively). While 11.2% of participants were illiterate. Furthermore, the result indicates 23.6% of participants had no income, 21.9% of them their income less than 1000 NIS, and only 7.9% their monthly income more than 3000 NIS. 54.2% of the sample was not work at all. 44.8% of it was paid employed. 80.34% of the sample reported that they have no illness and only 2.81 have physical and psychological illnesses together.

57% of children with disabilities were males. Moreover, 64.2% of them their age from 10 to 18 years old. 32.63% have a multiple disability 29.24% of children have intellectual disabilities, 53.81% of the children with disabilities have a moderate degree of disabilities.

30.8% of participants rate their QOL as good and very good, 35.8 % responded neither poor nor good, and 33.5% answered poor and very poor. About satisfaction with their health 44.1% of them being satisfied and very satisfied, 32.4% stated that neither satisfied nor dissatisfied and 23.4% said dissatisfied and extremely dissatisfied. All health domains affected by the presence of children with disabilities noticed that the psychological domain least affected with the mean score of 55.4.

Moreover, no significant differences have been found between QOL of parents of children with disabilities and children’s gender, parents’ age, the number of children with disability, disability severity and types of disability (physical, visual, hearing, and intellectual disabilities or have multiple disabilities). While significant correlation has been found between parents’ QOL and parents' monthly income, parents’ education level, place of residence, parents’ physical illness, and children type of disability (speech disability).

Conclusion and Recommendations:

This study concluded that the presence of children with disability in the family negatively affected the quality of life of their parents. This section of society needs the support of society and the government to reduce the effects of having children with disability on their life. The findings of the study need more attention from parents, health care providers, society, government, and decision-makers.

تقيم جودة حياة والدي الاطفال ذوي الاعاقة في منطقة الخليل، فلسطين

اعداد الطالبة: ميرفت العملة

إشراف: دكتورة سلام الخطيب.

ملخص الدراسة

خلفية الدراسة:

إن ولادة طفل ذي إعاقة حدث مؤلم للعائلة ويمكن أن يكون له آثار عميقة على الأسرة بأكملها. ومن اهم الاثار ان تربية الأطفال ذوي الإعاقة تؤثر الإعاقة، حياة الوالدين وأنشطتهم اليومية ورفاهتهم. وبالتالي يؤثر على نوعية حياة الوالدين .

هنالك حاجة لتقييم نوعية الحياة آباء الأطفال ذوي الإعاقة، وخاصة في فلسطين بسبب الانتشار الواسع لعدد الأطفال الذين يعانون من إعاقة .موضوع هذا البحث تم بحثه جيدًا في الدول الغربية ولكن لم يتم بحثه جيدًا في العالم العربي وفي البلدان المحتلة مثل فلسطين. لهذا البحث أهمية عالمية كبيرة فيما يتعلق بآباء وامهات الأطفال ذوي الإعاقة.

الهدف:

تقيم جودة حياة والدي الأطفال ذوي الإعاقة الذين تتراوح أعمارهم من 0الى 18 سنة في منطقة الخليل.

منهجية الدراسة:

تم استخدامُ المنهجِ الكمي المقطعي من أجلِ تحقيقِ هدف الدراسة، حيث تم جمع البيانات خلال الفترة ما بين الاول من سبتمبر 2019 الى اواخر ديسمبر 2019, شملت العينة 179 من اباء وامهات الأطفال ذوي إعاقة في منطقة الخليل الذين تتراوح أعمارهم بين 0 و18 سنة على أساس معايير الاشتمال والإقصاء. من خلال استخدام منهجية العينة القصدية لاختيار المشاركين. جمعت البيانات باستخدام استبانة تتكون من قسمين قسم يشمل البيانات الديموغرافية للإباء والاطفال ذوي الاعاقة .

اما المعلومات عن جودة حياة الوالدين فاستخدم لتقيمها استبانة منظمة الصحة العالمية المختصر لتقيم جودة الحياة، الذي يتكون من 26 سؤال، ويقيس 4 مجالات من مجالات الحياة (الجسدية، النفسية، البيئية واخيرا الاجتماعية).

استخدم برنامج الرزم الاحصائية للعلوم الاجتماعية لتحليل العبنة وتم التحليل عن طريق اختبار تحليل التباين الأحادي، واختبار (ت) التكرار والوسط الحسابي، ومعمل الارتباط، ومعامل سبيرمن.

نتائج الدراسة:

تحليل صفات الوالدين أظهر أن 44.7% من 179 مبحوث كانوا ذكورا. 70.9% من العينة كانت أعمارهم بين 30-49 سنة. 49.4 يسكنون في بلدة، و42.7% يقطنون في مدنية. المستوى التعليمي لما يقارب من نصف العينة كان إعدادي وثانوي (27.4% و25.7%, على التوالي). 11.2% من العينة يعتبرون أميون. كذلك تظهر النتائج أن 23.6 % لا يملكون دخل و21.9% من العينة دخلهم أقل من 1000 شيكل فقط 7.9% من العينة دخلهم يزيد عن 3000 شيكل. وأن ما يقارب من نصف العينة لا يعملون نهائيا، حيث فقط 44.8٪ منهم يعملون بأجر.

أفاد 80.34% من العينة بأنهم لا يعانون من أي أمراض جسدية أو نفسية، بينما 2.81 % يعانون من أمراض جسدية ونفسية معا .أظهرت نتائج العينة أن 57% من الأطفال ذوي الإعاقة هم من الذكور. و64.2% منهم تتراوح أعمارهم بين 10 و18 سنة. 32.63% لديهم إعاقة متعددة، أما 29.24%من الأطفال كان لديهم إعاقات ذهنية، و53.81% من الأطفال ذوي الإعاقات لديهم درجة متوسطة من الإعاقات.

قام 30.8٪ من المشاركين بتقييم جودة حياتهم على أنها جيدة وجيدة جدًا. 33.5٪ قيموها أنها سيئة وسيئة جدا. وعن الرضا عن صحتهم 44.1٪ منهم راضون وراضون للغاية، 32.4٪ غير راضون ولا راضون و23.4٪ قالوا أنهم غير راضين وغير راضين للغاية. أظهرت النتائج أن جميع مجالات مقياس جودة الحياة تتأثر بوجود الأطفال ذوي الإعاقة وأن المجال النفسي كان الأقل تأثراً بمتوسط الدرجة 55.4.

وجدت نتائج هذه الدراسة إلى أن العلاقة بين جودة حياة والدي الأطفال ذوي الإعاقة ليست ذات دلالة إحصائية بسبب نوع جنسهم أو نوع جنس أطفالهم ذوي الإعاقة، وعمر الوالدين، وعدد الأطفال ذوي الإعاقة، ومستوى شدة الإعاقة وأنواع الإعاقة (البصرية والسمعية والذهنية والجسدية).

وكذلك خلصت النتائج إلى وجود علاقة ذات دلالة إحصائية بين جودة حياة الوالدين والدخل الشهري للوالدين، ومستوى تعليم الوالدين، ومكان الإقامة، والمرض الجسدي للوالدين، ونوع الإعاقة للأطفال (الإعاقة الكلامية).

الخلاصة:

خلصت هذه الدراسة ان وجود اطفال ذوي اعاقة في العائلة أثر سلبيا على جودة حياة الوالدين. وان هذه الشريحة من المجتمع تحتاج الى الدعم من المجتمع والحكومة لتقليل الآثار المترتبة عن وجود الاطفال ذوي اعاقة. النتائج التي توصلت اليها الدراسة تحتاج الى مزيد من الاهتمام من جانب الوالدين ومقدمي الرعاية الصحية والمجتمع والحكومة وصانعي القرارات.

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Abbreviations

WHO	World Health Organization
QOL	Quality of life
HRQOL	Health related quality of life
WHOQOL- BREF	World Health Organization Quality of Life- BREF
SF-36	Short-Form Health Survey
WHOQOL Group	World Health Organization Quality of Life Group
SPSS	Statistical package for Social Science
UNICEF	United Nations International Children's Emergency Fund
UN	United Nations
ICF	International Classification of Functioning, Disability and Health
PCBS	Palestinian Central Bureau of Statistics
MOH	Ministry of Health
MCCPs	Mothers of Children with Cerebral Palsy.
CP	Cerebral Palsy
STAI	Spielberger State Trait Anxiety Inventory
GMFCS	Gross Motor Function Classification System
BDI	Beck Depression Inventory
BAI	Beck Anxiety Inventory
DUREL	Duke University Religion Index
SES	socio-economic status
CDC	Center of Disease Prevention and Control
OECD	Organization for Economic Co-operation and Development
WHOQOL-100	World Health Organization Quality of Life -100 Instrument

Chapter One

Introduction

Chapter one

1.1 Introduction

This chapter will introduce the aim and objectives of this research, research questions, problem justification, and problem statement and introduce background about the disabilities and the quality of life concept.

1.2 Background

The birth of a child with disability is a problem that all societies suffer from and which greatly affects the quality of family life, and in particular parents (Boehm, Carter, & Taylor, 2015; Glinac, Matović, Delalić, & Mešalić, 2017). This disability is likely to persist and lead to functional limitations in three or more of the following areas: self-care, receptive and expressive language, learning, mobility, self-direction, the ability to live independently and financial self-sufficiency (Cavkaytar, Batu, & Cetin, 2008; Heiman, 2002; Wikler, Wasow, & Hatfield, 1981). Therefore, these children also need special long-term efforts from society and government (Azaula et al., 2000; Leonard, Johnson, & Brust, 1993).

Previous studies have shown that the challenges faced by parents of children with disabilities are continuous and increasing as a result of children's development, the aging of parents and their vulnerability (Hsieh, Huang, Lin, Wu, & Lee, 2009; Adegoke, Adenuga, Olaleye, & Akosile, 2014; Glinac, Matović, Delalić, & Mešalić, 2017; Barros, de Gutierrez, Barros, & Santos, 2019; Alwhaibi, Zaidi, Alzeiby, & Alhusaini, 2020). Consequently, the presence of these children may affect the quality of life of the parents in general. Caring for a child with disability may have physical, psychological, and emotional consequences that may lead to psychological and health problems for parents (Hastings, 2002; Davis & Gavidia-Payne, 2009; Sajedi, Alizad, Malekkhosravi, Karimlou, & Vameghi, 2010; Uskun & Gundogar, 2010).

The presence of children with disabilities in the family is not always a burden on family members, as some studies have found that having child with disability has a positive or neutral impact on the family unit (Fein & Dunn, 2007; Turnbull et al., 2011) because their presence can serve to enhance and enrich relationships within a family (Brobst, Clopton, & Hendrick, 2009).

The quality of life plays a major role in research and studies of psychology. So that the quality of life has become a modern concept associated with studies of positive psychology, which is one of the main variables of the personality and a primary goal of the person who seeks to achieve it, and leads to contentment, joy, happiness and self-fulfillment, and thus leads to a positive direction of life.

The World Health Organization has defined Quality of Life (QOL) (1993) as depicting individuals about their place in life in the context of cultural systems and the values in which they live and in relation to their goals, expectations, and standards. It is a broad concept influenced in a complex way by a person's physical health, mental state, level of independence, social relationships and personal beliefs and their relationship to the salient features of their environment (WHO, 1993).

According to the Palestinian Central Bureau of Statistics for the General Census of Population, Housing and Establishments (2018), the number of the Palestinian population with disabilities in Palestine is 93000 individuals. About 20% of them are children who will first influence family life, especially their parents. According to the results, in the Hebron Governorate alone, there are about 2140 children from this point (PCBS, 2018). The main aim of this study was to assess the quality of life of the parents of children with disabilities.

1.3 Study Justification

The World Health Organization (WHO) has estimated that about 15% of adults worldwide have moderate disability, while 2-3% has severe disability. For children, 5% of children worldwide (93 million) have moderate disability, while 0.7% (13 million) has severe disabilities (WHO, 2011).

According to the Population Housing and Establishments Census (2018), 0.9% of the children have at least one form of disability. The main cause of disability among children in Palestine is congenital (genetic) causes which ranked first by 45.5%, followed by causes related to pregnancy and childbirth 23.3% , then 21.1% for pathological causes 25.3% of the children suffer from communication disability followed by mobility disability and use of hands 25.1%, then remembering and Concentration 19.7% (PCBS, 2018).

The birth of a child with a disability is a traumatic event for parents and affects the entire family (Glinac, Matović, Delalić, & Mešalić, 2017). Parents of children with disabilities blame themselves more, and this issue influences their occupational, social, and emotional life (Sen & Yurtsever, 2007). And also lead to social isolation of the family and reduce their participation in social activities (Gorter, Ketelaar, Rosenbaum, Helders, & Palisano, 2009; Laurvick et al., 2006; Sen & Yurtsever, 2007). They also experience more physical and mental psychological health problems, and this can affect negatively their QOL (Borzoo, Nickbakht, & Jalalian, 2014; Prudente, Barbosa, & Porto, 2010; Uskun & Gundogar, 2010; Bumin, Günal, & Tükel, 2008; Gogoi, Kumar, & Deuri, 2017).

According to my knowledge, the studies that examine the quality of life for parents of children with disabilities in the Arab world are few and there may be no study in Palestine in which this topic was discussed. In Palestine because of occupation, we need more attention on the QOL for those families. There is a gap in knowledge because of the limited study that addressed QOL of parents in Palestine. In this study, we will assess levels of quality of life (QOL) of Parents who have children with disabilities. From the researcher knowledge and through searching on internet sites using the keys words about the quality of life of parents of children with disabilities in the Hebron area found that the study is the first study that addressed the QOL among parents of children with disability in Hebron area. Therefore, this study will fill the gap as it could reveal important aspects needs, challenges that affect their QOL and their lives. And it may help policy makers and managers in the Palestinian Ministries in planning the services for those families in the Palestinian community. This study will also acknowledge the types of disabilities that have the most negative impact on the (QOL) of families having a child with disability.

This study can also be helpful in finding positive strategies that help parents of children with disabilities on how to deal with their children.

The results of the study can also be used to benefit from the following:

- Providing the university libraries with the results of the study.
- Providing scientific research that can be the starting point for another research in the same field.

1.4 Problem statement

Having a child in the family is a happy event but the day it is revealed disability in this child has a disruptive effect and leads to a fundamental change in the psychological, social, and economic path of the family. The born of the child with disability is a traumatic event in the family anywhere in the world, as well as in Hebron, Palestine.

Sen & Yurtsever, (2007) found that parents of child with disability blame themselves and this issue influences their occupational, social, emotional life and reduce their participation in social activities. They also experience more physical and mental health problems, and this can affect negatively their QOL (Borzoo, Nickbakht, & Jalalian, 2014; Prudente, Barbosa, & Porto, 2010).

According to the Palestinian Central Bureau of Statistics for the General Census of Population, Housing and Establishments (2018), the number of the Palestinian population with disabilities in Palestine is ≈ 93000 individuals. About 20% of them are children who will first influence family life, especially their parents. According to the results, in the Hebron Governorate alone, there are about 2140 children (PCBS, 2018; PCBS, 2019).

1.5 Study Aim

The main of the study was to assess the level of quality of life (QOL) of Parents who have children with disabilities in the Hebron area Palestine.

1.6 Study Objectives

1. To assess the level of quality of life and its domains (Physical Health, Psychological, Social Relationships and Environment) in parents of children with disabilities, from their perception, in the Hebron area, Palestine.
2. To examine potential association between QOL and socio-demographic characteristics (child's (gender, age, disability severity (sever, moderate, and mild), and disability type), and parent’s (age, gender, the place of residence, job, marital status, educational level, monthly income, the number of children with disabilities parents have, and illness).
3. To measure the relationship between the domains and the quality of life.

1.7 Research questions

I) How much parents of children with disability rate their quality of life?

II) How much are parents of children with disability satisfied with their health status?

III) How much are parents of children with disability rate their (physical, psychological, social and environment) life domains?

IV) What is the relationship between the QOL of parents of child with disability and their socio-demographic data (age, gender, the place of residence, job, marital status, educational level, monthly income, the number of children with disabilities parents have, age & gender of the children with disability, the disability severity (sever, moderate, mild), and the type of the disability)?

V) What is the relationship between the QOL of parents of child with disability and their illness (physical and psychological illness)?

VI) What is the relationship between the domains and the quality of life?

1.8 Research Hypotheses

1. There is no statistically significant effect of parents' socio-demographic data (age, gender, the place of residence, job, marital status, educational level, monthly income and the number of children with disabilities parents have) on the quality of life for parents of children with disabilities in the sample at a level of $\alpha \leq 0.05$.
2. There are no statistically significant effects of the physical and psychological illnesses of the parents on the quality of life for parents of children with disabilities in the sample at a level of $\alpha \leq 0.05$.
3. There are no statistically significant effects of children's with disability socio-demographic data (age, gender of the children with disability, the type of the disability and the disability severity (sever, moderate, mild)) on the quality of life for parents of children with disabilities in the sample at a level of $\alpha \leq 0.05$.

1.9 Operational definitions

Quality of life (QOL)

Is a broad-ranging concept, World Health Organization Quality of Life Group (WHOQOL Group), defined it as the individual's perception of their position in life in the context of the culture and the value system they inhabit, in relation to expectancies, patterns and concerns (WHO, 1993).

Parent

Is a person whose gamete resulted in a child, parent in the study referring to mother and father of child with disability? https://en.wikipedia.org/wiki/Parent

Child

The word child refers to a person aged between the ages of zero and 18 years (UNICEF, 2010).

Disability

The International Classification of Functioning, Disability and Health (ICF) views disability as an umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (WHO, 2011).

Psychosocial disabilities

The term refers to the disabilities of children with either diagnosed or perceived mental health conditions and/or intellectual impairments (WHO, 2015).

Intellectual disabilities

Refers to a state of arrested or incomplete development of mind, which means that the person can have difficulties understanding, learning, and remembering new things. It is known as learning disabilities, learning difficulties, and formerly as mental retardation (WHO, 2015).

Mental health condition

A health condition characterized by alterations in thinking, mood or behavior associated with distress or interference with personal functions (WHO, 2015).

1.10 Summary

- In this chapter an introduction was presented on the topic, what does the quality of life mean, why it is important and why the researcher wanted to shed light on this topic? Also, an overview of the quality of life of parents for children with disabilities was provided.

- Problem justification, problem statement, aim of the research and objectives, research questions, and definition of terms were addressed.

Chapter two
Literature Review

Chapter two

This chapter will discuss disabilities, models of disabilities, quality of life and review previous studies that addressed quality of life of parents of children with disabilities. Electronic sites such as google scholar, Psch Info and Pub med were searched using the following keywords: Disability, Children with Disabilities, Palestinian and International Statistics, WHOQOL- BREF, Quality of Life, Parents' Quality of Life, Prevalence of Disability in the Hebron area and other related words. Many websites and articles were obtained, then 200 studies were summarized and reviewed. 30 studies were chosen after reviewing the abstract and the whole study. The studies were chosen and extracted in regard to the study objectives.

2.1 Disability and its related definitions

It is difficult to define the concept of disability precisely because of a wide range of conditions, be they bio-psychosocial or those associated with the perception of disability in a cultural context. It is a complex term that includes definitions of multiple perspectives. There is no universally agreed way to define and understand disability, and it is continuously changed, it looks completely different from the viewpoint of different models.

First it is important to understand the words “impairment,” “disability,” and “handicap,” because they are often used interchangeably, even they have very different meanings.

There are many definitions of disability over past years; in 1983 the United Nations (UN) put the definition of impairment, handicap, and disability. Impairment is any loss or abnormality in psychological, physiological, or anatomical structure or function. Disability which is a result of impairment means any lack or restriction of performing any activity which is normal for human. Handicap is resulting from impairment or disability mean a disadvantage for a person that limits or prevents them of doing things in normal manner concerning their age, sex, culture, and social variables (United Nations [UN], 1983).

The Americans with Disabilities Act of 1990 defined a person with disability as one who has a physical or mental impairment that substantially limits one or more major life activities (Morin, 1990).

According to the International Classification of Functioning, Disability and Health ICF (2001), the term disability is an umbrella term for impairments, participation restrictions and activity limitations, which was also adopted by (WHO). Disabilities include long-term physical, mental, intellectual, or sensory impairments (WHO, 2001).

The information above indicates that the current trend is the systematic recognition of disability, considering the psychological and physical factors and environmental factors surrounding people, this is what the World Health Organization (2015) considered. Hence, it recognized disability as a complex phenomenon, an interaction between the physical and psychological characteristics of the person with disability and the characteristics of his society in which he lives (WHO, 2015).

2.1.1. Models of disability:

The word model refers to a hypothetical description of a complex entity or process, it is not the real world but just a human construct to help us better understand the real-world systems (What is a Model, 2009).

There are various models of disability and various ways to conceptualize what "disability" means. Models of disability are tools for defining impairment and for providing a basis upon which government and society can devise strategies for meeting the needs of people with disability. They are useful framework for gaining an understanding of disability issues, as well as for the perspective held by those who create and apply models. Each model gives a different understanding of disability and persons with disabilities.

Medical model

This model viewed disability as a medical issue that can be cured or relieved through medical interventions (WHO, 2001).

Social model

Oliver (1981:28) is a person with disability, activist and lecturer, who also coined the phrase 'social model of disability', stresses the need to focus on the social aspects of disability, especially how 'the physical and social environment impose limitations upon certain categories of people .'

The 2006 UN Convention on the Rights of Persons with Disabilities viewed disability as the outcome of interactions between health conditions and individual's physical, social, and environment that hinder their effective participation in society. The Disability results from the interaction of a person with a disability with society if society creates barriers to the participation of persons with disabilities (UN, 2006; WHO, 2001).

Biosocial model (BIO-ICF)

BPS-ICF model, a tool to measure biopsychosocial functioning and disability within ICF concepts. The biosocial model according to the ICF seeks to determine a person's disability status on three domains (body functioning then structures, activity, participation). These three domains are influenced by personal factors, such as gender and age, mental and emotional status, environmental factors, such as accommodation for impairment in the body functioning domain, and health condition, such as disorders or diseases. Therefore, disability in the ICF arises out of limitations and restrictions due to the interaction of body structure and functioning and unaccommodating environment influenced by personal factors and health condition (WHO, 2002).

2.1.2. Classifications of Disability:

According to the World Health Organization (WHO, 2013), disability classified into:

- Mild disability: if present less than 25% of the time, rarely occurred in the last thirty day and with a tolerable intensity.
- Moderate disability: if it presents between 25% and 50% of the time, sometimes interferes with daily life and with intensity.
- Severe disability: if present between 50% and 95% of the time, partially alters daily life with an intensity that occurs frequently.
- Complete disability: if the problem is present more than 95% of the time, and with an intensity that totally affect daily life.

2.1.3. Types of disabilities (PCBS, 2011):

Intellectual disability

It is disabilities relates to impairments in the ability to learn, solve problems, make decisions and perform certain daily life skills compared to others of the same age, and can include difficulties in learning to read, write and calculate.

