Deanship of Graduate Studies
Al-Quds University

Quality of life among Adults with hearing Impairment in Gaza Governorates

Fatma Ali Ramadan

M.P.H Theses

Jerusalem - Palestine

1442/2020

Quality of Life amongAdults with Hearing Impairment in Gaza Governorates

Prepared By
Fatma Ali Ramadan

Bachelor of English teaching and diploma in Nursing
Al- Azhar University

Supervisor: Dr. Ashraf El-Jedi
Associate Professor of Public Health

A Thesis Submitted in Partial Fulfillment of
Requirementsfor the Degree of Master of Public Health/
Track Health ManagementAl- Quds University

1442-2020

Al-Quds University

Deanship of Graduate Studies

School of Public Health

Thesis Approval

Quality of Life among adults with hearing impairmentsin the Gaza Governorates

Prepared by: Fatma Ali Ramadan
Registration Number: 21712014

Supervisor: Dr. Ashraf El-Jedi

Master thesis submitted and accepted. Date: / /
The names and signatures of examining committee:

1) Head of Committee: Dr. Ashraf El-Jedi Signature ………….

2) Internal Examiner: Dr. Khitam Abu HamadSignature ………..

3) External Examiner: Dr. KhamisElessiSignature ………….

Jerusalem – Palestine

1441-2020

Declaration

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

Signed: …………

Fatma Ali Ramadan

Date : …./…./….

Dedication

To the spirit of my dear mother

To my world to my father whom I owe my whole life and success the one who bring me strong

To my family members , My brothersEmran,Alaa , Mohammedand sisters Alia here in Gaza and Hanan , Samia , Salwa my soul mate in the 48 occupied land for their encouragements and believing in me

To my husband Ayman for his support and being by my side

To my friends for their support and encouragement

To my supervisors in the university

And to everyone who contributed to make this study a reality ;

Thank you

Fatma Ali Ramadan

Acknowledgement

First and foremost, praises and thanks to the God, the Almighty, for His showers of blessings throughout my research work to complete the research successfully.

I would like to express my deepest appreciation and sincere gratitude to myadvisors Dr. Bassam Abu Hamad, Dr. Yahia Abed, Dr. Khetam Abu Hamadand my research supervisor, Dr. Ashraf Al-Jedi forgivingmetheopportunitytodoresearchandproviding invaluableguidancethroughoutthisresearch.theirdynamism,vision,sincerityand motivation have deeply inspired me. They have taught me the methodology to carry out the research and to present the research works as clearly as possible. It was a great privilege and honor to work and study under their guidance. I am extremely grateful for what they have offered me. I would also like to thank them for their friendship,empathy,andgreatsenseofhumor.Iamextendingmyheartfeltthanks for their acceptance and patience during the discussion I had on research work and thesispreparation.I would like to thank all academic and administrative staff, my Special thanks goes to Mrs. Suzan Abed, Mr. GhassanSedawyof the School of Public Health, Al-Quds University for their guidance, support and the keen interest shown to complete this thesis successfully.

I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future. I am very much thankful tomywork directorDr. WaelMeckyforhisunderstanding,prayersandcontinuing support to complete this research work. Also I express my thanks to my sisters,

brothers fortheirsupportandvaluableprayers.I would like to say thanks to my friends and research colleagues, Mr. Hassan Nassar, MahaGhandor, Dr. Jan Calder, Miss Dalal Al-Taji and all the staff at university college of ability development at PRCS and Dr. DerdahAlshaer, for their constant encouragement. I express my special thanks to Mr. Rafeeq Hamadan, and all the team at Mustafa Alrafei for their genuine support throughout this research work.

I am extending my thanks to Mr. BahaaSarhan the director of disability services and inclusion center of Islamic university, Miss. Israa Ghazal sign language translator and all the students at the disability services and inclusion center of Islamic university for their cooperation during my research work.

Finally, my thanks go to all the people who have supported me to complete the research work directly or indirectly.

Fatma Ramadan

Abstract

Background: Hearing impairment is one of the chronic health condition and one of disabilities connected strongly with cognition, self-image, exchanging information and affect Quality of life thus understanding the impact of hearing loss on quality of life is of great importance. Quality of Life has emerged as an important parameter for assessing the challenges among adult with hearing impairment in order to contribute in improvement of their quality of life.

Objective: Is to assess QOL among adults with hearing impairment in Gaza Strip.

Design and Setting: Descriptive, analytical, cross-sectional study has been performed in 215 adults with hearing impairment aged 19 years and above on follow-up through schools, community organizationsare providing services for individuals with hearingdisability**.** The study was conducted at 6-selected areas which provide services and deal with people with hearing impairment which are distributed at the governorates of the GS; Mostafa Al-RafeaiaSecondery school (Gaza City governorate), Deer Albalah ; Al-Dameerassosiation (Mid Zone governorate), Palestinian Red CroscentSociety ;Alamal school and Faculty of Capacity Development (Khan Yunis governorate), Disabled Rehabilitation and Social Training Association (Alamal school at Rafah, Alhanan school at Deer al-Balah, Besan school at Nusirat camp, Jabalia school at Jabalia camp) and The Center for Disability Services at the Islamic University. After recording the participants' socioeconomics, demographics and health characteristics, they filled out the WHOQOL-BREF questionnaire and the relationship between various variables and the QOL score was evaluated.

Results: The resultsshowed that the mean score of study participants' QOL was (64.1%). It showed that the psychological dimension had the first rank with the percentage (67.8%), and the environmental field ranked the last with a weighted mean (60%). The results of the study showed that there are statistically significant differences ($\alpha \leq 0.05$) between the total quality of life with the variables of the family's level of understanding of the hearing impaired and interacting with them, the variable of the presence of another disability associated with hearing impairment, as well as the variable of using hearing aids such as headphones while it showed that there were no statistically significant differences ($\alpha \geq 0.05$) between participants on the total quality of life with the other variables such as sex, age,the level of education, personal status (single, married), the average household income, the extent of commitment to health follow-up, and suffering from any health problem. Moreover, the results of the study showed that hearing difficulties appear in every generation, but their prevalence increases among the elderly. Hearing-impaired persons suffer from emotional, behavioral and adaptive problems with others, which leads to symptoms such as anxiety, depression and confusion, and hearing loss and ear problems such as tinnitus have a negative impact on mental health.

Conclusion : The findings demonstrated that participants with hearing impairments had a medium level of perception about their QOL. This study identified common problems and challenges encountered by adults with hearing impairments which now are not assessed regularly in Gaza society. The study has proved a wide effects on self-confidants, social

roles and ability to function independently in every field of life , it affect the psychological side in the first place in addition to mental ,and social wellbeing.

Table of contents

Declaration..

Dedication... i

Acknowledgement ii

Abstract... iv

Table of contents vii

List of Tables x

Abbreviations: xi

List of Annexes.. xii

Chapter One Introduction 1

1.1 Background.. 1

1.2 Research problem 2

1.3 Justification of study.. 3

1.4 Aim of study:.. 5

1.5 Research objectives 5

1.6 Research questions 6

1.7 Context of study 6

1.7.1 Geographic and Demographic contexts 6

1.7.2 Main health indicators 10

1.8 Operational definitions 10

1.8.1 Quality of Life 10

1.8.2 An adult: 11

1.8.3 Disabling hearing loss:.. 11

1.8.4 Hearing disability:.. 11

1.8.5 Hearing impairments classification: 11

1.8.6 Challenges.. 12

Chapter Two Literature review 12

2.1 Conceptual framework 12

2.1.1 Dependent variable of the study: 13

2.1.2 Independent variables of the study: 14

2.1.3 QOL dimension: 14
2.2 Literature review 15
2.2.1 Hearing impairment: 15
2.3 Epidemiology 16
2.4 Classification of hearing impairment: 17
2.5 Causes of hearing impairment: 17
2.6 Consequences of hearing impairment: 19
2.6.1 Functional impact: 19
2.6.2 Social and emotional impact 19
2.6.3 Economic impact 19
2.7 Risk factors for hearing impairments: 20
2.8 Diagnosis and detection: 22
2.9 Management of Hearing impairment 22
2.9.1 Permanent hearing loss needs: 23
2.9.2 Follow-up appointments 23
2.9.3 Sign language and lip reading lip 23
2.10 Quality of Life 24
2.10.1 Historical evolution of the term QOL 24
2.10.2 Definitions of QOL 25
2.10.3 Definitions of Health Related Quality of Life (HRQOL) 25
2.10.4 Measuring QOL 25
2.11 Studies Conducted in Palestine on QOL 28
2.12 International Studies Conducted on QOL 30
2.13 Characteristics of the hearing impaired: 35
2.13.1 Psychosocial characteristics: 35
2.13.2 Mental characteristics: 35
Chapter three Methodology 36
3.1 Study design 36
3.2 Study settings 36
3.3 Study period 37
3.4 Study population 37
3.5 Study sample 37
3.5.1 For quantitative data: 37
3.5.2 For qualitative data: 38