Mental disability

Relates to behavioral or psychological impairments. A group of disease that affect the mind or brain, affect the way a person thinks, feels, and acts. Include depression, schizophrenia, anxiety, and personality disorders.

Physical disability

It is manifested as significant difficulty in the performance of functions such as: moving or mobility, like walking, climbing stairs, standing; body movements such as reaching, crouching, kneeling.

Sensory disability

Relates to hearing and vision impairments. Speech impairment is also included under sensory, in that it makes communication difficult, although technically it could be viewed as a manifestation of any of the other main disability types.

2.1.4. Worldwide prevalence of disability:

In the general population, physical disability is the most prevalent, then vision disabilities, after that hearing disabilities. While in the children, mobility disability is the most prevalent type, followed by sensory disabilities, and then Intellectual and learning disabilities. About 15% of adults worldwide have moderate disability, while 2-3% has a severe disability. For children 5% of children worldwide (93 million) have a moderate disability, while 0.7% (13 million) has a severe disability (WHO, 2011).

2.1.5. Prevalence of disability in Arab countries:

The Economic and Social Commission of Western Asia and the League of Arab States (2014) collected officially available data from countries in the Arab region. Fifteen of these countries reported disability prevalence of less than 3% (see Figure 2.1).

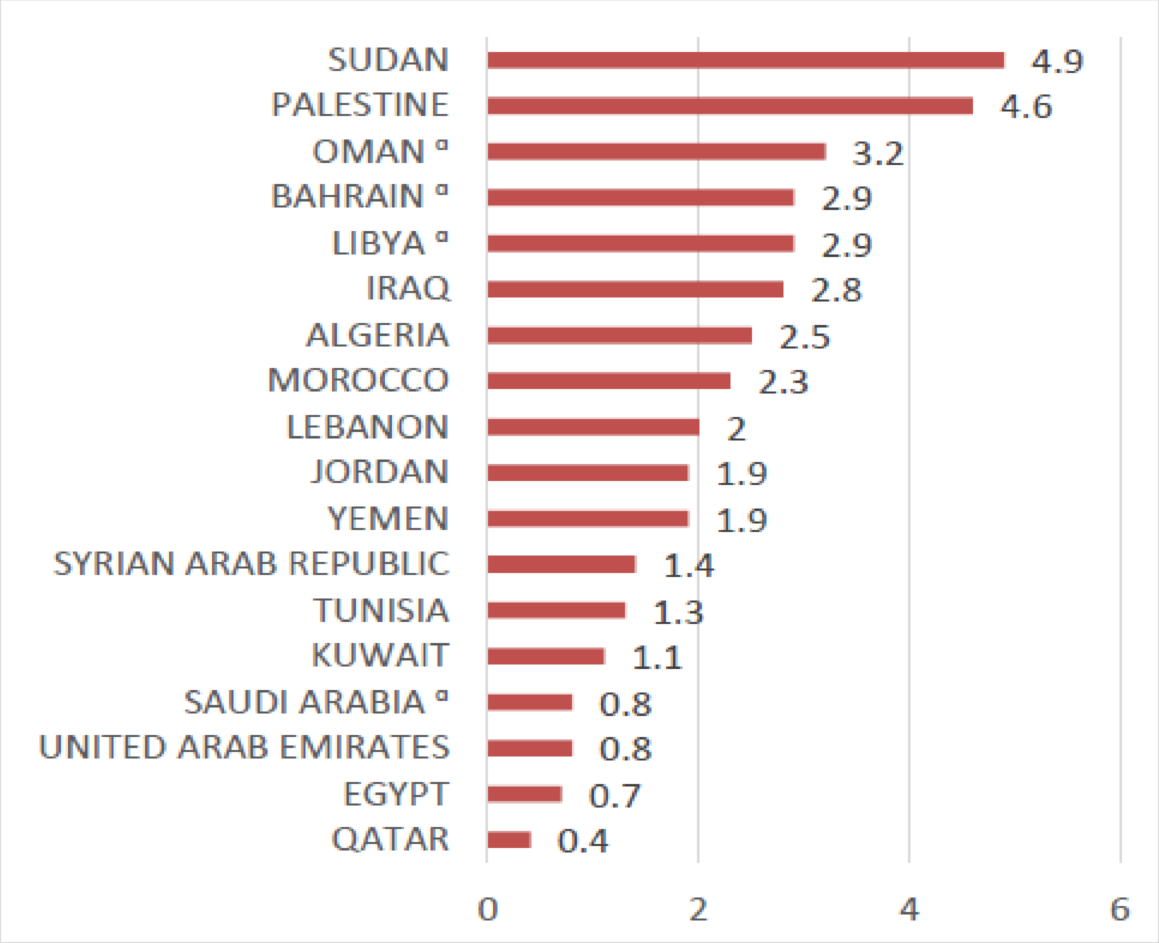

Figure 2.1: Prevalence of disability in countries in the Arab region (% of total population). (Source: Economic and Social Commission of Western Asia and the League of Arab States, 2014).

2.1.6. Prevalence of disability in Palestine:

According to the Population, Housing and Establishments Census (2019), number of persons with disabilities in Palestine is 93,000 persons which constituted 2.1 % of the total population, 48 % is in the West Bank. And 52 % of them are in the Gaza Strip, 51% of the total persons with disabilities are with mobility disability. 20 % of persons with disabilities are children under 18 years of age. The percentage of male children was 21%, which is higher than present in females (18%) in the same age group. The number of persons with disabilities in Palestine in urban areas reached 69,242, which represented 75% of the total number of persons with disabilities, 13% of persons with disabilities live in the rural areas compared to 12% live in the camps of Palestine (PCBS, 2019). Table (2.1) shows percentage of disabilities among children.

Table 2.1: Percentage of children with disabilities in Palestine (PCBS, 2019)

Population with disability	Percentage
Persons with disability in Palestine	2.1% of total population ≈ 93000 persons
With mobility disability	51% of the total persons with disabilities
In West Bank	48% of the total number of persons with disability
In Gaza	52% of the total number of persons with disability
In urban areas	75% of the total number of persons with disability
In rural areas	13% of the total number of persons with disability
In camps	12% of the total number of persons with disability
children under 18 years of age with disabilities	20% of person with disability 21% of children with disabilities are male 18% of children with disabilities are female

2.2 Quality of life

2.2.1. History of Quality of life:

The term "quality of life" first appeared in 1920, even though, it was not announced until the 1960s in North America. From 1966 to the present, researchers began to measure the quality of life. Over the years, QOL has become a relevant concept in various stages of the life cycle from childhood to old age, and in various areas of life from education to politics (Galloway, Bell, Hamilton, & Scullion, 2006).

In 1977 the “Quality of Life" began to be a key word in the titles of medical subjects in the computer research system of the American National Library of Medicine (Wood-Dauphinee, 1999)

2.2.2. What is Quality of Life?

There are many definitions of QOL in literature. Some define it as the degree of satisfaction within the physical, psychological, social, activity, material, and structural area (Hörnquist, 1982). Others defined QOL as the subjective evaluation of good character of life as a whole (Van Knippenberg & De Haes, 1988). Likewise, QOL is characterized by the individual’s satisfaction with the current living conditions through his or her everyday life (Millere & Senkane, 2014).

Lehman, (1988) indicated that the QOL is of two major components, an objective, and a subjective dimension. Subjective QOL can be assessed as the satisfaction with life in multiple domains while objective QOL is related to external life conditions such as mobility, cognitive and functional impairments (Hansson, 2006).

There is agreement that QOL is a multi-dimensional and subjective concept. Quality of Life is a broad-ranging concept and important health indicator. World Health Organization Quality of Life Group (WHOQOL Group), defined it as the individual's perception of their position in life in the context of the culture and the value system they inhabit, in relation to expectancies, patterns and concerns (WHO, 1993).

One of the main goals of all countries is to improve QOL for people and their well-being (Prudente, Barbosa, & Porto, 2010). Therefore, the use of quality of life has become widely used in health studies to measure health status and identify factors affecting quality of life. Consequently, this help to enhance care, treatment, and rehabilitation programs (Soh et al., 2013). In recent years, there has been an increased focus on quality of life (QOL) as an important outcome in clinical and interventional studies that have gone beyond traditional indicators such as mortality and morbidity (Fairclough, 2010; Al-Shehri, Taha, Bahnassy, & Salah, 2008; Alshubaili, Ohaeri, Awadalla, & Mabrouk, 2008; Awadalla et al., 2007). Additionally, in the general population (Nedjat, Montazeri, Holakouie, Mohammad, & Majdzadeh, 2008; Sabbah, Drouby, Sabbah, Retel-Rude, & Mercier, 2003; Van Esch, Den Oudsten, & De Vries, 2011).

The concept is not simply absence of disease, but health is a state of complete mental, physical, and social well-being (WHO, 1993). Because this definition of quality of life focuses upon respondent's perceived quality of life, it provides the effects of disease and health and is not expected to give a means of measuring in any detailed fashion symptoms, diseases, or conditions. Therefore, it is important to use psychologically sound assessment tools that have cross-cultural viability, as well as to make the results comparable across countries (Skevington, Lotfy, & O'Connell, 2004).

The short version of the WHO QOL Tool WHOQOL-BREF was used in the current study. It is of the most important tools used, for the following reasons:

First, it was developed simultaneously in various cultures, and the elements were framed in terms of neutral culture, thus the problem of applying a detailed questionnaire in one culture was overcome in a different culture.

Second, it includes contextual life factors that are widely evaluated and not generally seen to be related to health only (Katschnig, 2006). Therefore, it is a generic tool that assesses Health Related QOL (HRQOL), social and environmental issues and self-welfare.

As well, it has been adopted in Netherlands, Poland, Bangladesh, Thailand, India, Australia, Japan, United State of America, Zimbabwe, Croatia, Turkey, Iran and many more other countries (Group, W., 1994; Nedjat, Montazeri, Holakouie, Mohammad, & Majdzadeh, 2008). The instrument is valid and reliable in Arabic cultures (Ohaeri, & Awadalla, 2009). Likewise, the instrument is used in many Arabic culture as in Kingdom of Bahrain (Al Ansari & Jahrami, 2018), in Jorden (Dalky, Meininger, & Al-Ali, 2017).

In current study, the definition by World Health Organization (WHO) will be adopted. Hence, the Quality of Life is an individual’s perception of his or her position in life in the context of the culture and in relation to his/her lives, and in relation to his/her goals, expectations, standers, and concerns.

2.3 Quality of life of parents of children with disabilities

In this chapter the literature review about the parents QOL associated with the variables of interest of the present study will be introduced.

The disability of the child affects the children and their family also (Krajnc & Sršen, 2017; Parisi et al., 2016). Parents often react to the birth of a child with disability with shock, rejection, and refusal to diagnose the child, and there may also be feelings of helplessness, guilt, and fear of the unknown future (Cavkaytar et al., 2008; Heiman, 2002; Wikler et al., 1981). It was found that parents of children with disabilities faced many psychological problems (stress, anxiety and depression) in their daily lives (Faerstein, 1981; Tobing & Glenwick, 2002; Sajedi, Alizad, Malekkhosravi, Karimlou, & Vameghi, 2010; Al Ansari & Jahrami, 2018). Moreover, they also may experience psychological disorders similar to those experienced by suicidal individuals when they know the diagnosis of their child (Elllis & Hirsch, 2000).

Children with disabilities need more attention and special daily care, from their family. This can affect the family and lead to physical and psychological stress on the family regardless of the type of disability that their children have (Uskun & Gundogar, 2010). Studies have found that parents of children with disabilities reported more child-related stress than parents of children with normal development (Bumin, Günal, & Tükel, 2008; Cavkaytar, Batu, & Cetin, 2008; Gogoi, Kumar, & Deuri, 2017; Uskun & Gundogar, 2010).

Increasing the stress among parents of children with disabilities is because of several factors include child factors such as age, type and severity of disability, and presence of emotional disorders, parental factors, such as burdens of caregiving and style of coping; social support and socio-economic status (Emerson & Llewellyn, 2008; Hastings, 2002).

Measuring the level of depression among parents of children with disabilities is an important measure for therapists and other professionals to consider when providing treatment to a child or family (Sajedi, Alizad, Malekkhosravi, Karimlou, & Vameghi, 2010; Smith, Innocenti, Boyce, & Smith, 1993).

Studies have shown in case of the psychological adaptation of parents with children with disabilities that these families face a number of challenges, especially when a child with disability has more than one disability at the same time (Achilles, McLaughlin, & Croninger, 2007).

A study on mothers of children with cerebral palsy lives found that their stressors summarized as: role restriction, feelings of isolation, poor support from others, limited time and freedom, marital relationship, maintaining social relationships, sleep disruption, and financial burden (Davis & Gavidia-Payne, 2009). Meanwhile, family that have children with disabilities may affirmed the resilience, strength, and positive parental feelings toward their child (Heiman, 2002; Cuskelly, Hauser-Cram, & Van Riper, 2008; Hodapp, 2008).

Quality of life of parents of children with disabilities is affected by many factors some concern parent and other for child and disabilities. Many studies investigated the sociodemographic data of parents and children with disabilities and what are the relationship between those and the quality of life of parents.

Heiman (2002) conducted a qualitative study examined the perspectives of parents of children who are living at home with physical, intellectual, and learning disabilities. 32 parents were interviewed as to past, present, and the modes of coping. The questions examined parents’ responses to the child’s diagnosis; patterns of adjustment; family support and services used by parents; and parents’ feelings and future expectations. It was found that most of the parents in this study reacted in an emotionally and physiologically negative way to the diagnosis of their child’s disability. Also had to make changes in their social life and expressed high levels of dissatisfaction. The majority of the sample expressed the need for a strong belief in the child and in the child’s future, an optimistic outlook, and a realistic view and acceptance of the disability.

Leung & Li-Tsang (2003) conducted a cross-sectional study investigated the QOL of parents who have children aged from 6 to 12 years without or with developmental disabilities (cerebral palsy, mental retardation, Down syndrome, and developmental delay). The instrument used was World Health Organization Quality of Life Measure Abbreviated version (WHO-QOL BREF) tool.

They found that parents of children with developmental disabilities scored lower in overall QOL and for all four domains (physical health, psychological health, social relationships, and environment). They found significant differences between the two groups of parents in the social and environmental domains of QOL. Parents of children with lower disabilities level seemed to have a higher QOL. For parents of child with disability, the functional independence of their children was significantly correlated with their QOL (Leung & Li-Tsang, 2003).

Ones, Yilmaz, Cetinkaya, & Caglar (2005) conducted a prospective, case control study to assess the Quality of Life and psychological status of Mothers of Children with Cerebral Palsy (MCCPs). Gross Motor Function Classification System (GMFCS) was used for the children with cerebral palsy. 46 MCCPs and the mothers of 46 healthy children were included. Nottingham Health Profile–1, Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) scales were used to evaluate the quality of life, depression, and anxiety, respectively in MCCPs and the mothers of healthy children.

They found that significantly lower quality of life and higher BDI scores was observed in MCCPs compared to the mothers of healthy children. A positive correlation between the quality of life and BDI scores was noted in MCCPs. There were no significant differences in BDI scores between MCCPs and control mothers. Moreover, there was no correlation was detected between the quality of life in MCCPs and the severity levels of children with cerebral palsy. There was no significant difference between both groups regarding age of mothers and occupational and education status. The limitation of the study is the small sample size and that the subjects were all from a clinic population. So, the findings may not generalize to the entire population of Cerebral Palsy (CP) patients (Ones, Yilmaz, Cetinkaya, & Caglar, 2005).

Bumin, Günal, & Tükel (2008) investigated the relationship among anxiety and depression with quality of life in mothers with children with disabilities in Ankara. 107 children with disability mothers included. Nottingham Health Profiles Part -1 (NHP) were used to assess quality of life of mothers. The study concluded that mothers with children with disabilities had anxiety and depression. Increased depression and anxiety level affected with badly in mother’s quality of life, they found a positive correlation between pain, sleep disturbance and depression. And in case of increased depression scores, energy level and physical activity level decrease.

Davis & Gavidia-Payne (2009) conducted a qualitative study to utilize grounded theory framework studied the QOL of mothers and fathers of children with CP aged 3–18 years. Whether the impact of caring for a child with CP changes with child age. 24 mothers and 13 fathers of children and adolescents with CP aged 3–7 years 8–12 years and 13–18 years and with varying levels disability severity. It revealed that children with cerebral palsy disability affect parent's QOL in physical well-being, social well-being, freedom and independence, family well-being and financial stability. However, it found that there was no difference in parental QOL depending on parent’s age and no relationship between parental gender, child levels of disability and QOL.

Uskun & Gundogar (2010) conducted a cross-sectional study determined the situations in which the parents experience higher levels of stress; and investigated the relation between the levels of stress, depression, and anxiety. It was conducted with 156 parents whose children attend a Special Education and Rehabilitation Centre. A questionnaire form, consisting of questions regarding the socio-demographic characteristics of children with disabilities and of their parents was used. and the participants were asked to score 10 possible stressful situations (financial problems, relations with other people, having limited free time, not to be able to participate in social activities, not be able to receive sufficient education (for parents), not to be able to have rehab sufficiently (for parents), to be unable to meet the needs of child with disability, concerns regarding social security, attitudes of society towards people, insufficiency of physical structures) on a scale of 0-10 points. Additionally, BDI and Spielberger State Trait Anxiety Inventory (STAI) were applied to the participants. It found that the parents gave the highest points to ‘attitudes of society towards people with disability’, ‘having limited free time’ and ‘financial problems’.

Yilmaz, Erkin, & İzki (2013) investigated health-related quality of life (HRQoL) in mothers of children with cerebral palsy (CP). A sample size was 137 mothers of children with spastic-type CP, and a control 140 mothers with healthy children. The HRQoL of mothers was assessed with 36-Item Short-Form Health Survey (SF-36). It found that HRQoL of CP children’s mothers was lower than in controls. Moreover, there was a negative correlation between age of mothers of CP children and their QOL, on other hand there was no correlation QOL of mothers of CP children and GMCFS, body involvement of CP, educational status, level of income, and number of living children.

Borzoo, Nickbakht, & Jalalian (2014) studied the effect of a child’s disability on the mother’s quality of life, a case control study used a short-form health survey (SF-36) questionnaire , examine various dimensions of QOL such as physical functioning, physical limitations, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, and general health. The sample was of 42 persons divided into two groups in Ahvaz, Iran. They found that a child with a developmental disorder like CP affects various aspects of quality of life. Furthermore, there were significant differences of QOL between mothers of healthy children and mothers of children with cerebral palsy in all domains.

Boehm, Carter, & Taylor (2015) assessed quality of life among families of transition-age youth and young adults with intellectual disability, autism, or both. To assess QOL of 425 parents the Beach Center Family Quality of Life Scale tool was used. They found that parents of young adult (aged between 13 to 21 years old) with disabilities were satisfied with their QOL. Higher parental QOL rating was associated with lower severity of disabilities of the youth, and with parents more religious strengths. The strength of the study that it was estimated QOL of parents with a child between 13-21 years. However, its limitation was because it did not compare parent's QOL of that specific age group to that of parents with older or younger age groups, and it included only autistic spectrum disorders.

Parisi et al. (2016) studied the quality of life in children with CP and in their parents of the 19 males and 17 females with CP. The Impact of Childhood Illness Scale questionnaire was used to assess the quality of life. It consists of 30 questions divided into four sections: impact of illness and its treatment; impact on development and child s adjustment; impact on parents and impact on the family. They found in subscale "Impact on parents" the average score in mothers was the same with fathers; this may be because of that the experience of own son's illness was same. While mothers' present little higher average scores than the group of fathers in "Impact on the child" and "Family impact on the organization". This may be due to the fact that mothers are living most of all the difficulties that entails.

Gogoi, Kumar, & Deuri (2017) investigated psychological impact (i.e. anxiety, depression, and quality of life (QOL) on mothers of children with intellectual disability. The study was conducted at the Outpatient Department of Lokopriya Gopinath Bordoloi Regional Institute of Mental Health, Tezpur, Assam. Groups were assessed with Beck Depression Inventory (BDI-II); STAI, and World Health Organization QOL-BREF (WHOQOL-BREF). The authors have found that the QOL of mothers of children with intellectual disability lower than QOL than mothers with healthy children in all domains (physical, psychological, social relationship, and environment domains). And the mothers of children with disability were having higher level of depression and anxiety than mothers of healthy children. Moreover, if the anxiety and depression level increased QOL of mothers of children with intellectual disability decreased.

The strength of the study is that it contains five identical criteria, such as age, educational qualifications, length of stay with the child, type of family, lack of a previous history of psychiatric illness, and zero physical disability between the two groups. While the limitation is it needs an explanation within the limits of the existence of major differences in three sociodemographic variables, namely the social and economic situation, the profession and the place of residence between the two groups (Gogoi, Kumar, & Deuri, 2017).

Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh (2017) carried out a case control study to compare the quality of life in parents of children with CP and parents of healthy children and its correlations with possible risk factors. 64 parents of children with CP and 64 parents of healthy children participated in the study. The World Health Organization Quality of Life – short version (WHOQOL-BREF) and Duke University Religion Index (DUREL) questionnaires to parents were used. The motor function of the children with CP was evaluated according to the Gross Motor Function Classification System (GMFCS). Parents of children with CP had a lower score in all subscales of the QOL and in the overall score. The study concluded that there was no significant difference between gender (mothers and fathers) within each group. They compared the mothers of both groups and the fathers of both groups separately, there were significant differences for maternal quality of life but not for paternal quality of life.

There was a significant negative correlation between parents' age and psychological domain, social domain, and overall quality of life, also a significant negative correlation between GMFCS level and the social and environmental health domains of quality of life. Parents with higher income had a significantly higher score in social, environmental health, and overall quality of life while only environmental domain was significantly higher in parents with higher education (Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh, 2017).

Misura & Memisevic (2017) used Family Quality of Life Survey to examine the quality of life (QOL) of parents of children with intellectual disability and the effects of gender and educational of these parents on their QOL, sample size was 50 parents of children with intellectual disabilities and 50 parents of a control group. The study has reported that QOL of parents of children with intellectual disability is worse than that of parents of healthy children. They used only two education level status for parents either completed elementary/high school or completed college/university found there is statistically significant effect, the QOL is higher for those higher education level. This may because that higher education means higher SES, this led to less stress on the parents. Limitations of the study were small sample size they used only a total score of QOL scale as the outcome variable.

Glinac, Matović, Delalić, & Mešalić (2017) conducted a case control of 71 mothers of children with cerebral palsy and 70 mothers of healthy children investigated the quality of life in mother of children with cerebral palsy a multidimensional questionnaire PedsQL™ 2.0. Family Impact Mode tool was used, found that mothers of children with cerebral palsy had poorer quality of life than mothers of healthy children in in the area of physical health, social functioning, communication, worries, emotional functioning and daily activity. In case of mother level of education, the quality of life of mothers of children with cerebral palsy is lower in mothers with secondary education than in mothers with primary education in the area of family relations. The study found a statistically significant negative correlation between severity of child disability and social functioning of mothers, mothers' daily activities, parental functioning, family functioning, and overall quality of life of mothers.