3.6 Eligibility criteria 38
3.6.1 Inclusion criteria: 38
3.6.2 Exclusion criteria: 38
3.7 Study instruments: 38
3.8 Pilot study 39
3.9 Validity 40
3.10 Reliability 40
3.11 Data collection 41
3.12 Data entry and analysis 41
3.13 Ethical Considerations 41
3.14 Limitations of the study 42
3.15 Response rate 42
Chapter four Results and discussion 43
4.1 Descriptive analyses 43
4.1.1 Characteristics of the study participants (n=210) 43
4.1.2 Demographic variables: 44
4.2 Global domains 49
4.2.1 Perception about QOL (WHOQOL-Brief- 26) according to How adults with hearing impairment would rate their Quality of Life 49
4.2.2 Perception about QOL (WHOQOL-Brief- 26) according to Satisfaction with their health 50
4.2.3 QOL domains analyses (physical, psychological, social and environmental) Distribution of Reponses in reference to physical related items (physical domain) 50
4.3 Inferential Analysis 59
4.3.1 QOL and gender 61
4.4 Qualitative analyses 77
Chapter Five Conclusion and Recommendations 81
5.1 Conclusion 81
5.2 Recommendations 84
References 87
Annexes 91

List of Tables

Table (3.10) Cronbach Alpha used for the reliability of the tool.. 40
Table (4.1) Distribution of the frequency of the demographic and socio-economic and health variables of the study participants, (n=210). 43
Table (4.2) Distribution of the frequency of the health variables of the study participants, (n=210). 44
Table (4.3) Perception about QOL (WHOQOL-Brief- 26) according to How adults with hearing impairment would rate their Quality of Life 49
Table (4.4) Perception about QOL (WHOQOL-Brief- 26) according to Satisfaction with their health 50
Table (4.5) Distribution of Reponses in reference to physical related items (physical domain)... 51
Table (4.6) Distribution of Reponses in reference to psychological related items (Psychological domain).. 53
Table (4.7) Distribution of Reponses in reference to Social related items (Social domain) 55
Table (4.8) Distribution of Reponses in reference to environmental related items (environmental domain) 58
Table (4.9) Differences in perceptions of the QOL about health-related variables and demographic and socioeconomic characteristic's variables 59
Table (4.10) Differences in perception about QOL (WHOQOL-Brief- 26) according to gender 62
Table (4.11) Differences in perception about QOL (WHOQOL-Brief- 26) according to Age 63
Table (4.13) Differences in perception about QOL (WHOQOL-Brief- 26) according to marital status 65
Table (4.14) Differences in perception about QOL (WHOQOL-Brief- 26) according to income 66
Table (4.16) The source of the differences the total quality of life due to the level of family understanding and interaction 69
Table (4.17) Differences in perception about QOL (WHOQOL-Brief- 26) according to hereditary... 71
Table (4.18) Differences in perception about QOL (WHOQOL-Brief- 26) according to other disability... 72
Table (4.19) Differences in perception about QOL (WHOQOL-Brief- 26) according to using hearing aids... 73
Table (4.20) Result: t-test for the quality of life Attributed to the commit to health follow-up... 75
Table (4.21) Differences in perception about QOL (WHOQOL-Brief- 26) according to suffering from other health problems. 76

Abbreviations

ASDC	Atfaluna Society for Deaf Children
ALD	Assistive Listening Device
ARHC	Age Related Hearing Loss
GBD	Global Burden of Disease
GS	Gaza Strip
HI	Hearing Impairment
HL	Hearing Loss
HRQOL	Health Related Quality Of Life
MOE	Ministry of Education
MOH	Ministry of Health
NGOs	Non-Governmental Organizations
NIDCD	National Institute On Deafness And Other Communication Disorder
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
PWHL	People With Hearing Loss
QOL	Quality of life
SPSS	Statistical Package of Social Science
UNRWA	The United Nations Relief and Works Agency for Refugees of Palestine in the Near East
UNSCO	United Nations Special Coordinator for the Middle East Peace Process
WB	West Bank
WHO	World Health Organization
YLD	Years Lived with a Disability

List of Annexes

Annexes.1 Map of Palestine

Annexes.2 Study period

Annexes.3 Sample of the study

Annexes.4 Brief -26 questionnaire English version

Annexes.5 Brief -26 questionnaire Arabic version

Annexes.6 Helsinki committee approval

Annexes.7 Academic approval

Chapter One

Introduction

1.1 Background

The ear in the most efficient and. At the same time , the most sensitive sensory organ of human beings and hearing impairment (HI), or hearing loss (HL), occurs when losing part or all of the ability to hear. Other terms that are used to refer to HI are deafness and hard of hearing, According to the World Health Organization (WHO), HI one of the most common disabilities worldwide (Mukara, B.etal, 2017). HI is one of the disabilities connected strongly with cognition, self-image, exchange information and affect Quality of life thus understanding the impact of hearing loss on quality of life is of great importance. WHO released an estimation on the magnitude of disabling HL which are based on 42 population-based studies, that there are 360 million persons in the world with disabling hearing loss (5.3% of the world's population) ,328 million (91%)of these are adults (183 million males, 145 million females),32 (9%) millions of these are children (WHO, 2012).

Disability prevalence rates in Palestine is 2.03% (MENA, 2017) The percentage of hearing disability is 14.2 % amongst other disabilities, which means that the estimated number of persons with hearing loss - mild to profound - is between 17,000 and 42,000 (PCBS), In Palestine through the scholastic year 2015/2016, the number of children with HL in the public schools is 741 mild HL and 77 moderate to profound HL Ministry of education (MOE files) , The number of children with hearing disability who attending the special education school for individuals with hearing disability is about 1800 students at the age 3-18 years, Which means that the total number of students with hearing disability and hard of hearing who have access to education is 2618.

Epidemiological studies on students with disabilities in government schools revealed that

total hearing impairment in Palestine 157 person; 77 in the West Bank (WB), 80 in the Gaza Strip (GS) and partial hearing impairment 1143 person, 741 in the WB and 402 in the GS (PCBS, 2017).

The interest of the researchers concerning the challenges and quality of life assessment in disabilities increase constantly, QOL is an important indicator of health and wellbeing, its domains are physical, social, emotional and environmental which have a great impact on the level of independence, social relations, environment and spiritual aspects (WHO, 2019).

Palestinian Red Crescent society (PRCS) run 4 schools for the individuals with hearing disabilityin (Ramallah, Nablus, BaniNaim, khanyounis (300 studentswith hearingdisability), The schools provide education and other supported services to the children at the age of school and preschool (3-18 years) and Implement the Ministry of education MOE curriculum, Adopt the total communication program, Work closely with the families as partners in the program as well as the Coordination with the MOE, schools and other organizations in the field of deaf education.

Atfaluna society is a Palestinian non-governmental organizations (NGOs) provide educational and allied services for individuals with hearing disability, its school provide educational services for 300 studentswith hearing disability mainly primary and preparatory classes.

Furthermore assessment of the challenges and QOL among adults with hearing impairment has not been previously studied in Gaza, most studieswere concerned with infant hearing impairment, the recommendation of this study will be presented to the decision makers .

1.2 Research problem

HI is one of the most prevalent chronic health condition which has a significant association with disability, and has a broad effect on people`s ability to function independently on their

lives, as indicated by loss of personal independence, difficult communication, depression, transportation challenges, difficulties maintaining employment and social relationsand have a significant influence on an individual'sability to enter the workforce .

There is an information gap in the needs of adults with HI and lack of qualitative and quantitative studies related to them, despite there is a focus on infants` hearing impairment.

The ability to hear is such an integral part of our lives that most people take it for granted. The importance of reflecting the issue of hearing disability in GS and its impact on the individuals with hearing disability as well as the whole community because the consequences of HI are still underestimated even if the recent years witnesses an increasing attention to such disability but GS still needs more and continuous procedures in developing the provided services for those with HI as attempt for better QOL.

This study will assess the challenges and quality of life among adult with HI in order to contribute in improvement of their quality of life, the researcher will study the quality of life among adults with HI for first time in the GS.

1.3 Justification of study

HI has a high burden of disease and disability which affect all ages and both sexes and it has a high impact on the individual social and psychological function that could lead to Social isolation and stigmatization, depression, anxiety and negative self-image , Difficulties in obtaining, performing and keeping an occupation and increase the risk of health outcomes.

Challenges assessments is an important indicator to understand the difficulties and constraints facing adult with HI that threaten their communication and well-being and then contribute positively or negatively on their QOL.

Adult-onset hearing loss ranks 15th amongst the leading causes of the Global Burden of Disease (GBD), and 2nd in the leading causes of Years Lived with a Disability (YLD), (WHO, 2002).