Mohammed (2017) investigated the effect of child disability type and severity on the parent's quality of life. The study assessed the effect of children with disabilities aged between 0-29 years (0-10,11-19,20-29 years) on the quality of life of their parents in Canada. The author found that both parents of children aged 11-19 and parents of the children with moderate or severe disability, reported significant lower QOL’s scores. The strength of the study is that it included a wide range of age of the children. However, the limitations were that it was a cross-sectional survey on general community, the self-reported tool was used thus the parental want not to answer some questions, and there was no control group to compare.

Chakraborty, Rao, Shenoy, Davda, & Suprabha (2019) conducted a case-control study assessed the amount of stress and its effect on the quality of life in parents of children with disabilities and effect of child with disability on the physical and mental health of the parents. They used Short Form-12 (SF-12) version 2 instrument and Stress Scale questionnaire. 69 parents of developmentally children with disabilities and 137 parents of healthy children (control group) developmentally children without disability aged 4–17 years. The study found that parents of children with disabilities have worse QOL and there was no difference in parental QOL depending on parent’s age. Furthermore, it found that physical health quality of life was better in parents of child with disability in comparison to QOL of those have healthy child, the difference being statistically significant. Additionally, it found that the difference in gender of the children was not statistically significant. It indicated that the monthly income of the parents among the parents of child with disability and those of healthy children was statistically insignificant. Thus, there was no significant difference between the quality of life of both groups related to income.

2.3.1. Arabic studies about QOL:

Haimour & Abu Hawwash (2012) explored the quality of life in Saudi Arabia for parents of children with disabilities. The study included children disabilities such as mental retardation, learning disability, physical disability, and autism. The Arabic version of World Health Organization Quality of Life (WHOQOL-100) tool was used. The study concluded that there were significant differences in the QOL of parents having a child with disability depending on the type of disability. Parents having a child with a learning disability had the highest QOL scores, followed by parents having a child with physical disability, then parents having a child with mental retardation, and finally, parents having a child with Autism.

The Strength of the study knew the type of disability that has the greatest negative effect on (QOL) for families with a child with disability. In Arabic area, Saudi Arabia, directing government policies towards introducing more legislation to support families caring of children with disabilities. The limitation of the study that it was lacking comparing group (Haimour & Abu Hawwash, 2012).

Alwhaibi, Zaidi, Alzeiby, & Alhusaini (2020) compared the quality of life (QoL) of Saudi mothers of children with Cerebral Palsy (CP) and Down Syndrome and mothers of healthy children. 99 mothers of children without disabilities from regular schools and 200 mothers of children with disabilities were recruited from rehabilitation centers. The Quality of Life Index (QLI) –Generic Version III was used to collect Information on their sociodemographic, social support, and QoL information. The questionnaire Quality of Life Index (QLI) –Generic Version III contains 33 items and yields scores for five categories, total quality of life, health, and functioning, social and economic, psychological, and spiritual, and family.

The study indicated that the mothers of children with disabilities have less satisfaction in the social and economic subscale compared to the mothers of children without disabilities, but no differences were found in the other domains. Furthermore, the mothers of children with disabilities were found to attribute more importance to health and functioning than mothers of children without disabilities. The study noticed that mothers of children with disability have lower socioeconomic status as compared to the control group (Alwhaibi, Zaidi, Alzeiby, & Alhusaini, 2020).

Manee, Ateya, & Rassafiani (2016) compared QOL of Arab mothers in Kuwait of children with and without chronic disabilities and provided recommendations for how occupational therapists can assist in enhancing the mothers' QOL. The case group included 71 mothers of children with chronic disabilities and a control group of 86 mothers of children without disabilities. Mothers' QoL was assessed using the Arabic WHOQOL-BREF questionnaire and the support systems of mothers of children with disabilities using a support questionnaire. The study found that QOL of mothers of children with disabilities was significantly lower than that of mothers of healthy children in all four domains of WHOQOL-BREF. Mothers of children with disabilities reported that there was lack of formal support systems in place in Kuwait and they received most support from their nuclear family. The Limitations of this study it was included mothers only, but a convenience sample of volunteers from one center so the results should not be generalized.

Al Ansari & Jahrami (2018) conducted a cross-sectional study to evaluate the physical health, mental health, and quality of life (QOL) of mothers with Autism Spectrum Disorders and Intellectual Disability children compared to mothers of typically developed in Kingdom of Bahrain. General Health Questionnaire comprising 28 items and the WHOQOL-BREF were used. The study has found that the prevalence of anxiety/insomnia is more pronounced among mothers of children with Autism Spectrum Disorders and Intellectual Disability compared to mothers of control group. Mothers of case groups reported poor physical and mental health than mothers with healthy children.

2.4 Conceptual framework

Conceptual framework is a tool structured to help researchers to properly identify the problem they are looking at, frame their questions, and guide their inquiry. Most academic researchers use a conceptual framework because it helps the researcher to clarify his research question and aims (Smyth, 2004). It can be a visual or written product that is explained either graphically or narrative (Burns & Grove, 1999; Polit & Beck, 2004).

The conceptual framework also summarizes the major dependent and independent variables in the research, and it gives direction to the study (Smyth, 2004). It helps researchers to see the variables of the study clearly, it provides researchers with a general framework for data analysis, and it is essential in the preparation of a research proposal using cross sectional design methods (Smyth, 2004). The major concepts of the current framework focus on quality of life as a dependent variable and other variables as independent variables such as the parents of a child with disability socio-demographic characteristics (parent's gender, age, educational level, monthly income, place of residence, marital status, physical and psychological illness, child's gender, child's age, disability severity and disability type) as seen in figure (2.2). Each concept will be discussed in more details below.

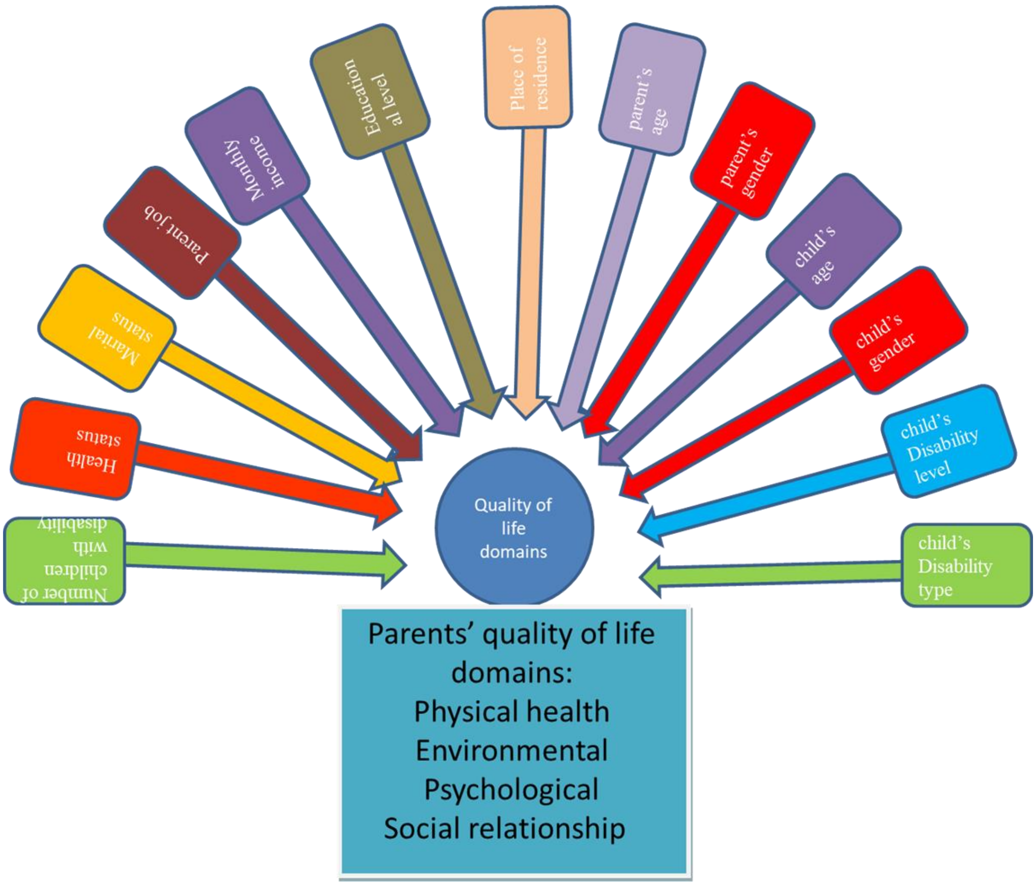

Figure 2.2: Framework of current study including quality of life and independent variables

2.5 Dependent variable: Quality of life of parents of child with disability

WHO defined quality of life as "an individual' perceptions 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 independent, social relationships, and their relationships to salient features of their environment (World Health Organization (WHO) , 1997).

Likewise, the Center of Disease Prevention and Control (CDC), (2012) defined quality of life as "a broad multidimensional concepts that usually includes self-reported measures of physical and mental health".

Quality of life is assessed in the current study by using WHOQOL-BREF which is an abbreviated 26-item version of the WHOQOL-100 containing items that were extracted from the WHOQOL-100 field trial data and was developed by (WHO, 1997) (see appendix A).

The WHOQOL-BREF contains one item from each of the 24 facets of QOL included in the WHOQOL-100, plus two ‘benchmark’ items from the general facet on overall QOL and general health.

The four domain scores denote an individual’s perception of quality of life in each particular domain including physical (7 questions), psychological (6 questions), social relationships (3 questions) and environmental (8 questions)) (WHO, 1997). These domains and their related questions numbers and components are shown in table (2.2).

Table 2.2: The major domains and facets incorporated within each domain of quality of life and the questions that assessed these domains.

Domain	Facets incorporated Within domains	Q. N	Main question
1. Physical health domain (included 7 questions)	Activity of daily living.	Q 17	How satisfied are you with your ability to perform your daily living activities?
	Dependence on medicinal substances & medical aids.	Q 4	How much do you need any medical treatment to function in your daily life?
	Energy and fatigue.	Q 10	Do you have enough energy for everyday life?
	Mobility.	Q 15	How well are you able to get around?
	Pain and discomfort.	Q 3	To what extent do you feel that physical pain prevents you from doing what you need to do?
	Sleep and rest.	Q 16	How satisfied are you with your sleep?
	Work capacity.	Q 18	How satisfied are you with your capacity for work?
2.Psychological health and bodily image and appearance domain (included 6 questions)	Bodily image And appearance.	Q 11	Are you able to accept your bodily appearance?
	Negative feelings.	Q 26	How often do you have negative feelings such as blue mood, despair, anxiety, depression?
	Positive feelings.	Q 5	How much do you enjoy life?
	Self-esteem.	Q 19	How satisfied are you with yourself
	Spirituality / Religion / Personal beliefs.	Q 6	To what extent do you feel your life to be meaningful?
	Thinking, learning, memory, and concentration.	Q 7	How well are you able to concentrate?
3. Social relationships domain (included 3 questions)	Personal relationships.	Q 20	How satisfied are you with your personal relationships?
	Social support. .	Q 22	How satisfied are you with the support you get from your friends?
	Sexual activity	Q 21	How satisfied are you with your sex life?
4.Environment and financial resources domain (included 8questions)	Financial resources.	Q 12	Have you enough money to meet your needs?
	Freedom, physical safety, and security.	Q 8	How safe do you feel in your daily life?
	Health and social care: Accessibility and quality.	Q 24	How satisfied are you with your access to health services?
	Home environment.	Q 23	How satisfied are you with the conditions of your living place?
	Opportunities for acquiring new information and skills.	Q 13	How available to you is the information that you need in your day-to-day life?
	Participation in and Opportunities for recreation /leisure activities.	Q 14	To what extent do you have the opportunity for leisure activities?
	Physical Environment (pollution/ noise /traffic /climate).	Q 9	How healthy is your physical environment?
	Transport	Q 25	How satisfied are you with your transport?

During development of the WHOQOL-100, four types of 5-point Likert interval scale were designed and tested to reflect intensity, capacity, frequency, and evaluation, and one of these was attached to each item. These response scales were also used in the WHOQOLBREF. Items inquire 'how much', 'how completely', how often', 'how good' or 'how satisfied' the respondent felt, and different response scales are distributed across the domains (Skevington et al., 2004).

2.6. Independent variables

In this study, questions number 1 to 9 in the questionnaire were designed to assess independent variables included socio-demographic data for parents (such as age, gender, place of residence, marital status, educational level and job),and question about physical and psychological illness of parents. As well, there are questions about the number of children and a table concerned child in formations (age, sex of children, type of disability and strength of disability) (See appendix B).

2.6.1. Socio-demographic variables:

2.6.1.1. For parents:

These variables were presented in section one of the questionnaires (question 9-1) for parents including the following:

1) Age: Is the time elapsed between the day of birth and the given day, including parts of a year (Organization for Economic Co-operation and Development (OECD), 2007; Palestinian Central Bureau of Statistics PCBS, 2018). Respondents in the current study were classified into five age groups which were less than 18 years, 18 years 29 years, and 30 years to 39 years, 40 years to 49 years 50years to 59 years. Question number (1) in the questionnaire assessed this.
2) Gender: Association, (2011); OECD, (2007) defined sex as refers to a person's biological status and is typically categorized as male and female. Question number (2) assessed this variable in the questionnaire as male or female.
3) Place of residence: the place in which the person spends most of his time during the year (lived there six months and above), irrespective of whether it is the person's same place of existence during the census, or the place in which he works and performs related activates or the place is his original place (Mrkić, Chen, & Brodsky, 2014; OECD

2007). In the current study, a question number (3) assessed this as village, camp, town, and city.

4) Marital status: defined as the status of those 14 years old and over in terms of marriage traditions and laws in the country (PCBS, 2018; Mrkić, Chen, & Brodsky, 2014). Marital status in the current study was divided into4 categories: married, divorced, widowed, and other. Question number (4) assessed this.

5) Educational level: It referred to the highest successfully completed educational attainment level, (Mrkić, Chen, & Brodsky, 2014). In this study it had 5 categories. Question number (5) assessed this as the following: illiterate, elementary, preparatory, high school, and collage

6) Monthly income: It defined as cash or in- kind revenues for individual or household within a period of time; could be a week or a month or a year (PCBS, 2018; Mrkić, Chen, & Brodsky, 2014). In the current study it had 5 categories of the monthly income for a family. Question number (6) assessed this as the following:

1. Not at all.
2. Less than 1000 NIS
3. 1000 - 2000 NIS.
4. 2001 to 3000 NIS.
5. More than 3000 NIS.

7) Mother's or father’s job: refers to the kind of work done by the participant. In the current study it had 6 categories of the job for a parent. In the current study it had 6 categories of the job for a parent. Question number (7) assessed this as the following

1. Not at all
2. Worker
3. Government employee
4. Private sector employee
5. Farmer
6. seller

8) In the current study, question (8) was created to assess physical illness. The question was: Do you suffer from any physical illness? and if yes what it is?

9) In the current study, question (9) was created to assess psychological problems. The question was: Do you suffer from any psychological problems? and if yes what it is?

2.6.1.2 For children

1) How many children with disabilities do you have?
1. one child
2. two children
3. three children
4. four children
5. five children
6. six children

2) How old is the child?
1. 0-3 years
2. 4-6 years
3. 7-9 years
4. 10-12 years
5. 13-15 years
6. 16-18 years

3) What is the child gender?
1. male 2. female

4) What kind of disability does the child have?
1. Physical disability
2. Visual disability
3. Hearing disability
4. Speech disability
5. Intellectual disability
6. Multiple disability

1) What is the severity of the disability suffered by the child?
1. Mild
2. Moderate
3. sever

2.7 Summary

- Disability is a complex term that includes definitions of multiple perspectives.
- World Health Organization (WHO) defined the Disability as an umbrella term that includes impairments, activity limitations, participation restrictions, and environmental factors, disabilities include long-term physical, mental, intellectual, or sensory impairments.
- There is difference between those words “impairment,” “disability,” and “handicap,”.
- The term "quality of life" is a term with a multi-dimensional structure, integrated in its subjective and objective components.
- There are four domains for quality of life: Physical, psychological, social relationships, and environment.

The conceptual framework which was developed based on literature review. It consisted of two major concepts: Dependent variables including quality of life, and independent variables including socio-demographic variables such as (parents‘ age, gender, place of residence, marital status, educational level, monthly income, and physical and psychological illnesses of parents), and that of children (number of children with disabilities, child age, gender, severity of disability and type of severity).

Chapter three
Methodology

3.1 Introduction

This chapter describes the methodology which will be used in this study. It also includes the study design, study population, sampling method, data collection, and ethical consideration. In additional, it illustrates the study tool and the validity and reliability of the instrument utilized for the purpose of data collection in this study.

This study aimed to measure levels of quality of life (QOL) of Parents who have children ages from zero to the age of eighteen years old with disabilities in Hebron area, Palestine. To achieve this purpose, a cross sectional design was utilized. Instruments were used for data collection, and data processing and analysis had been followed.

3.2 Study design

Quantitative research is a formal, objective, rigorous, and systematic scientific process for gathering information or for investigating quantifiable properties, phenomena, and relationships. It involves a collection of numerical data and analysis of data by using statistical procedures (Burns & Grove, 1999; Polit & Beck, 2004). The objective of quantitative research is to develop and employ mathematical models, theories, and hypotheses (Polit & Beck, 2004).

In the current study quantitative research, a cross-sectional design was utilized because it is less expensive and saves time and effort. It is highly useful for descriptive purposes, and it shows both the determining factors and the outcome at the same time (Setia, 2016). However, the cross-sectional design has many limitations: it does not lend to generalization of the result, it may not enable to make causal inferences (Setia, 2016).

3.3 Study population and sample size

The target population of this study was parents of children with disabilities aged from 0 to the age of eighteen years old in Hebron area, Palestine. According to Palestinian Central Bureau of Statistics Population, Housing and Establishment Census the population in Hebron is 711223. 10696 of them are persons with disability. 20% of population with disability is children under the age of 18 years old, which mean that there are 2140 children with disabilities in Hebron area (PCBS, 2018).

The survey system calculator was used to calculate the sample size. The target population is the parent of 2140 child with disability in Hebron which equal 4282 parents. Confidence Level is 95% and Confidence Interval is 5. Thus, the sample size is 362 parents (Systems, 2012).

In this study, purposive sample 362 questioners was sent to four centers ((AL-Raja'a Center for Special Education Specialized in “Rehabilitation &Skills Development” Hebron city (number of children with disability is 46), the Merciful Charitable Society for Rehabilitation- Beit Ula (number of children with disability is 70), Al-Shoroq Society for Persons Of Disabilities –Dier Samet (number of children with disability is 34) and Dahriya Youth Association, Dahriya (number of children with disability is 31)). However, only 221 questioners were answered and returned to the researcher. The respondent rate was 61.05%, according to Salant & Dillman, (1994), a response rate between 50% and 60% can be expected.

3.4 Inclusion and exclusion

All parents of a (child with disability aged from 0 to 18 years old) in these centers were included.

1- AL-Raja'a Center for Special Education Specialized in “Rehabilitation &Skills Development” Hebron city (Palestinian Red Crescent, not dated).
2- The Merciful Charitable Society for Rehabilitation- Beit Ula (not dated).
3- Al-Shoroq Society for Persons of Disabilities –Dier Samet (not dated).
4- Dahriya Youth Association, Dahriya (not dated).

Parents of Child of age more than 18 years old and mental retarded parents were excluded because the limited cognitive abilities of these individuals may affect their ability to fill in the questionnaire.

3.5 Setting of the study

This study was conducted at

1- AL-Raja'a Center for Special Education Specialized in “Rehabilitation &Skills Development” Hebron city.
2- The Merciful Charitable Society for Rehabilitation- Beit Ula.
3- Al-Shoroq Society for Persons of Disabilities –Dier Samet.
4- Dahriya Youth Association, Dahriya.

Their goals are to create community awareness of the rights of the persons with disability. to improve the social, environmental, economic and health conditions for people with disabilities and their families. Also, to create equal opportunities for persons with disability to become contributing members of the society. Focus on persons with disability right and give them rehabilitation support.

AL-Raja'a Center for Special Education Specialized in “Rehabilitation &Skills Development” was established in 1975 in Hebron city. The center aims to facilitate the lives of persons with disabilities, through rehabilitation and development of their abilities and to support their families and integrate them into the local community.

Merciful Charitable Society for Rehabilitation- Bitola was established in 2006 and registered with the Ministry of Interior under No. HL-011-C. Its scope of work (Tarqumia, Beit Ula, Nubba, Kharas and Hata). Its goals are caring for people with disability, securing their own needs, rehabilitate them and integrate them into society, Support and advocacy programs and Psychological support programs.

Al-Shoroq Society For Persons Of Disabilities –Dier Samet is a non-profit association, was established by law in Dier Samet in 5/10/2012 and works to provide social rehabilitation services for persons with disabilities and integrate them into society, holds a license from the Ministry of Interior. It aims to provide rehabilitative social services for persons with disabilities and integrate them into society. Dier Samet - Dora – Hebron:

1- Providing rehabilitation social services for persons with disabilities

2- Integration of persons with disabilities into society

3- Deepening awareness of and defending persons with disabilities

Dahriya Youth Association, Dahriya, is a non-governmental organization, non-profit organization, service for people with special needs. Founded in 2016 , made up of persons with disabilities of both sexes and supporters (volunteers from the pulse of life) residents of the city of Dahriya who seek to change the reality of disability in the region and work to improve their living conditions and community awareness.

3.6 Study Instrument

Data collection tool used in this study was questionnaire sheet including socio demographic sheet, and WHOQOL-BREF QOL sheet as seen in table (3.1). In 2009, Ohaeri and Awadalla developed and tested the Arabic version of the WHOQOL-BREF among an Arab population in Kuwait. The translated Arabic WHOQOL-BREF has considerable reliability and validity indices (Ohaeri & Awadalla, 2009). As reported in the Kuwaiti study, a satisfactory (0.7) Cronbach's alpha was reported for the full questionnaire and the domains (Ohaeri & Awadalla, 2009).

Dalky, Meininger, & Al-Ali, (2017) provided further validation of the Arabic World Health Organization (WHO) QOL-BREF for use among family caregivers of relatives with psychiatric ill-nesses in Jordan. Of the 26 items that constitute the scale, 24 are in the domains of physical health, psychological health, social interactions, and environment, and the first two items asks about an individual's overall perception of quality of life and asks about an individual's satisfaction of his / her health.

The WHOQOL-BREF (which is a short version of the WHOQOL-100 scale) is a 26-item, self-administered, generic questionnaire that is a short version of the (Skevington et al., 2004). The WHOQOL-BREF is a 26-item instrument consisting of four domains: physical health, psychological health, social relationships, and environmental health and two overall QOL and general health items. Physical health (7 items) measures mobility, daily activities, functional capacity and energy, pain, and sleep. Psychological health (6 items) includes items on self-image, negative thoughts, positive attitudes, self-esteem, mentality, learning ability, memory and concentration, religion, and the mental status. Social relationships (3 items cover issues related to personal relationships, social support, and sex life. Environmental health (8 items) contains questions on financial resources, safety, health and social services, living physical environment, opportunities to acquire new skills and knowledge, recreation, general environment (noise, air pollution, etc.), and transportation (Orley, 1996).