People with HI need a continuous attention for more services that contribute in remerging them with the community as an independent and productive people.

In 2018, a research study was conducted in the Atfaluna society in the GS to investigate the risk factors of HI among infants has Revealed that exposure to loud noise develop the risk of children HI, the study also reveals that prematurity, low birth weight and admission to Neonatal Intensive Care Units were strongly associated with the development of HI, Children born with congenital anomalies affecting mainly head and face, recurrent otitis media, the use of ototoxic medications. many other factors also affect HI such as mother's unemployment, receiving social assistance, positive family history, consanguinity, inadequate iron supplementation during pregnancy, failure to use folic acid early in pregnancy are all risk factors for developing hearing problems (Randa .R 2018).

This study will spotlight on challenges and QOL among adults with HI in the GS in order to evaluate the QOL domains and investigate the effectiveness and responsiveness of the provided educational, cultural remerging programs on improving adults HI life.

The highest prevalence among disabilities is Mobility at 49% out of disabled persons in the Palestinian Territory, 49.5% in the West Bank compared to 47.2% in Gaza Strip. The disability of hearing impairment is the third prevalence among disabilities 24.7%; 23.6% in WB and 26.7% in GS, after Mobility disability at 49% out of disabled persons in the Palestinian Territory; 49.5% in WB compared to 47.2% in GS. Noting that each person may have more than one disability.

46.5% of total persons with Hearing disability are in need for hearing aid that is without T-Switch compared to 44.4% require hearing aid with T-Switch. Also, 16.1% require Amplifier compared to 14.3% require Cochlear implants and 12.5% require Visual or vibrating alerts or alarms.(PCBS , Disability Survey, 2011)

Currently, the demand for disabilities services in the GS is high as a result of limited schools, wars, high percentage of disabilities, In 2011, the percentage of people with disabilities was 2.4% of the total population in the GS. Generally, the prevalence of disability increases with age as 32% of disabilities is among elderly people aged 60 years and over (Palestinian Central Bureau of Statistics (PCBS), 2015).

1.4 Aim of study

The overall aim of this study is to assess the challenges and quality of life among adults with hearing impairment in Gaza Governorate to improve overall wellbeing and Quality of life by motivating their participation in the communityand raising their independency and productivity.

1.5 Research objectives

1. To assess the level of quality of life among adults with hearing impairment in GS.
2. To assess the level of four domains of QOL of Adults with hearing impairment (Environmental, Physical, social and emotional domains).
3. To examine the relationship between socio-demographic, medical history and level of QOL among adults with hearing impairment.
4. To identify the challenges facing adults with HI in GS .
5. To propose recommendation to the society to increase intense and continuous care to adult with hearing impairment.

1.6 Research questions

1. Does the adult with hearing impairment in the GS enjoying QOL?
2. Are adults with hearing impairment satisfy their health?
3. How do they view their QOL?
4. What is the impact of hearing impairment on QOL?
5. What are the challenges facing adults with hearing impairment?
6. What are the psychosocial characteristics associated with QOL among adults with hearing impairment?
7. What are relationships between health profile and QOL in adults with hearing impairment?
8. What are the facilities that could help to reduce the challenges facing adults with hearing impairment?

1.7 Context of study

1.7.1 Geographic and Demographic contexts:

Palestine lies on the western edge of the Asian continent and the eastern extremity of the Mediterranean Sea. Historic Palestine is bound to the north by Lebanon and Syria, to the west by the Mediterranean Sea, to the south by the Gulf of Aqaba and the Egyptian Sinai Peninsula, and to the east by Jordan (Annex 1). The territory of present-day Palestine covers is composed of two physically separated land masses: the West Bank and the Gaza StripSea (PASSIA, 2019).

The surface area of Palestine is 26,323 Km2. The Palestinian Territories comprise two areas separated geographically: the West Bank (WB) and Gaza Strip (GS) with total surface area of 6,020 Km2 (PASSIA, 2019). GS is a narrow piece of land lying on the coast of the Mediterranean Sea. Its position as a road from Africa to Asia made it a target for occupiers and conquerors over the centuries. The last in the recent history of these was

"Israel", which occupied GS from Egyptians in 1967. GS is a very crowded place with an area of 365 Km2 and constitutes 6.1% of the total land of Palestine. GS compromises the following main five governorates: North Gaza, Gaza, Deir Al-Balah, Khan Yunis, and Rafah(PASSIA, 2019).

Based on estimates prepared by PCBS There are about 13 million Palestinians in the world, of whom about 5 million in the State of Palestine in mid 2019; 2.53 million males and 2.45 million females. The estimated population of the West Bank was 2.99 million of which 1.53 million males and 1.46 million females. While the estimated population of Gaza Strip was 1.99 million of which 1.01 million males and 980 thousand females.

The population density of Palestine is generally high at 826 persons/km2, particularly in Gaza Strip, where it is 5,453 persons/km2 compared to a lower population density in the West Bank of 528 persons/km2 in mid-2019 (PRCS 2019) More than one third of Palestinian population are in the GS, which is one of the most crowded places with population as more than two million live in the GS, its population density is about 5154 individual per km^2, with population growth of 3.37%. Percentage of refugees in the GS is 66.7% of population (PCBS, 2016).

Disability percentages in the GS were higher than those in the WB for both sexes; The number of Persons with Disability was 27 thousand with (2.9%) of total for males and 21 thousand with (2.3%) of total for females in the GS, compared to 24 thousand with (1.9%) of total for males and 20 thousand with (1.6%) of total females in the WB (PCBS, 2019).

In 2017, Poverty rate for Palestine was 29.2, 53% of individuals in the GS found to be poor, the poverty rate for the GS was more than four times higher than of the WB rate of 13.9 percent. 33.7% of individuals living in the GS were suffering from deep poverty compared with 5.8% of the WB (PCBS,2017)

After years of blockade on the GS and frequent wars by Israel, the socioeconomic status in the GS has been un precedent declined. Therefore, by the end of 2015, poverty rate in the GS was 39%, and over 80% of the population became aid dependent (UNRWA, 2015). Furthermore, in the third quarter of 2016 in the GS, the unemployment rate was the highest worldwide, it was 43.2%, this percentage for females was 68.6%, and it was 35.4% for males (United Nations Special Coordinator for the Middle East Peace Process (UNSCO, 2017).

In 2016, labor force participation rate (for persons 15 years and above) in Palestine was 45.8; 71.6 for males and 19.3 for females, while unemployment rate (for persons 15 years and above) was 26.9 in Palestine; 22.2 for males (15.5 in the WB and 34.4 in the GS) and 44.7 for females (29.8 in the WB and 65.2 in the GS) (PCBS, 2019).

Places that provide services to hearing impaired in Gaza Strip:

PRCS run 4 schools for individuals with hearing disability (Ramallah, Nablus, BaniNaim, khanyounis (300 students) , The schools provide education and other supported services to the children at the age of school and preschool(3-18 years) and Implement the MOE curriculum , Adopt the total communication program , Work closely with the families as partners in the program as well as the Coordination with the MOE, schools and other organizations in the field of deaf education .

Atfaluna society is a Palestinian non-governmental organization (NGO) provide educational and allied services for children and adults with hearing disability, its school provide educational services for 300 deaf students; mainly primary and preparatory classes.

Disabled Rehabilitation and Social Training Association run 3 schools (Alhanan school at Deer al-Balah , Besan school at Nusirat camp , Jabalia school at jabalia camp) which provides educational services till the preparatory stage and then they transport to the only

secondary school Mostafa Al-Rafi secondary school for the Deaf in the GS,Mustafa Al-Rafi Secondary School for the Deaf providing deaf students with the opportunity to pursue their education, join the university, and thus integrate into society.

This is the only school for the Deaf in Palestine, founded nine years ago, funded by the Arab Doctors' Union, and is only for Deaf students.

According to the director of the school's male branch, RafiqHamdan, the number of pupils in the school is between 50 and 70 students studying the MOE curriculum. The transfer of students from all parts of the Gaza Strip to the school is insured by buses provided by the MOE and Higher Education. In the educational process in preparation for their integration into society.Since the establishment of the school, the graduated students are pursuing their university education at the Islamic University in Gaza, in the presence of a program for deaf in cooperation with the MOE. Through them, they can study graphic design and maintenance of electronic devices as attempts to help them continue and live in dignity.

Al-Dameer society for persons with hearing disabilities is an NGO at Deer Al-Ballah providing sign language courses, communication courses for adults with hearing impairment and their peers without disabilities to enrich the emerging with the community. The Dameer Association for People with Hearing Disabilities also provide many Innovative initiatives courses for deaf and young people that could help them in life and help them to earn their living such as health awareness courses and …etc.