Wherever an item is missing, the mean of other items in the domain can be substituted. Wherever more than two items are missing from the domain, the domain score should not be calculated, except for domain 3 in which more than one missing item is required to cancel the calculation. The questionnaires that have more than 20% missing items should be also excluded (Orley, 1996; Organization, 1998).

The response options range from 1 (very dissatisfied/very poor) to 5 (very satisfied/very good). It consists of domains and facets (or sub-domains). The more popular model for interpreting the scores has four domains, namely, physical health (seven items), psychological health (six items), social relations (three items) and environment (eight items) this model was used in the current study.

The domain scores of the WHOQOL-BREF can be computed in three ways. The first is a summation of the raw scores of the constituent items. The second way consists of transforming the raw scores, in this way the raw scores are transformed into scores that range from 4-20, to be in line with the WHOQOL-100 Instrument. The third way was used in the current study to compute the findings, also consist of transforming raw scores into a 0-100% scale (Organization, 1998). The score 60 out of 100 is considered the midpoint where QOL is judged on the WHOQOL-BREF measure to be neither good nor poor (Skevington et al., 2004)

The researcher used this questionnaire because it is short and easy, also could provide an opportunity for future research works to compare quality of life among Palestinian population and people living in other communities.

Table 3.1: Instruments of the current study and the numbers of their questions.

No.	Instruments	Number of questions in each instrument
1	Socio-demographic sheet	1-For parents 9 questions for socio- demographic data. 2 questions for physical and psychological illnesses. 2-For child with disability 4 questions for child socio- demographic data and case
2	Quality of life scale (WHOQOL-BREF)	26 questions

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

1) Socio-demographic sheet was developed for the purpose of this study and it included independent variables for parents such as gender, age, place of residence, marital status, educational level, job, place of residence and physical and psychological illnesses of parent and for child with disability as age, gender, and disability type and severity.

2) Quality of life scale (QOL:) WHOQOL-BREF was adopted in this study, which was developed by the World Health Organization (Orley, (1996). (Organization, 1996). It covers the four domains of QOL which are: physical health, psychological, social relationships, and environment as shown in table (3.2).

Table 3.2: The major domains and facets incorporated within each domain of quality of life scale (Orley, 1996).

Domains	Domain Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work Capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality / Religion / Personal beliefs Thinking, learning, memory, and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety, and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation /leisure activities Physical environment (pollution / noise / traffic /climate) Transport

3.7 Reliability and validity of the instrument

Reliability is the degree to which an instrument yields the same data each time it used with the same subjects under the same conditions, the accuracy of an instrument. It refers to the stability or consistency of information that is obtained when an instrument used more than one (Polit & Beck, 2004). Cronbach's Alpha coefficient is one of the most common means of estimating the internal consistency of items in a scale.

The WHOQOL-BREF translated version that was used in Jordan (Dalky, Meininger, & Al-Ali, 2017) was adopted (due to the lack of translation of the instrument in Palestine and the cultural affinity with Jordan).

It was translated by Ohaeri, & Awadalla, (2009) in Kuwait. The researcher emailed Awadalla to obtain the translated tool and the permission to use it.

The Arabic WHOQOL-BREF internal consistency, item internal consistency, item discriminant validity, and construct validity were evaluated. The Cronbach, s alpha coefficient was ≥0.7. The 24 items constituting the evaluated domains reported an item internal consistency of ≥0.4 and met the item discriminant validity criterion of having a higher correlation with its corresponding domain than with other domains. Factor analysis revealed four strong factors that constituted the same constructs as in the WHO report.

In this study Cronbach Alpha was calculated to measure the reliability by using SPSS and it was found to be 0.932 for the Quality of Life Scale.

Content validity of the questionnaires was examined by a committee of two experts in public health and mental health who hold doctoral degree (PhDs). Some changes were required by them regarding the language and it was done.

Pilot testing

To measure the validity and applicability of the questionnaire and the clearness of the questions, the elaborated questionnaire was tested in the preliminary survey. To fulfill this survey, 41 parents were chosen using purposive sample from different centers.

Data were analyzed and in accordance with the results of preliminary survey, Cronbach Alpha was calculated to measure the reliability by using SPSS and it was found 0.779, 0.805, 0.853, and 0.788 for physical, psychological, social, and environment respectively, which indicate the instruments have a high reliability. So, these pilot questionnaires were not included and considered in the final research results.

3.8 Data collection procedure

Data were collected in this study from parents of children with disabilities in the four centers in the Hebron area during the period from September 2019 to the end of December 2019.

The researcher obtains permission from the officials in the targeted centers to distribute the questionnaire. The caregivers delivered the forms received from the researcher to parents of children with disabilities by hand. They asked the parents to answer the questionnaires (by verbal consent) with an explanation that they are free to reject or agree. The questionnaire was filled out by the father or mother (with the help of a family member if they were illiterate) without the help of one of the caregivers. The researcher's mobile number was placed on all the questionnaires in case parents needed help. But none of the people contacted her.

362 questionnaires were distributed in the four centers, while what was retrieved were 221 questionnaires from the four centers (as the number of questionnaires that were filled out in the presence of the researcher reached 20 from all centers, and the rest were filled out by parents - 201 questionnaires).

3.9 Data analysis

All the data was recorded. The statistical analysis was performed using the (SPSS) statistical package for Social Sciences. Scoring of the WHOQOL-BREF: The WHOQOL-BREF produces four domain scores. Also, there are two items that are examined: question number 1 asks about an individual’s overall perception of quality of life and question number 2 asks about an individual’s satisfaction of his / her health. Domain scores are scaled in a positive direction (that mean higher scores denote higher quality of life). The domain score calculated by calculating mean score of items within each domain.

Mean scores are then multiplied by 4 in order to make domain scores comparable with the scores used in the WHOQOL-100, and subsequently transformed to a 0-100 scale.

A method for the manual calculation of individual scores is below: (Orley, (1996).

Physical domain= ((6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18) x4.

Psychological domain= (Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26)) x4.

Social Relationships domain= (Q20 + Q21 + Q22) x4.

Environment domain= (Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25) x4.

Question three, four, and twenty-six was transformed form negatively to positively by 6 subtracted.

3.10 Statistical analysis

In this study, SPSS version 22 had been used to analyze the data and to examine the hypotheses and questions, the researcher must use some parametric and nonparametric statistical tools as follows:

- Frequencies and percentage to describe the sample’s characteristics and responses.
- Cronbach's Alpha to estimate the reliability of the questionnaire dimensions.
- Normality test to examine if the variable has the normal distribution or not, by Shapiro-Wilk Test of Normality.
- Independent sample t-test to test the differences between mean score of quality of life domains (physical, psychological, social, environmental) with normal distributions and equal variance in two groups (e.g. gender).
- Mann-Whitney U Test to examine the differences between mean score of quality of life domains (physical, psychological, social, environmental) with non-normal distributions or non-equal variance in two groups such as gender variables which contains two groups (e.g. male, and female).
- One-way analysis of variance tests to examine the differences of mean score of quality of life domains (physical, psychological, social, environmental), if variable distributions in all groups were not significantly different from normal and have a homogenous variance
- Kruskal Wallis test is the non-parametric alternative of variance test (one way-ANOVA), which is appropriate when there is a need to compare between data that have more than two variables to determine if there is a significant difference between the tested groups or not such as age categories (18 – 29 years, 30 – 39 years, 40 – 49 years, 50 – 59 years).

3.11 Ethical considerations

Ethical approval was obtained from ethical committee at Al-Quds University (annex number f). Participants were provided with information about the study, including the aim of the study, objectives, and procedures. Moreover, they were informed that they had the rights to refuse to participate in the study. The proposal was submitted to the Public Faculty at Al-Quds University. Before the beginning of the survey, the approval was obtained to carry out this study according to the thesis preparation guide of the Factually of Graduate Studies.

Permission to conduct this study was obtained from:

1- AL-Raja'a Center for Special Education Specialized in “Rehabilitation &Skills Development” Hebron city.

2- The Merciful Charitable Society for Rehabilitation- Beit Ula.

3-Al-Shoroq Society for Persons of Disabilities –Dier Samet.

4-Dahriya Youth Association, Dahriya.

An informed consent was obtained from each participant. Parents and child privacy were protected by allowing for anonymous and voluntary participation.

3.12 Summary

A cross-sectional design was utilized in this study because it is cheap, quick, and ethically safe. Socio-demographic data for parents and children were collected, quality of life scale (QOL:) WHOQOL-BREF was adopted in this study it covers the four domains of QOL which are: physical health, psychological, social relationships, and environment.

The data was analyzed through SPSS statistical package testing. Reliability and validity of the study were highly tested. The next chapter will discuss the results of the current study.

Chapter four
Results

Chapter four: Results

4.1 Introduction

This chapter includes the presentation of data analysis and testing the research hypotheses by answering the research questions and reviewing the main results of the questionnaire reached through analyzing the various paragraphs. SPSS program was used to obtain the results of the research that will be presented and analyzed in this chapter. The researcher presents the study results to answer the questions that appeared and were included in the questionnaire, and which represent the problem of the study after collecting the data required by the study tool.

4.2. Sample Characteristics

Through the study, the researcher looked at certain characteristics of participants, section (4.2.1) presents parent’s characteristic and section (4.2.2) presents the characteristics of the children with disabilities

4.2.1. Parents' sociodemographic characteristics:

Through the questionnaire, the researcher observed certain sociodemographic characteristics of parents that included variables as shown in table (4.1), which contains the frequency and percentage for each variable listed according to the survey categories. As shown in table (4.1), 44.7% of the 179 participants were males, 70.9% of the participants aged from 30 to 49 years. However, 49.4% were from town and 42.7% were from city.

Around half of participants had preparatory and high school education (27.4%, 25.7%) respectively, while 11.2% of participants were illiterate. 23.6% of participants had no income, 21.9% of them their income less than 1000 NIS, and only 7.9% their monthly income more than 3000 NIS. 54.2 % of the sample were not work at all. 44.8 of it were paid employed.

Table 4.1: Results of analyzing of parents' demographic variables

Variable	Options	Frequency	Present %	Missing
Gender	Female	99	55.3	0
	Male	80	44.7	
Age categories	18- 29 years	17	9.5	0
	30 – 39 years	60	33.5	
	40 – 49 years	67	37.4	
	50 – 59 years	35	19.6	
Place of residence	City	76	42.7	1
	town	88	49.4	
	village	13	7.3	
	camp	1	0.6	
education level.	None at all	20	11.2	0
	elementary	26	14.5	
	preparatory	49	27.4	
	High School	46	25.7	
	College	38	21.2	
monthly income	not at all	42	23.6	1
	less than 1000 NIS	39	21.9	
	from 1000-2000 NIS	55	30.9	
	from 2001-3000 NIS	28	15.7	
	more than 3000 NIS	14	7.9	
Job	not at all	97	54.2	0
	Workers	44	24.6	
	Government employee	25	14.0	
	private sector employee	10	5.6	
	Farmer	2	1.1	
	seller	1	0.6	
Marital status	Married	160	90.4	2
	divorced	2	1.1	
	widowed	10	5.6	
	other	5	2.8	
Number of children with disabilities in the family	One	139	78.2	0
	Two	25	14.0	
	three	13	6.7	
	Four	2	1.1	

4.2.2. Parents' illnesses:

In this section, the physical and psychological illnesses of parents were reported 80.34% of the sample reported that they did not suffer from any physical or psychological illnesses, and 14.61% suffered from physical illnesses only, 2.25% of psychological illnesses only and 2.81 suffered from physical and psychological illnesses together.

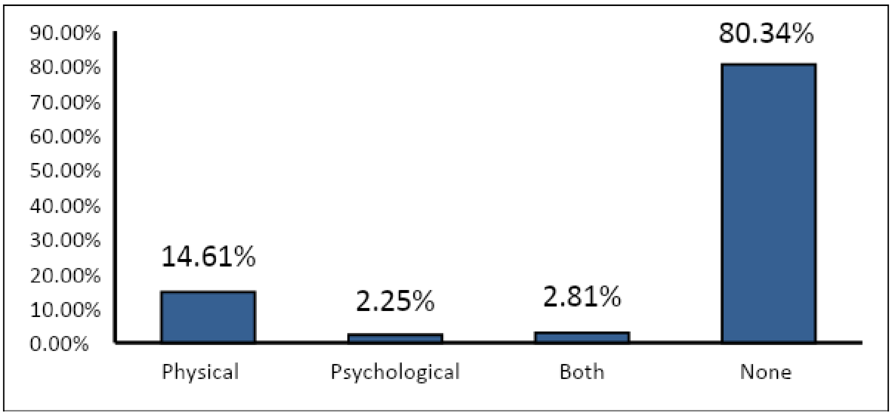

Figure 4.1: Distribution of participants according their physical, psychological illnesses.

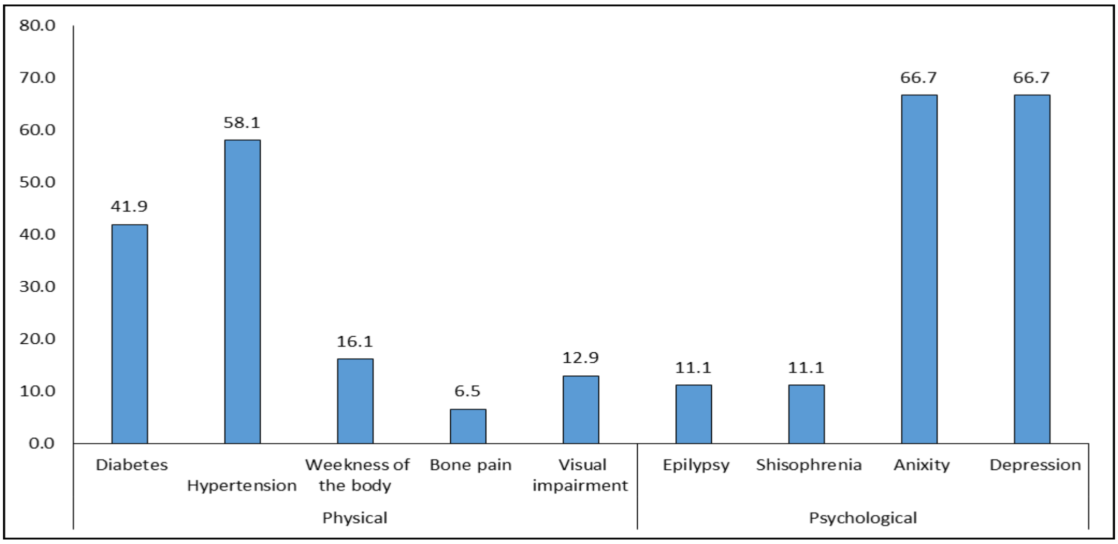

Figure 4.2: The distribution of participants according illnesses type.

4.2.3. Sociodemographic characteristics of children with disabilities:

In this section, the researcher looked at certain social demographic of children with disabilities. Table (4.2) shows that 236 children her/his parents participated to respondent the questionnaire, 57% were males. Furthermore, 64.2% of them their age from 10 to 18 years old.

Table 4.2: Results of analyzing of children's sociodemographic variables.

Variable	Options	Frequency	Present %	Missing
Gender	Male	131	57.0	6
	Female	99	43.0	
Age categories	0-3 years	11	4.7	4
	4-6 years	37	15.9	
	7-9 years	35	15.1	
	10-12 years	52	22.4	
	13-15 years	54	23.3	
	16-18 years	43	18.5	

4.2.4. Type and severity of children's disabilities:

The participants were asked if their children suffered from five types of disabilities, figure (4.3) shows that 29.24% (n=69) of children have intellectual disability, 8.9% (n=21) of them have speech disability, 15.25% (n=36) have a physical disability, however 4.24% (n=10) and 4.66% (n=11) of them have a visual, and hearing disability respectively, while 32.63% (n=77) have a multiple disability, however 5.08% (n=12) they didn’t determined their disabilities type.

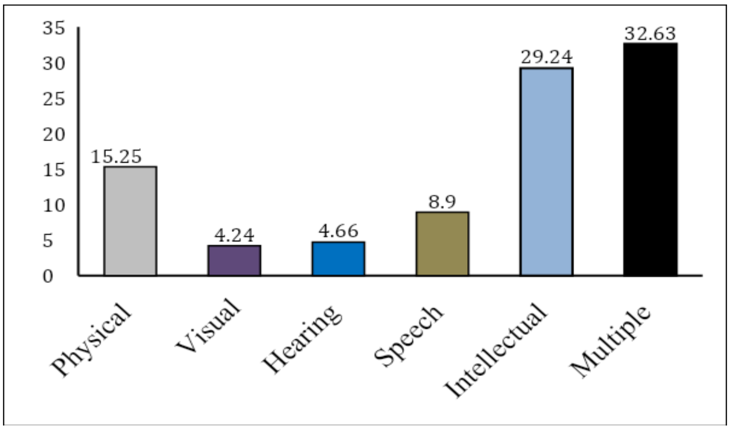

Figure 4.3: The distribution of children by disabilities type.

Figure (4.4) illustrates that 53.81% (n=127) of the children with disabilities have a moderate degree of disabilities, while 31.36% (n=74) of them have a sever degree, and only 10.59% (n=25) have a mild degree. However, 5.08% (n=12) did not determined their disabilities degree.

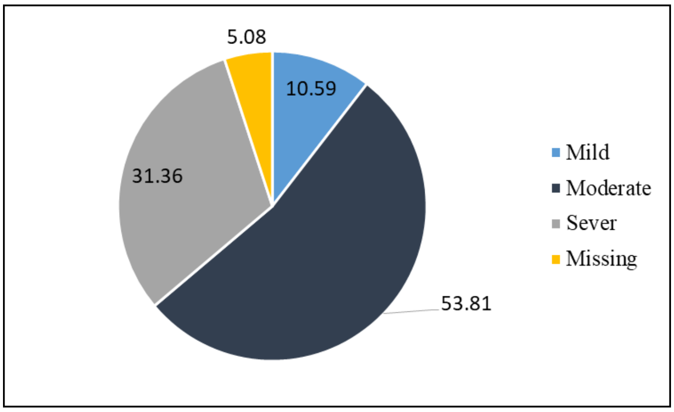

Figure 4.4: The distribution of children by severity level of the disability.

4.3. Assessment of parents' quality of life:

The World Health Organization Quality of Life assessment questionnaire (the WHOQOL-BREF) has two items question number one about an individual's overall perception of quality of life and number two about an individual's overall perception of his or her health. Furthermore, it covers four different domains in the QOL field, physical domain, psychological domain, social domain, and environmental domain. The physical domain has seven questions: q3 (physical pain), q4 (medical treatment), q10 (energy), q15 (get around), q16 (sleep and rest), q17 (activities of daily life), q18 (work capacity). The psychological domain has six questions: q5 (enjoying life), q6 (meaningful life), q7 (concentration), q11(bodily appearance), q19 (self-satisfaction), q26 (negative feelings). While social domain has three questions q20 (personal relationships), q21 (sexual activity), q22 (social support). Finally, the environmental domain has eight questions q8 (daily life safety), q9 (healthy physical environment), q12 (money), q13 (available information), q14 (leisure activities), q23 (home environment), q24 (heath services access), q25 (transports). In this section the researcher analyzed the research questions.

WHQOL-BREF questionnaire was used to asses quality of life of parents have children with disabilities, to answer the first research question that status "How do parents with a child with disability rate their quality of life?" frequency and percentage were found. Table (4.3.a) shows when the participants were asked about how they would rate their quality of life, 30.8% of them responded good and very good, 35.8% responded neither poor nor good, and 33.5% answered poor and very poor.

The participants were asked the second research question that status "How satisfied are you with your health?" table (4.3.b) shows that 44.1% reported being satisfied and very satisfied, 32.4% stated that neither satisfied nor dissatisfied, and 23.4% said dissatisfied and extremely dissatisfied. In addition, participants were answered 24 questions of the WHOQOL-BREF questioner. Tables (4.4.a-d) show their result.

Table (4.3.a): level of QOL of parents of children with disabilities

No.	Questions	Scale									
		Very poor		**Poor**		**Neither poor nor good**		**Good**		**Very good**	
1	How would you rate your quality of life?	N	%	N	%	N	%	N	%	N	%
		7	3.9	53	29.6	64	35.8	49	27.4	6	3.4

Table (4.3.b): Parents of children with disabilities satisfaction with their health?"

No.	**Questions**	**Scale**									
2	**How satisfied are you with your health?**	**Very dissatisfied**		**Dissatisfied**		**Neither satisfied nor dissatisfied**		**Satisfied**		**Very satisfied**	
		N	%	N	%	N	%	N	%	N	%
		4	2.2	38	21.2	58	32.4	68	38.0	11	6.1

Table (4.4.a): Frequency of QOL among parents of children with disabilities in the last two weeks.

No.	**Questions**	**Scale**									
No.	**Questions**	**Not at all**		**A little**		**A moderate amount**		**Very much**		**An extreme amount**	
3	**To what extent do you feel that physical pain prevents you from doing what you need to do?**	N	%	N	%	N	%	N	%	N	%
		7	3.9	67	37.4	49	27.4	42	23.5	14	7.8
4	**How much do you need any medical treatment to function in your daily life?**	9	5	25	14	46	25.7	75	41.9	24	13.4
5	**How much do you enjoy life?**	8	4.5	47	26.3	100	55.9	19	10.6	5	2.8
6	**To what extent do you feel your life to be meaningful?**	4	2.2	20	11.2	35	19.6	68	38	52	29.1
7	**How well are you able to concentrate?**	5	2.8	32	17.9	96	53.6	38	21.2	8	4.5
8	**How safe do you feel in your daily life?**	5	2.8	38	21.2	99	55.3	27	15.1	10	5.6
9	**How healthy is your physical environment?**	8	4.5	59	33	79	44.1	21	11.7	12	6.7

Table (4.4.b): Frequency of QOL parents among parents of children with disabilities in the last two weeks.

No.	Questions	Not at all		A little		Moderately		Mostly		Completely	
		N	%	N	%	N	%	N	%	N	%
10	Do you have enough energy for everyday life?	8	4.5	37	20.7	96	53.6	29	16.2	9	5
11	Are you able to accept your bodily appearance?	7	3.9	20	11.2	62	34.6	67	37.4	23	12.8
12	Have you enough money to meet your needs?	18	10.1	79	44.1	68	38.0	12	6.7	2	1.1
13	How available to you is the information that you need in your day-to-day life?	12	6.7	38	21.2	103	57.5	20	11.2	6	3.4
14	To what extent do you have the opportunity for leisure activities?	36	19.0	90	50.3	35	19.6	11	6.1	9	5.0

No.	Questions	Very poor		Poor		Neither poor nor good		Good		Very good	
		N	%	N	%	N	%	N	%	N	%
15	How well are you able to get around?	45	25.1	46	25.7	52	29.1	24	13.4	12	6.7

Table (4.4.c): Frequency of QOL parents among parents have experienced certain things of children with disabilities in the last two weeks

No.	Questions	Very dissatisfied		Dissatisfied		Neither satisfied nor dissatisfied		Satisfied		Very satisfied	
		N	%	N	%	N	%	N	%	N	%
16	How satisfied you with your sleep?	11	6.1	44	24.6	78	43.6	39	21.8	7	3.9
17	How satisfied with your ability to perform your daily living activities?	3	1.7	29	16.2	80	44.7	53	29.6	14	7.8
18	How satisfied are you with your capacity for work?	8	4.5	25	14	85	47.5	51	28.5	10	5.6
19	How satisfied are you with yourself?	4	2.2	19	10.6	75	41.9	61	34.1	20	11.2
20	How satisfied are you with your personal relationships?	2	1.1	37	20.7	69	38.5	50	27.9	21	11.7
21	How satisfied with your sex life?	7	3.9	53	29.6	53	29.6	56	31.3	10	5.6
22	How satisfied are you with the support you get from your friends?	9	5	51	28.5	82	45.8	30	16.8	7	3.9
23	How satisfied are you with the conditions of your living place?	16	8.9	57	31.8	70	39.1	22	12.3	14	7.8
24	How satisfied are you with your access to health services?	12	6.7	26	14.5	93	52.0	40	22.3	8	4.5
25	How satisfied are you with your transport?	19	10.6	28	15.6	78	43.6	40	22.3	14	7.8

Table (4.4.d): Frequency of QOL parents among parents have experienced certain things of children with disabilities in the last two weeks.

No.	Questions	Never		Seldom		Quite often		Very often		Always	
		N	%	N	%	N	%	N	%	N	%
26	How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	17	9.5	53	29.6	75	41.9	24	13.4	10	5.6

4.3.1. Overall parents' assessment of rate of QOL and satisfaction of health:

The mean score of the overall perception of quality of life (49.16), as shown in table (4.5). Regarding to overall perception of quality of life and their heath, the mean score of satisfied with their health (mean = 56.15).

Table 4.5: Descriptive statistic for overall perception of quality of life and their heath.

	N	Minimum	Maximum	Mean	S.D
1-How would you rate your quality of life?	179	0	100	49.16	23.24
2-How satisfied are you with your health?	179	0	100	56.15	23.3

4.3.2. Parents' assessment of Physical Domain:

This section displays the second research questions related to physical domain that status **"What is the quality of life of parents with a child with disability from physical aspect?".**

The mean score of the overall satisfaction of the participants with quality of life in physical domains is (50.76), as shown in table (4.6). The highest mean score was for the question number four which assessed participants needing medical treatment to function in their daily life, followed by the score of question seventeen (mean = 56.42). While the lowest mean was for the question number fifteen which assessed the participants their ability to get around (mean=37.71).

Table 4.6: Descriptive statistic for each question related to the physical domain

No.	Items	N	Minimum	Maximum	Mean	S.D
4	How much do you need any medical treatment to function in your daily life?	179	0	100	61.17	26.25
17	How satisfied are you with your ability to perform your daily living activities?	179	0	100	56.42	22.03
18	How satisfied are you with your capacity for work?	179	0	100	54.19	22.41
10	Do you have enough energy for everyday life?	179	0	100	49.16	21.68
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	179	0	100	48.46	25.99
16	How satisfied are you with your sleep?	179	0	100	48.18	23.26
15	How well are you able to get around?	179	0	100	37.71	29.91
Physical domain		**179**	**0**	**100**	**50.76**	**16.14**

4.3.3. Parents' assessment of psychological Domain:

This section displays the third research questions related to psychological domain that status **"What is the quality of life of parents with a child with disability from psychological aspect?".**

Table (4.7) shows the mean score of the overall satisfaction of the participants with quality of life in psychological aspect is (55.40). The highest mean score of the psychological questions was for the question number six which assessed the participants feeling about their life to be meaningful (mean= 70.11), followed by the questions number eleven (mean=61.03), while the lowest mean score was for the question number twenty-six (mean=43.99) which assessed whether the participants had negative feeling such as blue mood, despair, anxiety, depression.

Table 4.7: Descriptive statistic for questions related to the psychological domain.

No.	Items	N	Maximum	Minimum	Mean	S.D.
6	To what extent do you feel your life to be meaningful?	179	100	0	70.11	26.24
11	Are you able to accept your bodily appearance?	179	100	0	61.03	24.59
19	How satisfied are you with yourself?	179	100	0	60.34	22.60
7	How well are you able to concentrate?	179	100	0	51.68	20.63
5	How much do you enjoy life?	179	100	0	45.25	19.79
26	How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	179	100	0	43.99	24.77
Psychological Domain		**179**	**95.83**	**12.5**	**55.40**	**15.78**

4.3.4. Parents' assessment of Social Domain:

This section displays the fourth research questions related to social domain that status **“What is the quality of life of parents with a child with disability from social aspect?”.**

The mean score of the overall satisfaction of the participants with quality of life in social aspect is (51.63). The highest mean score was for the question number twenty (mean =57.12), followed by the questions number nineteen (mean=51.26). The lowest mean was for the question number twenty-two (mean=46.51) as shown in table (4.8).

Table 4. 8: Descriptive statistic for each question related to the social domain.

No.	Items	N	Minimum	Maximum	Mean	S.D.
20	How satisfied are you with your personal relationships?	179	0	100	57.12	24.03
21	How satisfied are you with your sex life?	179	0	100	51.26	24.90
22	How satisfied are you with the support you get from your friends?	179	0	100	46.51	22.29
Social domain		**179**	**0**	**100**	**51.63**	**19.29**

4.3.5. Parents' assessment of Environmental Domain:

This section displays the fifth research questions related to environmental domain that status **“What is the quality of life of parents with a child with disability from environmental aspect?”.** Table (4.9) shows that the mean score of the overall satisfaction of the participants with quality of life in environmental aspect is (44.41), as the minimum mean score 0, while the maximum mean score is 100. The highest mean score was for the question number twenty-four (mean =50.84), followed by the questions number twenty-five (mean=50.28). Then the question number eight (mean=49.86). The lowest mean was for the question number fourteen (mean=31.98).

Table 4.9: Descriptive statistic for questions related to the environmental domain.

No.	Items	N	Minimum	Maximum	Mean	S.D.
24	How satisfied are you with your access to health services?	179	0	100	50.84	22.63
25	How satisfied are you with your transport?	179	0	100	50.28	26.50
8	How safe do you feel in your daily life?	179	0	100	49.86	20.95
9	How healthy is your physical environment?	179	0	100	45.81	23.33
13	How available to you is the information that you need in your day-to-day life?	179	0	100	45.81	20.95
23	How satisfied are you with the conditions of your living place?	179	0	100	44.55	25.86
12	Have you enough money to meet your needs?	179	0	100	36.17	20.20
14	To what extent do you have the opportunity for leisure activities?	179	0	100	31.98	25.14
Environmental domain		**179**	**3.13**	**100**	**44.41**	**16.18**

According to the result of four research questioner, figure (4.5) showed that the mean of overall QOL score of the participations is (49.91±14.35), the lowest QOL scores is the environmental domain (mean=44.41±16.18), followed by the physical domain (mean=50.76±16.14), then the social domain (mean=51.63±19.29), and finally the psychological domain (mean =55.40±15.78) which had the highest mean.

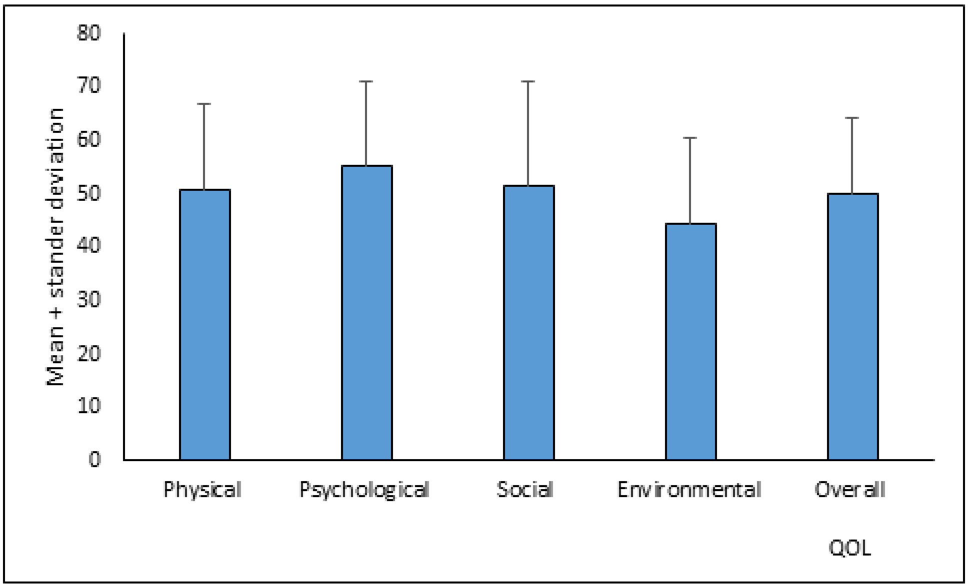

Figure 4.5: Mean and stander deviation for the QOL domains

4.4. Differences in QOL domains due to parent’s characteristics

This section displays the differences in four domain of quality of life due to two types of parent’s characteristics, section (4.5.1) displays these differences due to socio-demographic variables, and section (4.5.2) displays the differences in four domains of QOL due to physical and psychological illnesses of parents.

4.4.1. Differences in QOL domains due to parents’ socio-demographic characteristics:

This section displays the result of eight-main hypothesis which stating: **“There is no significant difference of the mean score of quality of life due to the demographic variables (Gender, Age, Place of residence, Education level, Monthly income, Job, Marital status, Number of children with disability)”**

In order to test the hypothesis, statistical analysis for quality of life domains involved the calculation of mean, also the normality of mean score of quality of life domains distribution was verified using the Shapiro–Wilk test at a significance level of (α ≤0.05). The significance of differences between mean score of quality of life domains (physical, psychological, social, and environmental) with normal distributions in two groups (gender) was verified using Independent sample t-test. If the distribution of mean score of quality of life domains significantly differed from normal or by variance, the nonparametric Mann–Whitney U-test was used.

Hypotheses on mean scores of equality of life domains in more than two groups (e.g., age) were verified using one-way analysis of variance (if variable distributions in all groups were not significantly different from normal and have a homogenous variance) or the nonparametric Kruskal–Wallis test (for skewed distributions or non-homogenous variance) .

For the difference of mean score of quality of life due to gender of participants. Table (4.10) shows that there is no statistically differences in the mean score of each quality of life domains due to gender, which all p-value of the four domains is more than the significance level (α=0.05).

ANOVA test showed there is no statistically differences in mean score of physical domain due to participants age (p=0.44), also, Kruskal–Wallis test showed there is no statistically differences in mean score of psychological, social, and environmental domains due to participants age.

Kruskal–Wallis test revealed a statistically differences in mean score of physical (p=0.00), psychological (p=0.05), social (p=0.00), and environmental (p=0.00) domains due to participant’s place of residence. Table (4.10) illustrates the participants who lived in the city had a higher mean score for the physical domain (mean rank =112.28), the psychological domain (mean rank=98.2), and the social domain (mean rank =113.57) than the participants who lived in the town, camp, or village, also the mean score of the environmental domain of participants who lived in camp (mean rank =108.50) is the higher than the mean score of participants who lived in city (mean rank=106.94), town (mean rank =79.53), or village (mean rank=53.58).

To assess the differences in mean sore of QOL dimensions due to education level, ANOVA test was used, and the result revealed a statistically differences in mean score of physical (p=0.00), and environmental (p=0.01) domains due to participant's education level. On the other hands, participants who had a high school degree had higher mean score for the physical domain (mean=56.06) than the mean score of other education level. Also, the mean score of the environmental domain of participants who had a college degree (mean =49.92) is largest than the mean score of other education level. Kruskal–Wallis test showed a statistically differences in mean score of psychological (p=0.00), and social (p=0.01) domains due to participant's education level. However, participants who had a high school degree had higher mean score for the social domain (mean rank =103.20) than the mean score of other education level. Also, the mean score of the psychological domain of participants who had a college degree (mean rank =115.112) had higher than the mean score of other education level.

To assess the differences in mean sore of QOL dimensions due to monthly income, Kruskal–Wallis test was used. The result found that there is a statistically differences in mean score of physical (p=0.02), psychological (p=0.00), social (p=0.01), and environmental (p=0.02) domains due to participant's monthly income. Table (4.10) illustrates that the participants who had a monthly income more 3000 NIS had a higher mean score for the physical domain (mean rank =111.7), the psychological domain (mean rank=138.07), and the environmental domain (mean rank =115.50) than the participants who had a monthly income less than or equal 3000 NIS, also the mean score of the social domain of participants who had a monthly income between 1000NIS and 2000NIS (mean rank =107.95) is the higher than the mean score of participants who had a monthly income less than 1000 NIS or more than 2000 NIS.

Table (4.10) clarifies that by using ANOVA test there is no statistically differences in mean score of physical (p=0.12) due to participant's job, while there is a statistically differences in mean score of psychological (p=0.00) due to participant's job. Moreover, the participants who's working in seller had a higher mean score for the psychological domain (mean=91.67) than the mean score of participants who's working in other jobs. However, Kruskal–Wallis test showed a statistically differences in mean score of environmental domain (p=0.02) due to participant's jobs, participants who's working in seller had a higher mean score of environmental domain, also the result showed no statistically differences in mean score of social domain (p=0.09) due to participant’s jobs. About difference in mean score due to marital status, ANOVA test revealed a statistically differences in mean score of the psychological domain (p=0.00) due to marital status of participants. However, Kruskal–Wallis test showed no statistically differences in mean score of physical (p=0.22), social (p=0.26), and environmental (p=0.65) domains due to the marital status of participants.

Finally, ANOVA test showed there is no statistically differences in mean score of physical domain (p= 0.31), and psychological domain (p=0.11) due to number of children with disability that the participants have, also, Kruskal–Wallis test showed there is no statistically differences in mean score of social domain, and environmental domain due to number of children with disability that the participants have.

Table 4.10: Differences in mean score of QOL domains parent's socio-demographic.

Variables		Physical		Psychological		Social		Environmental	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Gender	Male	52.23	0.27	57.66	0.09	96.15	0.15	94.59	0.29
	Female	49.57		53.58		85.03		86.29	
		$Mean^b$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Age	18 -29 years	48.95	0.44	67.53	0.43	76.47	0.33	65.82	0.55
	30 -39 years	51.13		77.81		77.51		70.13	
	40 -49 years	52.67		69.01		67.01		76.31	
	50 -59 years	47.35		67.53		76.47		65.82	
		$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
place of residence	City	112.28	0.00	98.24	0.05	113.57	0.00	106.94	0.00
	Town	74.31		86.91		70.52		79.53	
	Camp	88.00		63.50		112.50		108.50	
	Village	59.31		57.92		75.50		53.58	
		$Mean^b$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^b$	Sig
Education Level	None at all	42.50	0.00	52.88	0.00	66.10	0.01	40.94	0.01
	elementary	40.93		62.40		68.04		36.18	
	preparatory	51.82		96.24		88.30		43.30	
	High School	56.06		94.34		103.72		47.21	
	College	54.04		115.12		103.20		49.92	
		$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Monthly income (NIS)	not at all	84.57	0.02	76.64	0.00	75.69	0.01	80.44	0.02
	less than 1000	69.15		68.03		73.73		73.76	
	1000-2000	98.21		93.71		107.95		94.01	
	2001-3000	97.34		106.14		91.04		103.16	
	more than 3000	111.07		138.07		99.32		115.50	
		$Mean^b$	Sig	$Mean^b$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Job	not at all	48.90	0.12	52.84	0.00	82.09	0.09	85.94	0.02
	Workers	50.65		53.88		94.20		78.75	
	Government employee	54.00		62.33		99.24		107.00	
	private employee	55.71		62.08		105.05		116.85	
	Farmer	60.71		75.00		146.50		143.25	
	Seller	85.71		91.67		178.00		178.50	
		$Mean^a$	Sig	$Mean^b$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
marital status	Married	90.01	0.22	55.96	0.00	89.36	0.26	102.25	0.65
	divorced	106.75		39.58		85.00		69.65	
	widowed	59.45		41.67		67.25		85.90	
	other	108.70		67.50		122.50		102.25	
		$Mean^b$	Sig	$Mean^b$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Number of children with disability	one	51.89	0.31	56.61	0.11	92.84	0.23	94.65	0.06
	two	47.43		48.17		82.98		69.64	
	three	46.43		56.25		82.25		87.46	
	four	39.29		56.25		25.75		34.50	

a Result obtained by Kruskal–Wallis test at p-value ≤0.05
b Result obtained by ANOVA test at p-value ≤0.05
c Result obtained by Mann–Whitney U-test at p-value ≤0.05

d Result obtained by Independent sample t-test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

4.4.2. Differences in QOL domains due to type of illness of parents:

This section displays the result of eleven-main hypothesis which stating: "**There is no significant difference of the mean score of quality of life due to the parents physical and psychological illnesses (Physical illness, Diabetes, Hypertension, Weakness of the body, Bone pain, Visual impairment, psychological illness, Epilepsy, Schizophrenia, Anxiety, Depression).**"

In order to test the hypothesis, statistical analysis for quality of life domains involved the calculation of mean, also the normality of mean score of quality of life domains distribution was verified using the Shapiro–Wilk test at a significance level of (P=0.05) the significance of differences between mean score of quality of life domains (physical, psychological, social, environmental) with normal distributions was verified using Independent sample t-test. If the distribution of mean score of quality of life domains significantly differed from normal, the nonparametric Mann–Whitney U-test was used.

Table (4.11) clarifies that by using independent sample t test there is a statistically differences in mean score of physical (p=0.00), and psychological (p=0.02) between participants who's suffered from physical problems and others. Kruskal–Wallis test showed a statistically differences in mean score of environmental domain (p=0.02) between participants who's suffered from physical problems and others. Furthermore, the result showed no statistically differences in mean score of social domain (p=0.19).

The result of independent sample t test found that there is no statistically difference of mean score of physical (p=0.12), between participants who's suffered from psychological illnesses and others. On the other side, Kruskal–Wallis test showed a statistically differences in mean score of environmental domain (p=0.02) between participants who's suffered from psychological illnesses and others, also the result showed no statistically differences in mean score of social domain (p=0.13) and psychological (p=0.83).

For physical illnesses, the participants were asked if they suffered of any physical problems, and what are they, independent sample t test clarifies there is a statistically differences in mean score of physical (p=0.04) and psychological (p=0.04) between participants who's suffered from diabetes problems and others. Kruskal–Wallis test showed there is no statistically differences in mean score of social domain (p=0.39) and environmental domain (p=0.18) between participants who’s suffered from diabetes problems and others.

To assess the differences in mean sore of QOL dimensions due to hypertension problems, independent sample t test showed that there is a statistically differences in mean score of physical (p=0.01) between participants who’s suffered from hypertension problems and others. Kruskal–Wallis test showed there is no statistically differences in mean score of psychological domain (p=0.07), environmental domain (p=0.88) and social (p=0.053) between participants who’s suffered from hypertension and others.

For weakness of the body suffering, there is no statistically differences in mean score of physical (p=0.06), psychological domain (p=0.86), environmental domain (p=0.87) and social (p=0.59) between participants who’s suffered from weakness of the body and others.

Moreover, Kruskal–Wallis test showed there is a statistically differences in mean score of physical (p=0.01) and environmental domain (p=0.04) between participants who’s suffered from bone pain problems and other. Furthermore, the result showed there is no statistically differences in mean score of psychological domain (p=0.10), and social (p=0.40) between participants who’s suffered from bone pain problems and others.

Independent sample t test showed there is a statistically differences in mean score of physical (p=0.02) between participants who’s suffered from visual impairment problems and others. Also, there is no statistically differences in mean score of psychological (p=0.21), social (p=0.07) and environmental domains (p=0.06) between participants who’s suffered from visual impairment problems and others.

For psychological illnesses, the participants were asked if they suffered of any psychological problems, and what are they. Table (4.11) illustrates there is no statistically differences in mean score of physical (p=0.63), psychological domain (p=0.94), environmental domain (p=0.48) and social (p=0.94) between participants who’s suffered from epilepsy and others. In addition, there is no statistically differences in mean score of physical (p=0.40), psychological domain (p=0.85), environmental domain (p=0.96) and social (p=0.89) between participants who’s suffered from schizophrenia and others. The result found that there are no statistically differences in mean score of quality life between participants who’s suffered from anxiety and others. While independent sample t test showed there is a statistically differences in mean score of physical (p=0.00) between participants who’s suffered from depression and others.

Table 4.11: Differences in mean score of QOL domains illness type of parents.

Variables		Physical		Psychological		Social		Environmental	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Physical illness	No	53.26	**0.00**	56.81	**0.02**	92.29	0.19	94.15	**0.02**
	Yes	38.82		48.66		79.08		70.18	
		$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Diabetes	No	51.44	**0.04**	92.19	**0.04**	90.93	0.39	91.46	0.18
	Yes	42.03		62.04		78.15		71.31	
		$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Hypertension	No	52.24	**0.01**	92.36	0.07	90.18	0.88	92.50	0.053
	Yes	37.50		68.89		88.39		67.61	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Weakness of the body	No	51.15	0.06	55.44	0.86	90.11	0.87	89.65	0.59
	Yes	37.14		54.17		86.20		102.30	
		$Mean^c$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Bone pain	No	91.00	**0.00**	55.81	0.10	90.37	0.40	90.81	**0.04**
	Yes	1.50		18.75		57.00		18.00	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Visual impairment	No	51.18	0.02	55.64	0.21	91.07	0.07	91.11	0.06
	Yes	32.14		44.79		43.13		41.25	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
psychological illness	No	51.16	0.12	55.84	0.13	89.69	0.83	91.09	0.07
	Yes	41.67		47.22		86.00		59.56	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Epilepsy	No	50.73	0.63	55.41	0.94	89.24	0.48	89.88	0.94
	Yes	42.86		54.17		135.50		21.50	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Schizophrenia	No	50.61	0.40	55.39	0.85	89.53	0.96	89.56	0.89
	Yes	64.29		58.33		85.00		79.50	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Anxiety	No	50.96	0.23	55.74	0.12	89.05	0.53	90.86	0.06
	Yes	42.86		45.83		102.33		50.42	
		$Mean^d$	Sig	$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Depression	No	51.32	**0.00**	55.90	0.12	89.55	0.44	90.29	0.07
	Yes	32.74		44.44		73.33		52.25	

c Result obtained by Mann–Whitney U-test at p-value ≤0.05
d Result obtained by Independent sample t-test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

4.5 Differences in QOL domains due to children with disability characteristics

This section displays the result of nine-main hypothesis which stating: **"There is no significant difference of the mean score of quality of life due to the children with disability characteristics (Gender, Age, Physical disability, visual disability, hearing disability, speech disability, and Intellectual disability, multiple disabilities, and severity of the disability)."**

In order to test the hypothesis, statistical analysis for quality of life domains involved the calculation of mean, also the normality of mean score of quality of life domains distribution was verified using the Shapiro–Wilk test at a significance level of (P=0.05) .