The Center for Disability Services at the Islamic University was established in 2000 to meet the needs of students with disabilities and help them integrate into university life without problems. It is considered the first center at the level of Palestine universities that volunteers technology services to facilitate the university life for students with disabilities

1.7.2 Main health indicators:

According to PCBS (2016), the crude birth rate in the GS was 35.8 births per 1000 population, while the crude death rate was 3.3 deaths for every 1000 of population. In addition, growth rate was 3.3%, and poverty rate of individuals was 38.3% (PCBS, 2016).

In 2014, infant mortality rate in Palestine was 18.2 per 1000 live births; 19.6 in the GS, and under-five mortality rate in Palestine was 21.7 per 1000 live births; 23.7 in the GS (PCBS, 2015).

1.8 Operational definitions

1.8.1 Quality of Life:

WHO identified QOL as it is a multidimensional concept and defines it as "individuals' perceptions of their position in life in the context of the culture and value system in which they live and in relation to their goals, standards, and concerns" (WHO, 1993).The definition includes six broad domains: physical health, psychological state, level of independence, social relationships, environmental features, and spiritual concerns. McDowell & Newell (1987) suggest that quality of life "relates both to the adequacy of material circumstances and to people's feelings about these circumstances". Coulter (1990) defines quality of life as "a sense of personal satisfaction with life that is more than just pleasure or happiness and yet something less than meaning or fulfillment". Raphael et al., (1996) defined quality of life as: the degree to which a person enjoys the important possibilities of his/her life.

Quality of Life (QOL) is defined as subjective well-being or overall assessment of the goodness of life when both subjective well-being and objective characteristics such as able bodied, access to social activities, and standard of living are taken into account (Wasserman, Bickenbach and Wachbroit, 2005).

1.8.2 An adult:

For research study, the researcher defines adult with hearing impairment who is 18 years old and above, it is the age at which one becomes a legal adult and gains full legal rights. It is also the age at which a person is liable for their own actions, and has the cognitive ability to participate in the study.

1.8.3 Disabling hearing loss:

WHO identified it by hearing loss greater than 40 dB in the better hearing ear in adults and greater than 30 dB in the better hearing ear in children (0 to 14 years) (WHO, 2019)

1.8.4 Hearing disability:

persons who have some hearing difficulties, which contribute to the reduction of their ability to perform any part and aspect of their day, such as difficulty hearing someone talking in a busy place and the noise, or cannot hear someone speak with him directly and speak normally (without screaming, or high volume), and determine who is not able to hear with one ear or both (PCBS, 2011)

1.8.5 Hearing impairments classification:

Hearing impairments are classified in terms of the severity and type of hearing impairment. The severity of the hearing impairment is categorized based on the minimum sound that can be heard with your better ear. The higher the decibel (dB), the louder the sound.

With mild hearing impairment, the minimum sound that can be heard is between 25 and 40 dB. People at this level cannot hear soft noises and may have trouble following conversations in noisy settings.

With moderate hearing impairment, the minimum sound that can be heard is between 40 and 70 dB. People at this level cannot hear soft or moderately loud noises and may have trouble hearing unless they use a hearing aid.

With severe hearing impairment, the minimum sound that can be heard is between 70 and 95 dB. People at this level are unable to hear most noises and may rely on lip-reading and/or sign language, even with the use of a hearing aid.

With profound hearing impairment, the minimum sound heard is 95 dB and over. People at this level may only hear very loud noises and rely solely on lip-reading and/or sign language.Hearing aids are not effective.

1.8.6 Challenges:

A researcher defines the challenges as "any obstacles and constrains facing adults with hearing impairment that could raise difficulties and harden their communication and participation as an independent and productive individuals in the society".