For the difference of mean score of quality of life due to children gender of participants. Table (4.12) shows that there are no statistically differences of the mean score of each quality of life domains due to gender, which all p-value of the four domains is more than the significance level (α=.05). Kruskal–Wallis test showed there is a statistically differences of mean score of physical domain due to children with disability age (p=0.05), with higher mean score of children whose age between 16 years and 18 years, also, showed there is no statistically differences of mean score of psychological, social, and environmental domains due to children with disability age.

To assess the differences in QOL domains mean score between the parents who have children with multiple disabilities and who have children with one disability, Mann–Whitney U-test used. The result found that there is no significant difference in QOL domain means score in each domain due to number of disabilities.

The result revealed that there is a statistically difference of mean score of environmental domain (p=0.02) between children who have a physical disability and others. While the result showed there is no statistically difference of mean score of psychological domain (p=0.09), physical (p=0.07), and social (0.072) between children who have a physical disability and others. In additions, there is no statistically difference of mean score of physical domain (p=0.59), and psychological domain (p=0.50) between children who have a visual disability and others. Whereas there is a statistically difference in social domain (p=0.04), and environmental domain (p=0.045) between children who have a visual disability and others. On the other hand, there is no statistically difference of mean score of each domain of quality of life between children who have a hearing disability and others. Furthermore, there is no statistically difference of mean score of each domain of quality of life between children who have intellectual disability and others.

Also, there is a statistically differences of mean score of physical (p=0.00), environmental domain (p=0.00) and social (p=0.00) between children who have a speech disability and others, in fever of children who have a speech disability in physical, and environmental domains. Furthermore, the result revealed that there is no statistically difference of mean score of physical (p=0.40), psychological domain (p=0.92), environmental domain (p=0.07) and social (p=0.15) between children who have a multiple disabilities and other who have one disability.

Finally, table (4.12) clarifies there is not statistically differences of mean score of each domain of quality of life due to severity of disability.

Table 4.12: Differences of mean score QOL domains among children and socio-demographic.

Variables		Physical		Psychological		Social		Environmental	
		$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Gender	Male	50.68	0.42	114.81	0.86	112.19	0.38	119.62	0.28
	Female	48.92		116.42		119.87		110.05	
		$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Age	0-3 years	92.91	**0.05**	91.05	0.26	93.36	0.13	124.05	0.31
	4-6 years	92.96		108.78		105.30		94.96	
	7-9 years	124.00		132.53		129.59		118.09	
	10-12 years	124.84		127.03		119.89		129.21	
	13-15 years	109.69		106.73		103.92		114.15	
	16-18 years	135.16		116.14		133.10		119.40	
		$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Number of disabilities	One	114.39	0.55	115.98	0.27	117.72	0.09	111.10	0.65
	Multiple	108.90		105.86		102.54		115.18	
		$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Physical disability	Yes	115.41	0.07	114.40	0.20	112.66	0.72	116.61	**0.02**
	No	94.31		99.54		108.56		88.07	
		$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Visual disability	Yes	49.9	0.59	111.87	0.50	110.60	0.04	110.66	0.045
	No	53.21		125.95		153.10		151.85	
		$Mean^d$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Hearing disability	Yes	50.03	0.88	111.11	0.16	111.65	0.38	111.34	0.24
	No	50.65		139.41		128.95		134.95	
		$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Speech disability	Yes	107.17	**0.00**	110.15	0.09	107.11	**0.00**	109.22	**0.02**
	No	164.00		135.26		164.60		144.21	
		$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Intellectual disability	Yes	114.92	0.40	112.19	0.92	117.63	0.07	116.66	0.15
	No	107.07		113.19		100.97		103.16	
		$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig	$Mean^c$	Sig
Multiple disabilities	Yes	108.90	0.55	105.86	0.27	102.54	0.09	115.18	0.65
	No	114.39		115.98		117.72		111.10	
		$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig	$Mean^a$	Sig
Severity of the disability	Mild	126.70	0.13	124.48	0.53	131.46	0.34	120.08	0.21
	Moderate	105.91		114.56		110.68		106.75	
	Sever	122.07		107.98		112.27		122.86	

a Result obtained by Kruskal–Wallis test at p-value ≤0.05
b Result obtained by ANOVA test at p-value ≤0.05
c Result obtained by Mann–Whitney U-test at p-value ≤0.05
d Result obtained by Independent sample t-test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

To compare the mean differences of QOL domains mean score due to disabilities type, Kruskal–Wallis test was used. Table (4.13) illustrates that there are significant differences in mean score of physical, social, and environmental domains due to disabilities type (p=0.006, p=0.001, p=0.003, respectively). The result found that there is no significant difference in psychological domain.

Regarding to physical domain, the highest mean score for parents who have children with speech disabilities, followed by visual. Regarding to social and environmental domains the highest mean sore for parents who have children with speech disabilities, followed by parents who have children with visual disabilities.

Table 4.13: Kruskal–Wallis test result of mean differences of QOL domains mean score due to disabilities type.

	Physical	Psychological	Social	Environmental
Disability type	Mean rank	Mean rank	Mean rank	Mean rank
Physical	62.24	62.90	68.10	59.56
Visual	83.80	80.70	96.55	100.75
Hearing	72.95	89.23	81.18	89.23
Speech	104.05	86.81	104.90	95.31
Intellectual	69.74	72.49	63.26	68.75
χ^2 (Sig.)	14.517 (0.006)	6.147 (0.188)	19.608 (0.001)	15.902 (0.003)

4.6 Relationship between QOL domains

Correlation coefficient was conducted to check the relation between two overall questions and four domains of QOL. The results showed that there is a positive relationship between QOL domains and rate of quality of life score. Table (4.14) illustrates that the strongest relationship between QOL and rate of quality of life score for the environmental domain (R=0.580), social domain (R=0.528), then physical domain (R=0.455), while the weakest relation between rate of quality of life and psychological domain (R=0.438), also, there is a good relationship between rate of quality of life score and participants satisfaction for their life (R=0.495). About the relationship between participant's satisfaction with heathy score and QOL domains. The result revealed that there is a positive relationship between participant's satisfaction with healthy score and QOL domains, the strongest relationship between QOL and satisfaction with healthy score for the physical domain (R=0.552), psychological domain (R=0.528), then social domain (R=0.455), while the weakest relation between rate of quality of life and environmental domain (R=0.438). Also, there is a positively and significantly relationship between domains each other of QOL. Table (4.14) illustrates the largest correlation of correlation matrix between environmental domain and psychological (R=0.703), follow by relation between environmental domain and physical domain (R=0.685), while the weakest relation in correlation matrix of QOL domains between social domains and physical domain (R=0.626).

Table 4.14: Correlation coefficient in two overall questions and four domains of QOL

		Physical domain	Psychological domain	Social domain	Environmental domain	quality of life	Satisfaction with their health
Physical domain	R	1					
	Sig						
Psychological domain	R	.681**	1				
	Sig	.000					
Social domain	R	.626**	.666**	1			
	Sig	.000	.000				
Environmental domain	R	.685**	.703**	.635**	1		
	Sig	.000	.000	.000			
quality of life	R	.455**	.438**	.528**	.530**	1	
	Sig	.000	.000	.000	.000		
Satisfaction with their health	R	.552**	.510**	.411**	.405**	.495**	1
	Sig	.000	.000	.000	.000	.000	
**Correlation is significant at the 0.05 level (2-tailed).							

Chapter five
Discussion

5.1 Introduction

The main purposes of this study are to assess the QOL from parents' perception and the effect of particular independent factors on the OQL of parents of children with disabilities in Hebron area in Palestine.

In this chapter, the obtained results will be discussed and compared to other research results.

5.2 Discussion

5.2.1. Sample characteristics:

The sample gender ratio was approximately representative to the Palestinian Central Bureau of Statistics (PCBS, 2018) ratio. 44.7% were males, and 55.3% were females. Two thirds of the parents were from (30-49) years old.

Place of the residence of most of the sample was town or city, 49.4 and 42.7%, respectively. 76.4 % of the sample is living below the poverty line (PCBS, 2018). About 54.2 % of the parents have no job, 84.53% of unemployed are mothers. Only 17.2% of mothers in the sample are employed, 36.7% of mothers have no monthly income, compare to 6.1% of fathers. 100.0% of the fathers between 18-29 years old are workers. these results stresses that the parents of children with disability suffer from poverty and need government financial help.

Almost half of the parents who suffer from physical or psychological illness, suffer from a disease which related to stressful life (diabetes, hypertension, anxiety, and depression)

57% of the children with disability of the participated parents were males, which representative. The children ages were well distributed on the age’s categories which the research aimed. The children disability types were distributed on, intellectual, physical speech, hearing and visual disabilities or multiple disabilities (29.24%, 15.25%, 8.9%, 4.66% and 4.24%, 32.63% respectively). The degree of the disability severity was distributed on moderate degree sever degree and mild degree of disabilities (53.81%, 31.36% and 10.59%, respectively. Thus, it covers a wild range of disabilities types.

5.2.2. Assessment of parents' quality of life:

Given the lack of a control or comparison group in this study, the authors could argue that the mean domain scores for the participants in this study were relatively similar to previous research. A comparison study in more than 20 countries on QOL scores using the WHOQOL-BREF measure showed that the means range on the four domains between 51 and 75 (SD: 11.2– 17.6) (Skevington et al., 2004). Using the score 60 out of 100 as the midpoint where QOL is judged on the WHOQOL-BREF measure to be neither good nor poor (Skevington et al., 2004), examination of the means in our study showed that poor QOL is relatively poor for the physical, psychological, social and environmental domains.

The overall mean satisfaction score of the parents with quality of life according to the assessment of the QOL's four domains was 49.91, while the mean satisfaction score of the parents with quality of life from their perception was 49.16. These results indicate that parent's perception where near to the QOL-BREF questionnaire. the lowest QOL score is the environmental domain, followed by the physical domain, then the social domain, and finally the domain which had the highest mean.

5.2.2.1 Overall parents' assessment of rate of QOL and satisfaction of health

Interestingly, similar percentages of parents rated their QOL as both good and very good categories, neither poor nor good category, and both poor and very poor categories. Moreover, almost half of parents rated their satisfaction with their health at both satisfied and very satisfied categories (44.1%), and only 23.4% rated as both dissatisfied and extremely dissatisfied categories.

However, parents’ rate mean of their overall QOL is 49.16, and overall mean of satisfaction with their health is 56.15. Both considered as poor.

5.2.2.2 Parents' assessment of Physical Domain

The physical domain includes needed medical treatment to function daily life, ability to perform daily living activities, satisfaction about work capacity, energy level for everyday life, physical pain level, sleep, ability to move. Parents' QOL mean in the term of the physical domain is (50.76), which is poor.

The highest mean score of the physical domains was for the needing of medical treatment to function in daily life, followed by the satisfaction with the ability to perform daily living activities, while the lowest mean was for the ability to get around.

The results of our study are partially consistent with the previous studies that found poor physical domain levels among parents of children with disability (Lin et al., 2009; Adegoke, Adenuga, Olaleye, & Akosile, 2014; Alwhaibi, Zaidi, Alzeiby, & Alhusaini, 2020).

The relatively low QOL's physical domain scores reported in this study may be referred to a variety of factors acting and interacting at the same time. Difficulties in dealing with children with disability have the capacity to spill over into various areas of their parents' life leaving them physically and psychologically exhausted (Barros, de Gutierrez, Barros, & Santos, 2019). In addition, regulatory problems and externalizing behaviors were associated with paternal stress. However, it is important to highlight that it is not necessarily the child with disability who negatively affects the physical domain of parents' QoL. Parents may encounter a pile-up of other factors that are not necessarily related to the child but can deteriorate the parents' QoL. Such factors may be related to parents' educational, occupational, and economic status (Boehm, Carter, & Taylor, 2015; Glinac, Matović, Delalić, & Mešalić, 2017).

5.2.2.3 Parents' assessment of psychological Domain

The psychological domain includes meaningful life, acceptance of body image, satisfaction with themselves, concentration level, level of life enjoys, negative feelings frequency such as blue mood, despair, anxiety, depression.

The psychological domain mean score was 55.40, which is poor. This domain mean score is the highest mean score comparing to the other QOL domains. The results are in contrast with Lin et al., (2009) who assessed Taiwan population QOL found that the physiological domain was the lowest satisfactory domain of the parents of children with disability.

The highest mean score of the psychological domain question was for the feeling about the meaning of the life, (70.11), which is considered above the average. This indicates that parents of children with disability, despite the difficulties, believe that their message in life is important and their life deserved to be lived.

The highest scores in the psychological health domain for parents can be partially explained by the strong believe and feel of meaningful life due to the religion respect. As it was found by Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh, (2017), they used DUREL questionnaire. The study revealed that parents of children with cerebral palsy (CP) had stronger religious beliefs than the healthy group and that their overall QOL and its domains, except for the social domains, were positively correlated with the parents' (DUREL) score. While the lowest mean score question was for the assessing the negative feeling such as blue mood, despair, anxiety, depression.

5.2.2.4 Parents' assessment of Social Domain

The social domain measured the personal relationship, social support, and sexual activity of the parents. In this study, average score of the social domain is poor (51.63). The cause of this may be of that parents take time to accept their children when they born, and as children grow up, parents may experience stress from society, especially when their children exhibit unpredictable misbehavior in public places. To avoid this situation, these parents sometimes refrain from social activities and limited their social networks (Heiman, 2002; Cavkaytar, Batu, & Cetian, 2008; Gorter, Ketelaar, Rosenbaum, Helders, & Palisano, 2009; Laurvick et al., 2006; Sen & Yurtsever, 2007).

The highest mean score was for the satisfaction of the personal relationships, followed by the satisfaction with sexual life. The lowest mean was for the satisfaction of the friends' support. However, all of them considered poor.

Gomez & Gomez (2013) performed a mixed study conducted on 76 parents of children with special needs. They use the World Health Organization Quality of Life- BREF (WHOQOL-BREF) Questionnaire Filipino Version. Interviews were also conducted among a sub-sample of the parents who answered the questionnaire earlier, assessed QOL of parents of Filipino Children with special needs. It found among the four QOL domains, social domain had the highest mean.

The social support the family receives from relatives, friends, neighbors, specialists and individuals society in general, facilitates the process of coexistence with a disability and reduces the burden of disability on the family because the presence of a disability in the family affects its activity if it does not find appropriate social support and support from others (Alwhaibi, Zaidi, Alzeiby, & Alhusaini, 2020; Manee, Ateya, & Rassafiani, 2016).

If the support diminishes, the family's activity is affected, as the presence of the child with disability limits the family's activities, as it needs continuous and special care. His presence in the family will not allow the parents to spend free time or go on special leave. Furthermore, if the child with a disability joint them, they may feel shy or fear the reactions of others, especially if the disability is clear, or greatly influences the behavior and behavior of the individual (Malhotra, Khan, & Bhatia, 2012).

Parents of children with disabilities suffer from stigma on two levels, the stigma directed at children with disabilities, and the stigma attached to the parent of a child with a disability. Consequently, the withdrawal of society from supporting these parents.

Parents' fear of this stigma prompts them to isolate themselves from society, hide children from view and exclude them from activities important for their development. Lead to a burden on them. These burdens will ultimately affect badly parent's QOL (Smith, & Anderson, 2014; Aldersey, et al., 2018).

Also, the continuous supervision by family members of the child with disability restrict the activity of the whole family, especially if the situation is severe, or multiple disabilities and requires supervision to preserve it and for the safety of others and not to harm them. It can be concluded that inappropriate social possibilities isolate the family and feel tired and depleted. Parents tired of attrition become less effective at keeping up with the child and less able to satisfy his needs (Heiman, 2002).

5.2.2.5 Parents' assessment of Environmental Domain

The environmental domain measured satisfaction with access to health services, conditions of their living place and transportation, daily life feelings, health level of physical environment, availability of the daily needed information, money adequacy to meet their needs, the opportunity level for leisure activities. In this study, average scores of the environmental domain is poor (44.41).

The lowest QOL scores in this study were reported in the environmental domain. The low scores in the environmental health domain can be explained by referring to the parents' socioeconomic status. Almost 77 % of the participants were living under the poverty line. The housing and living conditions are therefore expected to be unsatisfactory for those parents. This agree with the result of other studies (Ramires, Branco-Barreiro, & Peluso, Mugno, 2016; Mugno, Ruta, D'Arrigo, & Mazzone, 2007; Mahani, Rostami, & Nejad, 2013; Leung, & Li-Tsang, 2003). Skevington et al. (2004) found that QOL's in term of environmental domain was the lowest mean score in 14 countries out of 20 countries, includes Turkey and Israel.

However, Zawada et al. (2011), who found that environmental domain was least affected comparing to others domain.

The highest mean score was for the satisfaction with access to health services, followed by the satisfaction with transport, then the safe feelings in daily life. The lowest mean was for the extent opportunity for leisure activities.

These findings are in accordance with the result Gomez & Gomez, (2013), who found that the environmental domain is the lowest in all four domains. Furthermore, Leung & Li-Tsang, (2003) found that parents’ QOL in the environmental domain can be seriously affected due to intensive parental care and support that the children with disability needed, parents most of their time taking care of them. This could be due to the intensive parental care and support that the children with disability needed, and parents give most of their time to taking care of them. Therefore, parents have less time and freedom to manage and control their own plans the situation can become more difficult when the child’s level of function become more severe and when they require more intensive care and attention. These results explained the poor level of environmental domains among parents of the children with disability as found in this study. (Uskun & Gundogar, 2010; Barros, de Gutierrez, Barros, & Santos, 2019)

Parents of children with disabilities have problems associated with school services and professionals, as well as concerns about the future over their children, ineffective services, unmet needs, poor coordination and communication between service providers and parents can also affect the environmental field of quality of life (Heiman. 2002; Manee, Ateya, & Rassafiani, 2016).

Also, the very long term cares these children need and financial strain these families experience could have caused the reduction in the environment domain of quality of life (Barros, de Gutierrez, Barros, & Santos, 2019).

Other studies have shown higher mean scores of environmental domains compared to this study result (Haimour & Abu Hawwash, 2012; Perumal, Veeraraghavan, & Lekhra, 2014).

5.2.3. Differences in QOL domains due to sample characteristics:

5.2.3.1. Differences in QOL domains due to parents' socio-demographic characteristics:

The demographic variables (Gender, Age, Place of residence, Education level, Monthly income, Job, Marital status, Number of children with disability).

This study found that there is a negative relation between quality of life and both two variables age and number of children, also there is a positive relation between quality of life and education level, monthly income, and job. Whereas, there is a negative relation between satisfaction of heath and place of residence. Moreover, there is a positive relation between satisfaction of health and education level, monthly income, and job. The highest effect on physical is education level (R=0.387) with negative effect, place of residence on psychological dimensions (R=0.360) also with negative effect. For social and environmental dimensions, the highest effect of them is place of residence (R=0.38, R=0.314, respectively) with negative effect.

Leung & Li-Tsang (2003) conducted a cross-sectional study investigated the QOL of parents who have children aged from 6 to 12 years without or with developmental disabilities (cerebral palsy, mental retardation, Down syndrome, and developmental delay). The instrument used was World Health Organization Quality of Life Measure Abbreviated version (WHO-QOL BREF) tool. They found significant differences between the two groups of parents in the social and environmental domains of QOL. Parents of children with lower disabilities level seemed to have a higher QOL. However, there were no statistical differences in terms of parent's gender, level of education, marital status, work status, age, monthly family income, religion, and children’s ages.

Gomez & Gomez (2013) found a significant relationship between parental education and income with environmental domain. Hence, higher education leads to higher QOL while no relationship between parental gender and QOL.

Age of parents

This study indicated that there were not statistically differences in mean scores of the four domains of parents' QOL due to their age. This result is compatible with the result of several studies (Leung & Li-Tsang, 2003; Lin et al., 2009; Gomez & Gomez, 2013). However, it is in contrast with Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh, (2017). They found that older parents experienced poorer QOL. They suggested that an increase in age may be associated with depression that could negatively affect QOL.

Gender of parents

This study results revealed that there were not statistically differences in the mean scores of each QOL domains due to parents' gender. This is compatible with previous studies (Leung, & Li-Tsang, 2003; Gomez & Gomez, 2013; Parisi et al., 2016; Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh, 2017). This could be because the impact of child disabilities is affecting all the family especially fathers and mothers. Therefore, both will have similar quality of life.

These findings are in contrast with the results of others studies which revealed that mother has faced a lot of challenges because they take care of the children more than fathers, and the children problems affect QOL of mothers more than fathers (Smith, Innocenti, Boyce, & Smith, 1993; Cavkaytar, Batu, & Cetin, 2008; Sajedi et al., 2010;

Verma, Srivastava, & Kumar, 2017; Gogoi, Kumar, & Deuri, 2017; Misura & Memisevic, 2017; Glinac, Matović, Delalić, & Mešalić, 2017). Whereas Lin et al., (2009) found that gender significantly affect in social domain but not in the other three domains, as the social domain of QOL of fathers better than mothers.

Place of residence of the parents

The results revealed that there were statistically significant differences in mean scores of physical, psychological, social, and environmental domains due to the place of residency of the parents of children with disability.

The best QOL is for those who live in the city, this could be due to better facilities and greater number of associations for people with disabilities as well as the nature of the community and family relations that characterize the people of Hebron city.

This is compatible with Schertz, Karni-Visel, Tamir, Genizi, & Roth, (2016). They used the family's QOL Survey (FQOLS-2006) to examined family's QOL of Northern Israeli families having a child with a severe neurodevelopmental disability and its relation to socio-demographics. sample size was caregivers of 70 children, the place of residence was in Haifa and periphery (small cities population < 100,000, urban localities population of 10–20,000, localities population 2– 9999 rural areas with population less than 2000). They found that there was a significant difference in family's QOL favor parents living in the city.

Parents live in village have the lowest mean in all domain except in social domain. As well those live in camp have higher QOL than town and village in physical, social, and environmental domain. However, it is not significant difference because only one participant from the sample was from camp.

The results found that the environments with multiple resources available to parents, such as in city, might lead to better parents' QOL compare to those where such services are either more limited or less accessible.

Marital status of parents

This study found statistically differences in mean scores of psychological domain due to the marital status of the parents, married, divorced, widowed or other. However, it found that there were not statistically differences in mean scores of physical, social, and environmental domains due to marital status.

This could be due to the presence of the family in the form that consists of a husband and wife, which increases stability and harmony in life, responsibilities sharing as well as material and moral cooperation. This will conduct to relief of the psychological pain, sharing the complications of the disability of their children, and better hope for the future (Barros, de Gutierrez, Barros, & Santos, 2019). Whereas Lin et al., (2009), who found that the parents' marital status is not significantly correlated to all the four domains of the WHOQOL BREF domains.

While Leung & Li-Tsang (2003) found no statistical differences between the parents of children with developmental disabilities and parents of normal children in terms of parents' marital status. This indicates that the existence of children with disability in family do not affect the divorce rate comparable to parents who have no children with disability.

Educational level of parents

This study found statistically differences in mean scores of the four QOL's domains (psychological, physical, environmental, and social) due to educational level of parents. As parents who had a high school degree had higher mean score for the physical and social domains than the mean score of other education level. While the mean score of both the psychological and environmental domains of parents who had a college degree, are the highest comparing to the mean score of other education level.

According to the study result, there is a statistically significant relationship between education level of parents and the quality of life. This could be because parents with higher education have the ability to read and learn about what is related to the disability of their children more, also the ability to adapt to the disability of their children. Unlike less educated parents, who have limited access to information that can benefit them. The result is contrary with the results by Gomez & Gomez (2013), who found that the parental level of education had effect on the environmental domain but have no significant effect on other domains.

This study observed that higher education can leads to higher-monthly income that can support the financial and healthcare needs, and address safety issues within the home and in the family’s immediate community.

The educational level plays a fundamental role in determining the ways and methods that constitute parents in raising their children on the one hand, and in the degree of their awareness of the causes that lead to disability and ways to prevent them from the other hand. Also, the educational level leads to improving the living and functional level of parents, so they often occupies better job positions, which leads to differences and variation in the economic, health and social level of their families, and this is thus reflected on the parents' QOL.

This result is in contrast with Ones, Yilmaz, Cetinkaya, & Caglar (2005) prospective, case control study that assessed the Quality of Life of Mothers of Children with Cerebral Palsy (MCCPs). Their study found that there was no significant difference between the mothers of child with CP and mother of healthy children regarding educational level of mothers. Furthermore, the result is not consistent with Leung, & Li-Tsang, (2003), a cross-sectional study investigated the QOL of parents who have children aged from 6 to 12 years without or with developmental disabilities (cerebral palsy, mental retardation, Down syndrome, and developmental delay. The study used (WHO-QOL BREF) instrument to measure QOL. They found that parents of children without or with developmental disabilities had no statistical differences in terms of parents' level of education.

Studies conducted in this aspect may include a contradiction in trends to the extent they differed with researchers ’expectations, sometimes the individual may expect that the more the cultural and educational level of the parents that their attitudes towards the child with disability will be better, and their ability to the problems associated with disability is easier by virtue of their information and their cultural level which gives them the ability to provide appropriate methods to deal with their child with disability, and searching for suitable centers and institutions for his care and training (Samira, 2019).

Monthly income of parents

The results indicated statistically differences in mean scores of the QOL domains (psychological, physical, environmental, and social domains) due to parents' economic level, in favor of the high monthly income. This suggested that the monthly income variable is an important indication of QOL for parents of child with disability. The study confirmed that parents with high economic level have higher QOL in comparison with parents with low income level.

When the family’s income is high, the family becomes more able to cope with the state of disability because the presence of the disability in the family drains financial resources through the high costs of medical treatment or the costs of performing surgical operations such as cochlear implants, limb operations, or purchasing medicines, tools, and equipment, also, for various disabilities, speech and natural therapy. Therefore, it can be speculated that the lack of adequate financial resources entails a set of psychological, social, and economic pressures that burden the family and lead to a poor quality of life.

Parents with monthly income more than 3000 NIS had a higher mean score for the physical, psychological, and environmental domains. While the highest mean score of social domains was for parents with monthly income between 1000NIS and 2000NIS.

This result is in contrast with Gomez & Gomez, 2013, who found that a relationship was seen between parental incomes on the environmental domain favorable the higher income, not among the other three.

The current results are in line with the result of the study done by Lin et al., (2009) who examined quality of life of 597 caregivers caring for their children/adolescents with intellectual disabilities in Taiwan. They found that the household income is significantly correlated to all QOL in the four domains.

However, Leung, & Li-Tsang (2003) found that there were not statistical differences between parents of children without and with developmental disabilities in terms of parents' monthly income. That indicates that there was not significant correlation between the existence of children with disability in the family and its monthly income.

Occupational status of parents

The present study found that there were not statistically differences in mean score of physical and social domains due to parents' occupational status. While there were statistically differences in mean score of psychological and environmental domains.

This could be due to the existence and nature of the work affects the quality of life for the parents because the work improves the economic situation, which in turn improves the in the psychological and environmental domains. The parents who work as retailers had a higher mean score for the psychological and environmental domains than the mean score of participants who's working in other jobs.

The existence and nature of parents' job affects the QOL of the parents, this explained by that the network, social variety, and their ability to feel their own successful, which in turn improves the psychological and environmental domains.

Barros, de Gutierrez, Barros, & Santos (2019) a cross-sectional study evaluated the quality of life (QOL) and burden of primary caregivers of children and young adults with and without disabilities found that the higher the occupation time the better the QOL in all domains.

Ones, Yilmaz, Cetinkaya, & Caglar (2005) a prospective, case control study assessed the Quality of Life of Mothers of Children with Cerebral Palsy (MCCPs) found that there was no significant difference between the mothers of child with CP and mother of healthy children regarding occupational status of mothers.

Numbers of children with disability parents have

Interestingly, the results showed that there were not statistically differences in mean scores of QOL domains due to number of children with disability. This result is compatible with other studies (Schertz, et al., 2016; Gomez & Gomez, 2013).

The result is unexpected. It might be explained by considering that a family with more than one child with disability has obtained social recognition and people are aware of this family and there is no reason to hide the problem. As a result, the family has become more able to deal with the reality of disability.

5.2.3.2 Differences in QOL domains due to Parents' illness

The parents' physical illness (Diabetes, Hypertension, Weakness of the body, Bone pain, Visual impairment) and psychological illnesses (Epilepsy, Schizophrenia, Anxiety, Depression).

Physical illness

The results showed that there were statistically differences in mean scores of physical, psychological, and environmental domains due to parents' physical illness. However, it showed that there were not statistically differences in mean scores of social domains due to their physical illness.

This study suggested that the effect of parents of children with disability physical illness on their QOL depends on the type of the parents' physical illness.

For parents suffering from diabetes, there were statistically differences of mean score of physical and psychological due to diabetes. While there were not statistically differences of mean scores of social domain and environmental domain.

For parents suffering from hypertension, there were statistically differences in mean scores of physical due to hypertension. While there were not statistically differences in mean scores of psychological, environmental, and social domains.

For parents' weakness of the body, there were not statistically differences of mean scores of physical, psychological, environmental, and social domains due to parents' weakness of the body. For parents suffering from bone pain, there were statistically differences of mean scores of physical and environmental domains due to bone pain. While there were not statistically differences of mean scores of psychological and social. For parents suffering from visual impairment, there were statistically differences of mean scores of physical domains due to visual impairment. While there were not statistically differences of mean score of psychological, social, and environmental due to visual impairment problems.

Chakraborty, Rao, Shenoy, Davda, & Suprabha (2019) assessed parent for children with disability affected the physical of the parents. They found that physical health quality of life was similar between parents of children without and with disability. That indicates that there is no significant correlation between existence of child with disability in family and parent physical health.

Psychological illness

The study showed that there were not statistically differences in parents' QOL domains mean scores due to psychological illness, except in the case of depression. There was significant correlation between depression and the parents' QOL in the term of physical domain.

This study suggested that the quality of life is not affected by the mild psychological illness of the parents.

Sajedi et al. (2009) preformed a case control study determined the severity of depression in mothers of children with CP in comparison with mothers who have normal children. 43 mothers who had younger than 8year-old children with CP in Tehran, Iran, were selected. Seventy-seven mothers of normal children, serving as the control group. They found that having a child with CP increased the risk of developing depression in mothers.

5.2.3.3. Differences in QOL domains due to characteristics of children with disability :

The children with disability sociodemographic characteristics (gender and age), and type of the disability (physical disability, visual disability, hearing disability, speech disability, Intellectual disability, multiple disabilities) and severity of the disability.

The study found that there is a positive significant relation between physical domain and speech disabilities (R=-0.275). Also, there is a positive significant relation between social domain and both speech and visual disabilities (R=0.137, R=0.261, respectively). In addition, there is a positive relation between environmental domain and both speech and visual disabilities (R=0.158, R=0.132, respectively). Whereas there is a negative relation between environmental domain and physical disabilities (R=0.164). Furthermore, there is a negative relation between QOL domains and speech disabilities in four domains. Speech disabilities have the highest and significant effect on both quality of life and satisfaction of heath. Regarding to age and severity of the disability. The result found that there is no relationship between severity of the disability and QOL domains, whereas there is a significant relation between age categories and physical domain.

Age of children with disability

The study revealed there were statistically differences of mean scores of physical domain due to children with disability age. Interestingly, mean score of physical domain increasing as the age of the child increasing, as the highest mean score of children who’s aged between 16 years and 18 years. However, other domains mean scores were not significantly affected by child age.

These results are compatible with several studies (Schertz et al., 2016; Gomez & Gomez, 2013). While it is in contrast with Majumdar & Jain, (2020) who observed that as age of the child increased, parents' QOL became better in all domains.

This could be because the child's weight increased by increasing of the age and need more help from parent, especially with sever disability, thus, the child cannot help him\herself. As the children were relatively young, parents could manage their daily activities, thus placing not as much of burden on the parents. As he's growing, burdens are increasing and need more money and time (Shirmard, Seyyedi, Toopchizadeh, & Ghojazadeh, 2017; Uskun & Gundogar, 2010).

These children also need special long-term or lifelong efforts from society and government (Azaula et al., 2000; Leonard, Johnson, & Brust, 1993). Other studies have shown that the challenges faced by parents of children with disabilities are continuous and increasing as a result of children's development, the aging of parents and their vulnerability (Barros, de Gutierrez, Barros, & Santos, 2019). Consequently, the presence of these children may affect the quality of life of the parents in general. Caring for a child with disability may have physical, psychological, and emotional consequences that may lead to psychological and health problems for parents (Davis & Gavidia-Payne, 2009).

It may be due to the fact that initially parents passed through a phase of denial which increased their own stress levels & commitments towards the child, but with time, acceptability of the fact and a self-learning process of coping developed (Heiman, 2002; Hsieh, Huang, Lin, Wu, & Lee, 2009).

This is in contrast with Lin et al. (2009) found that as the child age increased the caregivers QOL become better and there is statistically significant correlation between the age of children/adolescent with disability and their caregivers QOL domains except in environmental domain.

Gender of children with disability

The study conducted that there were not statistically differences of mean scores of the QOLs' domains (physical, psychological, social, and environmental) due to gender of the child with disability.

These findings are similar to the results of several studies (Gomez & Gomez, 2013; Perumal, Veeraraghavan, & Lekhra, 2014; Chakraborty, Rao, Shenoy, Davda, & Suprabha, 2019). They concluded that the gender of the child does not affect the QOL of the parents in all domains.

Whether the child is male or female, parents find it difficult to deal with his characteristics, as they overburden them and incur additional burdens, whether financial or physical and may result in many problems that are affected badly the quality of their lives. Therefore, parents QOL is poor in both cases.

Type of disability

This study findings revealed that there were statistically differences in mean scores of parents' QOL domains due to the type of the disability, though, it depends on the type of the disability. There were significant differences in mean scores of physical, social, and environmental domains due to disabilities type. However, psychological domain was not significantly affected.

For children with physical disability, there were statistically differences in mean scores of environmental domain due to physical disability. While there were statistically differences in mean scores of psychological, physical, and social domains.

The highest parents' QOL, in term of the physical, social, and environmental domains, is for parents of children with speech disabilities, followed by visual disabilities.

These findings are in accordance with result done by Mugno, et al., (2007) who evaluated QOL in parents of children with Cerebral Palsy (CP), Pervasive Development Disorder (PDDs) or Mental Retardation (MR) as compared to a control group (CG). They found that in parents of MR group and control, the QOL were not significantly affected. However, the PDDs group mothers showed lower scores in the physical domain and the CP group showed lower scores in the psychological domain.

This is compatible with Perumal, Veeraraghavan, & Lekhra, 2014 used the WHOQOL-BREF questionnaire to evaluate the QOL in parents of Children with autism and physically disabled. They found that parents with Children with Autism Spectrum disorder showed significantly poor quality of life compared with parents of control group and parents of children with physical disabilities in all the four domains of WHOQOL-BREF. A significant difference was found in social and environmental domain of WHOQOL-BREF between physical disability group and control group, but little differences were observed in between in physical domain and psychological domain.

Accordingly, physical disabilities are significantly affecting the differences of mean score of parents' QOL in the term of environmental domain .While it is not significantly affecting the differences of mean score of parents' QOL in the term of physical, psychological , and social domains.

Otherwise, each of hearing and intellectual disability was not significantly affecting the differences of mean score of parents' QOL domains. In additions, visual disability did not significantly affect the differences of mean score of physical and psychological domains. Whereas visual disability significantly affected QOL in terms of social and environmental domains.

Whereas speech disability favorably significantly affected the statistically differences of mean score of physical, psychological, environmental, and social domains.

Otherwise, there is a statistically differences of mean scores in social domains between children with multiple disabilities and others with one disability. Though, there are not statistically differences of mean score of each of physical, psychological, and environmental domains. Whereas Lin et al., (2009) found no statistically significant effect of children with multiple disabilities as compared to children with single disability on parents' QOL domains.

Schertz et al., (2016) examined family quality of life of Northern Israeli families having a child with a severe neurodevelopmental disability and its relation to socio-demographics.

sample size was caregivers of 70 children having autistic spectrum disorder (41.4%), intellectual disability (21.4%), cerebral palsy (17.1%), genetic syndromes (17.1%) and sensorineural hearing loss (2.9%) answered the family's QOL Survey (FQOLS-2006). The place of residence was in Haifa and periphery. They found that there is no statistical relationship between the different types of disability of children and their parents' QOL.

Malhotra, Khan, & Bhatia, (2012) used the WHOQOL-BREF questionnaire to assess parents' QOL of children with mental retardation, autism and compared to normal healthy children. They found that there was no statistically significant difference in QOL of parents in both MR and autism group in all the four domains of QOL. But those parents had significant impairment in all the four domains of QOL as compared to parents of normal healthy children.

Hsieh et al., (2008), a cross-sectional study, assessed QOL, health satisfaction and family impact on parents of children with disabilities in Taiwan. WHOQOL-BREF for health-related quality of life was used. They found that the quality of life of parents was not affected by the sex and age of children, parental age, employment status, family structure or the children’s disabilities.

Severity of disability

This study revealed that there was not statistically significant relationship between children disability's severity level (mild, moderate, or severe) and parents' QOL domains.

The inability of this study to find a significant difference between those three severity levels may not mean that it does not exist. It means that the study did not detect the differences between the mild, moderate, and severe degrees of disability because of the way the severity variable itself was measured. This result can be explained by the subjective nature of the measured severity variable as there were no clear borderlines between the three severity levels (mild, moderate, or severe) from the parents’ perspective. The results of this study were compatible with several studies (Lin et al., 2009; Ones, Yilmaz, Cetinkaya, & Caglar, 2005; Prudente, Barbosa, & Porto, 2010; Perumal, Veeraraghavan, & Lekhra, 2014).

Gomez & Gomez 2013 found the severity of the disabilities was found to be not related to parental QOL score, but the highest relationship was seen on the physical domains and environmental domains of their QOL scores. Which compatible with this study's results that highest relationship was seen on the physical domains and environmental domains of their QOL scores. And the mean scores of QOL domain are the highest in case of mild disabilities.

The study results were not in line with the findings of Samira, (2019), who found that parental QOL for mothers of children with autism in Al Khartoum city was associated with the severity of their children’s disability condition. Moreover, in contrast with Kalf Allah, (2015), who revealed that the degree of disability is closely related to the quality of life for parents of mentally children with disability, the more the degree of disability, the poorer the quality of life for the family.

Eker & Tüzün (2004) the first study evaluated of quality of life of mothers of children with cerebral palsy compared with those who have children with minor health problems used Short Form Health Survey (SF-36). The severity of a child’s motor disability was assessed using the Gross Motor Function Classification System (GMFCS). Found that there were significant correlations between the severity of a child’s motor disability and the role physical; vitality; role emotional; and mental health subscales of the SF-36 in a negative direction.

5.2.3. Relationship between QOL domains:

The result found that there are statistically significant correlations between QOLs’ domains with each other and with parents’ perceptions about their rate of QOL score and their satisfaction about their health. The results showed that there is a positive relationship between QOL domains and rate of quality of life score.

There is a significant positive relationship between QOL’s domains with each other. Furthermore, the strongest correlation was between environmental domain and psychological (R=0.703), follow by relation between environmental domain and physical domain (R=0.685). While the weakest correlation was between social domains and physical domain (R=0.626). The result conducted that the strongest relationship between QOL domains and rate of quality of life score was for the environmental domain (R=0.580), followed by social domain (R=0.528), then physical domain (R=0.455). While the weakest correlation was between rate of quality of life and psychological domain (R=0.438). These results were in line with study of (Gholami, Jahromi, Zarei, & Dehghan, 2013).

5.3 Conclusion

The current study assessed the quality of life of parents of children with disabilities aged from 18 to 59 years old in Hebron area. The results revealed that 14.61% of the sample reported that they suffered from physical illnesses, 2.25% reported that they suffered from psychological illnesses and 2.81% suffered from physical and psychological illnesses together. The gender of children in the sample was 57% males and 64.2% of the children in the sample aged from 10 to 18 years old.

Children suffered from five types of disabilities, 29.24% of children have intellectual disabilities, 8.9% of them have speech disabilities, and 15.25% have a physical disability, however 4.24% and 4.66% of them have visual, and hearing disabilities respectively, while 32.63% have a multiple disability. However, 5.08% they didn't determine their disabilities type.

53.81% of the children with disabilities have a moderate degree of disabilities, while 31.36% of them have a sever degree, and only 10.59% have a mild degree. However, 5.08% didn't determine their disabilities degree.

30.8% of participants rate their QOL as good and very good, 35.8% responded neither poor nor good, and 33.5% answered poor and very poor. About satisfaction with their health, 44.1% of them were satisfied and very satisfied, 32.4% stated that neither satisfied nor dissatisfied, and 23.4% reported that they were dissatisfied and extremely dissatisfied. this study highlighted that that psychological domain was least affected by children's disability with the mean score of 55.4.

The results concluded that the relationship between QOL of parents of children with disabilities is not statistically significant effect due to parents' and children's gender, parents' age, number of children with disability, level of disability severity and types of disability (visual, hearing, and intellectual disabilities).

Whereas the results concluded significant correlation between parents' QOL and parent's monthly income, parents' education level, place of residence, parents' physical illness, and children type of disability (speech disability).

5.4 Strength of the study

It was done in Hebron in Palestine and the first study that assessed the QOL of parents of children with disabilities in Palestine. It included mothers and fathers.

Study sociodemographic characteristic of parents and child and if they affect the quality of parents of children with disabilities. It studied different age groups from 0-18 years and many type and severity level of disabilities.

This research explores an important topic well researched in western countries but not well researched in Arab world and in occupied countries as Palestine. It has significant global relevance in regard to parents of children with disabilities

5.5 Limitations of the study

Although the results are important and informative, they should not be generalized to the Palestinian population because it is a cross sectional study and limited number of the study group. Other potential variables such as the number of dependents at home, the family structure (nuclear or extended) should be included. Psychiatric comorbidity in the children was not assessed.

The QOL of parents was only measured by the WHOQOL-BREF a self-report data collection tool, and no physical examination or review of the medical records of the parents was performed. To reduce social desirability, self-completion mode is adopted and there is no pressure of an interviewer to whom one has to respond, the answers are more truthful.

Therefore, the instrument used to assess parental QOL was distributed by the centers' teachers to the families of the study group, where they answered the questioner by them self at home, but this may be led to misunderstanding of the questioner statements.

5.6 Recommendations

Recommendations for the parents

- Health workers and professionals in Palestine should work on improving parents' knowledge about the negative effects of children with disabilities on their quality of life.
- Parents need to start ask for help and support from professional to understand child problems and how to react with them.

Recommendations for the health professionals

- Health workers and professionals in Palestine should give attention on the negative effect associated with birth of children with disabilities.
- To provide support, counseling, and psychotherapy if needed to parents.
- Health workers should increase their knowledge and capacity in the field of children disabilities.

Recommended research in the future:

- There is a need for further quantitative and qualitative studies to assess the quality of life of parent of children with disabilities in other areas in Palestine.
- Studies on mothers and fathers QOL separately and make comparison.
- Case-control studies to compare with QOL general population in Palestine.

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Annex (a)

جامعة القدس
دائرة الصحة العامة

أختي/ أخي المبحوث
تحية وبعد ...

تقوم الباحثة وهي من طلبة كلية الصحة العامة، برنامج الماجستير " –جودة حياة اباء الاطفال ذوي الاعاقة من عمر 0 الى 18 سنة وذلك من أجل استكمال متطلبات التخرج، هذه الاستبانة تتعلق بمدى صحتك والجوانب المحيطة بحياتك. من فضلك أجب على كل الأسئلة، إذا لم تكن متأكدا من الإجابات التي تريد اختيارها، حاول أن تختار الإجابة التي تلائمك أكثر والتي يمكن اعتبارها إجابتك الأولى. يجب أن تضع في الحسبان كل ما لديك من معايير وآمال ومَسرات واهتمامات. إننا نسألك أن تفكر في حياتك منذ اعاقة طفلك. أرجو منك التعاون بالإجابة على أسئلة الاستبانة. علم ا بأن الدراسة هي لأغراض البحث العلمي والأكاديمي فقط، وسيتم المحافظة على سرية الإجابة، لذلك لا داعي لكتابة الاسم أو ما يشير إليك، شاكرة لك حسن تعاونك في إنجاح هذه الدراسة

أطيب التحيات
الطالبة: ميرفت العملة

يتناول هذا القسم البيانات الشخصية للاب او الام الرجاء وضع اشارةْ (X) في مكان الاجابة الملائمة للأسئلة:

59	☐ 18سنة- 29سنة ☐ 30سنة -39 سنة ☐ 40سنة -49 سنة ☐ 50 سنة -59 سنة
-2الجنس:	☐ذكر ☐ انثى
-3مكان السكن:	☐مدينة ☐ بلدة ☐ مخيم ☐ قرية
-4الحالة الاجتماعية:	☐متزوج ☐ مطلق ☐ أرمل ☐ اخرى
-5المستوى التعليمي	☐غير متعلم ☐ ابتدائي ☐ اعدادي ☐ثانوي ☐ جامعي
-6الوضع الاقتصادي حسب دخل الاسرة شهريا	☐ لا يوجد دخل ☐ اقل من 1000شيكل ☐ من1000- 2000شيكل ☐ من 2001-3000شيكل ☐ أكثر من 3000شيكل
-7الوظيفة :	☐لا يوجد ☐ عامل ☐ موظف حكومي ☐ موظف قطاع خاص ☐ مزارع ☐ تاجر
-8هل تعانى من أي مرض جسدي في الوقت الحالي ؟	☐نعم ☐ لا إذا كانت الاجابة نعم، اذكرها...
-9هل تعانى من أي مرض نفسي في الوقت الحالي ؟	☐نعم ☐ لا إذا كانت الاجابة نعم، اذكرها...

:في مكان الاجابة الملائمة للأسئلة (Xْ) يتناول هذا القسم البيانات الشخصية للأطفال الرجاء وضع اشارةْ

بيانات شخصية للطفل او الطفلة

: في مكان الاجابة الملائمة للأسئلة (Xْ) يتناول هذا القسم بيانات شخصية (للطفل او للطفلة) المعاق/ة الرجاء وضع اشارةْ

ا-كم عدد الاطفال ذوي الاعاقة؟ اذكر العدد: ....

ب-اذكر بيانات كل طفل في الجدول حسب عدد الاطفال ذوي الاعاقة

في مكان الاجابة المناسب حسب عدد الاطفال المعاقين لديك إذا كان لديك طفل واحد عبئ الصف الاول فقط في الجدول واذا X الرجاء وضع كان لديك طفلين عبئ الصف الاول عن الطفل الاول والصف الثاني عن الطفل الثاني وهكذا اذا كان عدد الاطفال ذوي الاعاقة لديك اكثر

	عمر الطفل-1	جنس الطفل-2	نو ع الاعاقة-3	شدة الاعاقة-4
الطفل الاول	سنة -3 سنوات 0 ☐ سنوات-6سنوات4 ☐ سنوات -9 سنة 7 ☐ سنة-12 سنة10 ☐ سنة– 15 سنة13 ☐ سنة–18 سنة 16 ☐	ذكر ☐ انثى ☐	اعاقة حركية☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة ☐	بسيطة ☐ متوسطة ☐ شديدة ☐
الطفل الثاني	سنة -3 سنوات 0 ☐ سنوات-6سنوات4 ☐ سنوات -9 سنة 7 ☐ سنة– 12 سنة10 ☐ سنة– 15 سنة13 ☐ سن–18 سنة 16 ☐	ذكر ☐ انثى ☐	اعاقة حركية☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة ☐	بسيطة ☐ متوسطة ☐ شديدة ☐
الطفل الثالث	سنة -3 سنوات 0 ☐ سنوات-6سنوات4 ☐ سنوات-9 سنة 7 ☐ سنة– 12 سنة10 ☐ سنة– 15 سنة13 ☐ سنة –18 سنة16 ☐	ذكر ☐ انثى ☐	اعاقة حركية ☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة☐	بسيطة ☐ متوسطة ☐ شديدة ☐
الطفل الرابع	سنة -3 سنوات0 ☐ سنوات-6سنوات4 ☐ سنوات-9 سنة7 ☐ سنة –12سنة10 ☐ سنة – 15سنة13 ☐ سنة–18سنة16 ☐	ذكر ☐ انثى ☐	اعاقة حركية ☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة☐	بسيطة ☐ متوسطة ☐ شديدة ☐
الطفل الخامس	سنة -3 سنوات0 ☐ سنوات-6سنوات4 ☐ سنوات-9 سنة7 ☐ سنة –12سنة10 ☐ سنة – 15سنة13 ☐ سنة–18سنة16 ☐	ذكر ☐ انثى ☐	اعاقة حركية ☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة☐	بسيطة ☐ متوسطة ☐ شديدة ☐
الطفل السادس	سنة -3 سنوات0 ☐ سنوات-6سنوات4 ☐ سنوات-9 سنة7 ☐ سنة –12سنة10 ☐ سنة – 15سنة13 ☐ سنة–18سنة16 ☐	ذكر ☐ انثى ☐	اعاقة حركية ☐ اعاقة بصرية☐ اعاقة سمعية ☐ اعاقة نطقية☐ اعاقة ذهنية ☐ اعاقة متعدد مركبة☐	بسيطة ☐ متوسطة ☐ شديدة ☐

مقياس جودة الحياة

السؤال	ضعيف جداً	ضعيف	متوسط	جيد	جيد جداً
-1كيف تقيم جودة حياتك؟					
السؤال	غير مقتنع تمامًا	غير مقتنع	متوسط	مقتنع	مقتنع تماماً
-2إلى أي مدى أنت راضي عن وضعك الصحي ؟					
السؤال	ابدا	قليلاً	متوسط	كثيرا جداً	إلى أبعد الحدود
-3إلى أي مدى تشعر أن الألم الجسماني يمنعك من القيام بأداء شيء تحب تأديته؟					
-4إلى أي مدى تحتاج إلى العلاج الطبي حتى تؤدى وظيفتك اليومية؟(الادوية(					
-5إلى أي مدى تستمتع بالحياة؟ (مبسوط وسعيد بالحياة(					
-6إلى أي مدى تشعر أن حياتك ذات قٌيمة؟ (حياتك مهمة بالنسبة لك وللآخرين(					
-7إلى أي مدى أنت قادر على التركيز؟					
-8إلى أي مدى تشعر بالأمان في حياتك اليومية؟					
-9إلى أي مدى تشعر بملاءمة البيئة المحيطة بك لحياتك واحتياجاتك وتعتبرها بيئة صحية ؟ (المكان الذى تعيش فيه يتوفر فيه كل ما يلزمك ولا يوجد به ما يضر بصحتك(					
-10هل لديك الطاقة الكافية لممارسة حياتك اليومية؟					
-11هل أنت قادر على قبول مظهرك الجسماني؟					
-12هل لديك المال الكافي لتلبية احتياجاتك؟					
-13إلى أي مدى تتاح لديك المعلومات التي تحتاجها في حياتك اليومية؟					
-14إلى أي مدى تتاح لديك الفرصة للأنشطة الترويحية في اوقات الفراغ؟					

الأسئلة التالية تستفسر عن مدى حجم أشياء معينة تعرضت لها منذ اعاقة طفلك:

الأسئلة التالية تستفسر عن مدى شعورك بالاستحسان أو الرضا عن جوانب متعددة في حياتك منذ اعاقة طفلك:

السؤال	قليلا جداً	قليلاً	متوسط	جيد	جيد جداً
-15ما هي مقدرتك الصحية على التحرك ؟ (لعب رياضة)					
السؤال	مرتاح جداً	مرتاح	متوسط	غير مرتاح	غير مرتاح ابدا
-16إلى أي مدى تشعر بالارتياح في نومك؟					
-17إلى أي مدى أنت راض عن مقدرتك في أداء أنشطتك اليومية؟ (اكل، لبس، حمام)					
-18إلى أي درجة أنت راض عن مقدرتك في أداء عملك؟					
-19إلى أي مدى أنت راض عن نفسك؟					
-20إلى أي مدى أنت راض عن علاقاتك الشخصية؟ (راضي عن علاقتي بأصدقائي، أولادي، شريك حياتي، أقربائي وجيران)					
-21إلى أي مدى أنت راض عن حياتك الجنسية؟					
-22إلى أي مدى أنت راض عن المساندة التي يقدمها أصدقائك؟					
-23إلى أي مدى أنت راض عن حالة المنزل الذى تعيش فيه؟					
-24إلى أي مدى أنت راض عن حصولك على الخدمات الصحية؟ (ادوية، تأمين صحي، عبادات قريبة)					
-25إلى أي مدى أنت راض عن توفر وسائل النقل لديك؟					
السؤال	أبدا	نادرا	أحيانا	في معظم الأحيان	دائما
-26إلى اي مدى تنتابك مشاعر سلبية مثل الحزن والياس والقلق والاكتاب؟					

Annex (b)

			Male	Female
Job	not at all	Count	15	82
		%	18.8%	82.8%
	worker	Count	38	6
		%	47.5%	6.1%
	Government employee	Count	17	8
		%	21.2%	8.1%
	private sector employee	Count	8	2
		%	10.0%	2.0%
	Farmer	Count	1	1
		%	1.2%	1.0%
	Seller	Count	1	0
		%	1.2%	0.0%
	Total	Count	80	99
		%	100.0%	100.0%
Education Level	None at all	Count	12	8
		%	15.0%	8.1%
	elementary	Count	7	19
		%	8.8%	19.2%
	preparatory	Count	16	33
		%	20.0%	33.3%
	High School	Count	22	24
		%	27.5%	24.2%
	College	Count	23	15
		%	28.8%	15.2%
	Total	Count	80	99
		%	100.0%	100.0%
Material status	Married	75	85	160
		94.9%	86.7%	90.4%
	divorced	1	1	2
		1.3%	1.0%	1.1%
	widowed	0	10	10
		0.0%	10.2%	5.6%
	Other	3	2	5
		3.8%	2.0%	2.8%
	Total	79	98	177
		100.0%	100.0%	100.0%

Annex (c)

			Male				Female			
			18-29	30-39	40-49	50-59	18-29	30-39	40-49	50-59
Job	not at all	Count	0	5	4	6	9	28	35	10
		%	0.0%	19.2%	14.8%	28.6%	81.8%	82.4%	87.5%	71.4%
	Worker	Count	6	13	12	7	1	1	3	1
		%	100.0%	50.0%	44.4%	33.3%	9.1%	2.9%	7.5%	7.1%
	Government employee	Count	0	7	5	5	1	2	2	3
		%	0.0%	26.9%	18.5%	23.8%	9.1%	5.9%	5.0%	21.4%
	private sector employee	Count	0	0	6	2	0	2	0	0
		%	0.0%	0.0%	22.2%	9.5%	0.0%	5.9%	0.0%	0.0%
	Farmer	Count	0	1	0	0	0	1	0	0
		%	0.0%	3.8%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%
	Seller	Count	0	0	0	1	0	0	0	0
		%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%
	Total	Count	6	26	27	21	11	34	40	14
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Education Level	None at all	Count	0	3	3	6	0	1	4	3
		%	0.0%	11.5%	11.1%	28.6%	0.0%	2.9%	10.0%	21.4%
	Elementary	Count	1	4	1	1	1	6	8	4
		%	16.7%	15.4%	3.7%	4.8%	9.1%	17.6%	20.0%	28.6%
	Preparatory	Count	1	4	9	2	5	15	10	3
		%	16.7%	15.4%	33.3%	9.5%	45.5%	44.1%	25.0%	21.4%
	High School	Count	4	7	7	4	4	7	11	2
		%	66.7%	26.9%	25.9%	19.0%	36.4%	20.6%	27.5%	14.3%
	College	Count	0	8	7	8	1	5	7	2
		%	0.0%	30.8%	25.9%	38.1%	9.1%	14.7%	17.5%	14.3%
	Total	Count	6	26	27	21	11	34	40	14
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Material status	Married	Count	6	22	26	21	9	32	35	9
		%	100.0%	88.0%	96.3%	100.0%	90.0%	94.1%	87.5%	64.3%
	Divorced	Count	0	1	0	0	0	0	1	0
		%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%
	Widowed	Count	0	0	0	0	1	1	3	5
		%	0%	0%	0%	0%	10.0%	2.9%	7.5%	35.7%
	Other	Count	0	2	1	0	0	1	1	0
		%	0.0%	8.0%	3.7%	0.0%	0.0%	2.9%	2.5%	0.0%
	Total	Count	6	25	27	21	10	34	40	14
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	not at all	Count	0	1	3	2	3	9	19	5
		%	0.0%	3.8%	11.1%	9.5%	27.3%	26.5%	48.7%	35.7%
	less than 1000 NIS	Count	1	8	3	4	2	6	11	4
		%	16.7%	30.8%	11.1%	19.0%	18.2%	17.6%	28.2%	28.6%
	from 1000-2000 NIS	Count	4	10	10	6	5	11	4	5
		%	66.7%	38.5%	37.0%	28.6%	45.5%	32.4%	10.3%	35.7%
	from 2001-3000 NIS	Count	1	4	7	4	1	7	4	0
		%	16.7%	15.4%	25.9%	19.0%	9.1%	20.6%	10.3%	0.0%
	more than 3000 NIS	Count	0	3	4	5	0	1	1	0
		%	0.0%	11.5%	14.8%	23.8%	0.0%	2.9%	2.6%	0.0%
	Total	Count	6	26	27	21	11	34	39	14
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

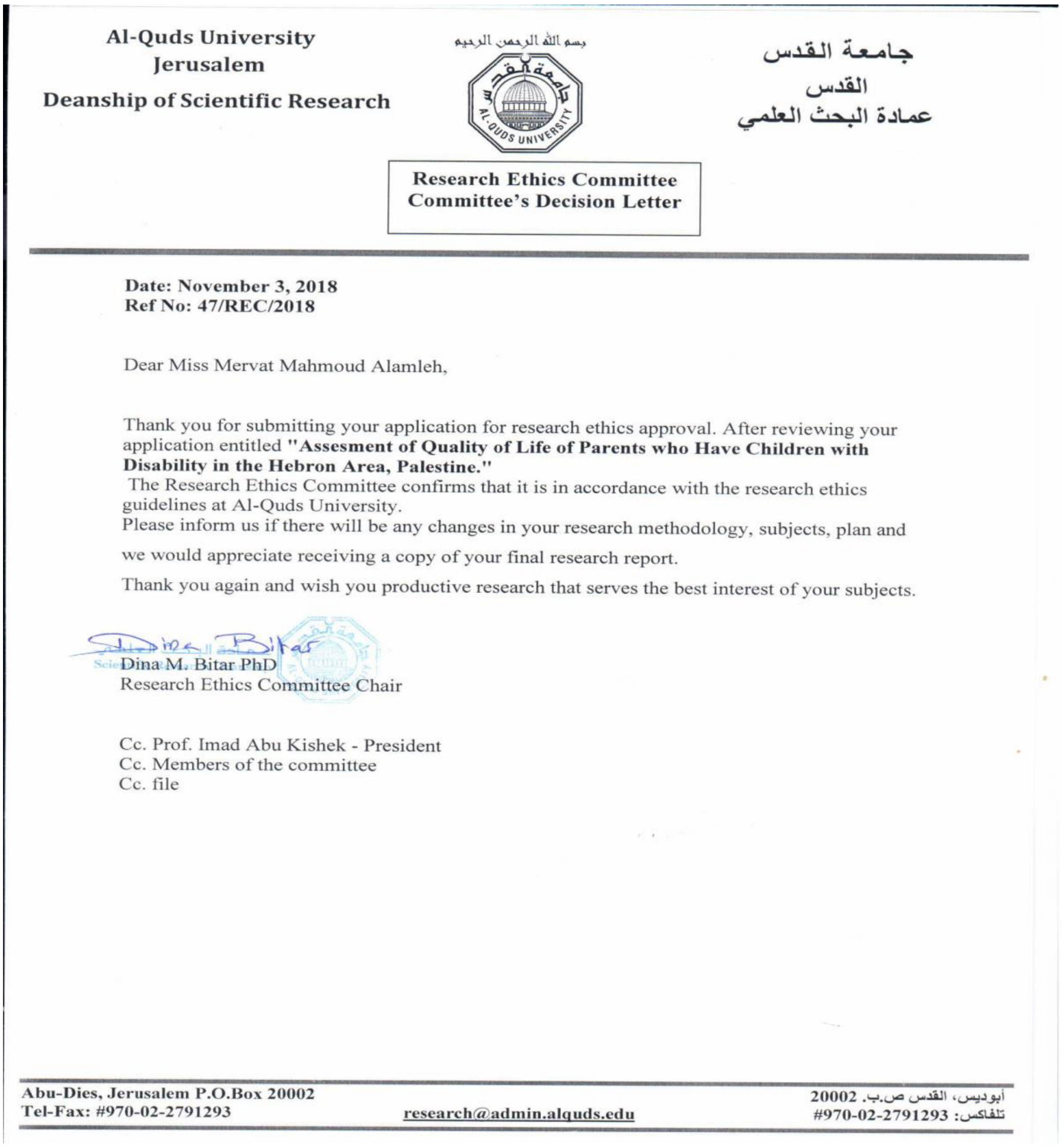
Annex (d)

			Male				Female			
			City	town	Village	camp	City	town	Village	camp
Job	not at all	Count	5	10	0	0	33	41	8	0
		%	13.2%	25.6%	0.0%	0.0%	86.8%	83.7%	72.7%	0.0%
	Worker	Count	20	16	1	1	2	4	0	0
		%	52.6%	41.0%	50.0%	100%	5.3%	8.2%	0.0%	0.0%
	Government employee	Count	9	8	0	0	3	3	2	0
		%	23.7%	20.5%	0.0%	0.0%	7.9%	6.1%	18.2%	0.0%
	private sector employee	Count	3	4	1	0	0	1	0	0
		%	7.9%	10.3%	50.0%	0.0%	0.0%	2.0%	0.0%	0.0%
	Farmer	Count	0	1	0	0	0	0	1	0
		%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%
	Seller	Count	1	0	0	0	0	0	0	0
		%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total	Count	38	39	2	1	38	49	11	0
		%	100.0%	100.0%	100.0%	100%	100.0%	100.0%	100.0%	0.0%
Education Level	None at all	Count	5	7	0	0	1	5	1	0
		%	13.2%	17.9%	0.0%	0.0%	2.6%	10.2%	9.1%	0.0%
	Elementary	Count	4	2	0	1	5	11	3	0
		%	10.5%	5.1%	0.0%	100%	13.2%	22.4%	27.3%	0.0%
	Preparatory	Count	8	8	0	0	11	18	4	0
		%	21.1%	20.5%	0.0%	0.0%	28.9%	36.7%	36.4%	0.0%
	High School	Count	12	9	1	0	14	8	2	0
		%	31.6%	23.1%	50.0%	0.0%	36.8%	16.3%	18.2%	0.0%
	College	Count	9	13	1	0	7	7	1	0
		%	23.7%	33.3%	50.0%	0.0%	18.4%	14.3%	9.1%	0.0%
	Total	Count	38	39	2	1	38	49	11	0
		%	100.0%	100.0%	100.0%	100%	100.0%	100.0%	100.0%	0.0%
Material status	Married	Count	36	36	2	1	31	45	9	0
		%	97.3%	92.3%	100.0%	100.0%	83.8%	91.8%	81.8%	0.0%
	Divorced	Count	1	0	0	0	1	0	0	0
		%	2.7%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%
	Widowed	Count	0	0	0	0	5	3	2	0
		%	0.0%	0.0%	0.0%	0.0%	13.5%	6.1%	18.2%	0.0%
	Other	Count	0	3	0	0	0	1	0	0
		%	0.0%	7.7%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%
	Total	Count	37	39	2	0	37	49	11	0
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
	not at all	Count	0	6	0		14	21	1	0
		%	0.0%	15.4%	0.0%	0	36.8%	42.9%	10.0%	0.0%
	less than 1000 NIS	Count	10	6	0	0.0%	9	14	0	0
		%	26.3%	15.4%	0.0%	0	23.7%	28.6%	0.0%	0.0%
	from 1000-2000 NIS	Count	19	9	1	0.0%	11	5	9	0
		%	50.0%	23.1%	50.0%	1	28.9%	10.2%	90.0%	0.0%
	from 2001-3000 NIS	Count	7	8	1	100.0%	4	7	0	0
		%	18.4%	20.5%	50.0%	0	10.5%	14.3%	0.0%	0.0%
	more than 3000 NIS	Count	2	10	0	0.0%	0	2	0	0
		%	5.3%	25.6%	0.0%	0	0.0%	4.1%	0.0%	0.0%
	Total	Count	38	39	2	100.0%	38	49	10	0
		%	100.0%	100.0%	100.0%	0	100.0%	100.0%	100.0%	0.0%

Annex (e)

			Male					Female				
			None at all	elementary	preparatory	High School	College	None at all	elementary	preparatory	High School	College
Job	not at all	Count	8	0	2	2	3	5	18	29	22	8
		%	66.7%	0.0%	12.5%	9.1%	13.0%	62.5%	94.7%	87.9%	91.7%	53.3%
	Worker	Count	3	6	10	16	3	2	0	3	0	1
		%	25.0%	85.7%	62.5%	72.7%	13.0%	25.0%	0.0%	9.1%	0.0%	6.7%
	Government employee	Count	1	1	3	1	11	0	1	1	1	5
		%	8.3%	14.3%	18.8%	4.5%	47.8%	0.0%	5.3%	3.0%	4.2%	33.3%
	private sector employee	Count	0	0	1	2	5	1	0	0	0	1
		%	0.0%	0.0%	6.2%	9.1%	21.7%	12.5%	0.0%	0.0%	0.0%	6.7%
	Farmer	Count	0	0	0	0	1	0	0	0	1	0
		%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	4.2%	0.0%
	Seller	Count	0	0	0	1	0	0	0	0	0	0
		%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total	Count	12	7	16	22	23	8	19	33	24	15
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	not at all	Count	4	0	1	1	0	4	7	12	11	2
		%	33.3%	0.0%	6.2%	4.5%	0.0%	57.1%	36.8%	36.4%	45.8%	13.3%
	less than 1000 NIS	Count	6	2	4	3	1	2	8	7	5	1
		%	50.0%	28.6%	25.0%	13.6%	4.3%	28.6%	42.1%	21.2%	20.8%	6.7%
	from 1000-2000 NIS	Count	2	4	5	11	8	0	4	11	6	4
		%	16.7%	57.1%	31.2%	50.0%	34.8%	0.0%	21.1%	33.3%	25.0%	26.7%
	from 2001-3000 NIS	Count	0	1	4	5	6	1	0	2	2	7
		%	0.0%	14.3%	25.0%	22.7%	26.1%	14.3%	0.0%	6.1%	8.3%	46.7%
	more than 3000 NIS	Count	0	0	2	2	8	0	0	1	0	1
		%	0.0%	0.0%	12.5%	9.1%	34.8%	0.0%	0.0%	3.0%	0.0%	6.7%
	Total	Count	12	7	16	22	23	7	19	33	24	15
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Annex (e)



Al-Quds University
Jerusalem
Deanship of Scientific Research

بسم الله الرحمن الرحيم

جامعة القدس
القدس
عمادة البحث العلمي

Research Ethics Committee
Committee's Decision Letter

Date: November 3, 2018
Ref No: 47/REC/2018

Dear Miss Mervat Mahmoud Alamleh,

Thank you for submitting your application for research ethics approval. After reviewing your application entitled **"Assesment of Quality of Life of Parents who Have Children with Disability in the Hebron Area, Palestine."**
The Research Ethics Committee confirms that it is in accordance with the research ethics guidelines at Al-Quds University.
Please inform us if there will be any changes in your research methodology, subjects, plan and we would appreciate receiving a copy of your final research report.
Thank you again and wish you productive research that serves the best interest of your subjects.

Dina M. Bitar PhD
Research Ethics Committee Chair

Cc. Prof. Imad Abu Kishek - President
Cc. Members of the committee
Cc. file

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