Chapter Two

Literature review

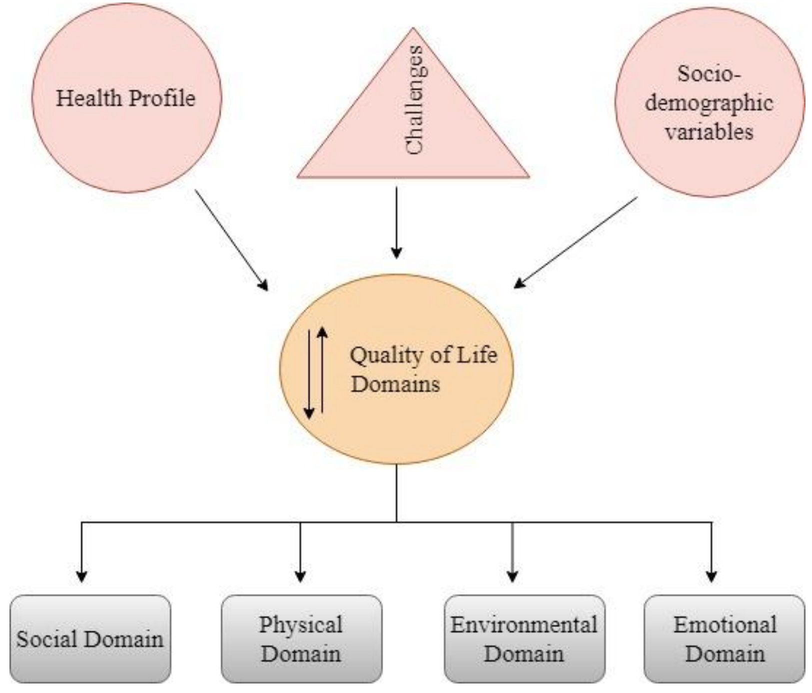
2.1 Conceptual framework

Conceptual framework is structured by the researcher; it is a representation of linked concepts that is designed within a map to show what is important regarding the issue of

interest. Therefore, Conceptual frameworks could manage thinking and observation, thus it provides comprehensive understanding of specific issue.

According to the framework model, the researcher demonstrates the dimensions that affect the Hearing impairment adults' performance. Each dimension has domains and each domain has different variables that interact in different degrees and affect the quality of life among adults with hearing impairment.

The following Figure (2.1) demonstrates the conceptual framework which was developed by the researcher.



2.1.1 Dependent variable of the study:

The variable of interest in this study as can be noticed is Quality of life among adults with hearing impairment , so when we talk about QOL it's a must to evoke its components that adopt be the researcher which is psychosocial factors, environmental factors, emotional factors, and physical factors .in the study the researcher will demonstrate what effect dose the independents variables create on QOL represented by its components

2.1.2 Independent variables of the study:

As shown in Figure 2.1 the researcher suppose that demographic characteristic may have an impact on the final result of life quality among adults with hearing impairments

2.1.2.1 PersonalVariable:

Includes factors such as gender, age, educational level, house environment and marital status; which they affect QOL directly and Socioeconomic include income and family interaction.

2.1.2.2 Health status of adults with hearing impairment:

Include causes of hearing impairment (inherited or not), uses of hearing aids, other associated disabilities, commitment to health status follow up and health problems.

2.1.3 QOL dimension:

WHO (1996) emphasized the importance of including both the objective conditions and the subjective experiences, which represent the quality of life where the inter-relationships between them are studied. For the purpose of this study, QOL was assessed using World Health Organization Quality of Life Questionnaire- short version (WHOQOL-BREF) .The WHOQOL-BREF is an abbreviated version of the WHOQOL-100 quality of life assessment. It produces scores for four domains (physical health, psychological, social relationships and environment) related to quality of life. It also contains two other questions are examined separately: question 1 asks about an individual's overall perception of quality of life and question 2 asks about an individual's overall perception of their health. The four domain scores denote an individual's perception of quality of life in each particular domain. Domain scores are scaled in a positive direction (i.e. higher scores denote higher quality of life). The mean score of items within each domain is used to

calculate the domain score. Mean scores are then multiplied by 4 in order to make domain scores comparable with the scores used in the WHOQOL-100 (WHO, 1996). **Annex 4**

2.1.3.1 Physical health domain:

Facets incorporated within physical domain,activities of daily living depend on medical substances and medical aids; energy and fatigue, mobility, pain, discomfort, sleep and work capacity.

2.1.3.2 Psychological domain:

Includes Body image and appearance, Negative feelings, Positive feelings, Self-esteem value, Spirituality, Religion, Personal beliefs, Thinking, learning, memory and concentration.

2.1.3.3 Social domain:

Personal relationships, Social support and Sexual activity.

2.1.3.4 Environment domain:

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 and Physical environment (pollution / noise / traffic / climate) Transport.

2.2 Literature Review

2.2.1 Hearing impairment:

Hearing impairment is a global and national chronic health condition, According to the World Health Organization, 360 million people worldwide have disabling hearing loss, Hearing impairment in adults cause verbal communication disorders that influence psychical, emotional and social functioning. Nowadays, there is a noticeable world

tendency towards improving hard of hearing person's quality of life, Severity of hearing loss was significantly correlated with hearing handicap. More often, participants revealed social and situational than emotional hearing handicap. Only 12% of all participants habitually used hearing aids, and they observed a significantly better quality of life scores. (Tatović, et.al, 2011)

2.3 Epidemiology

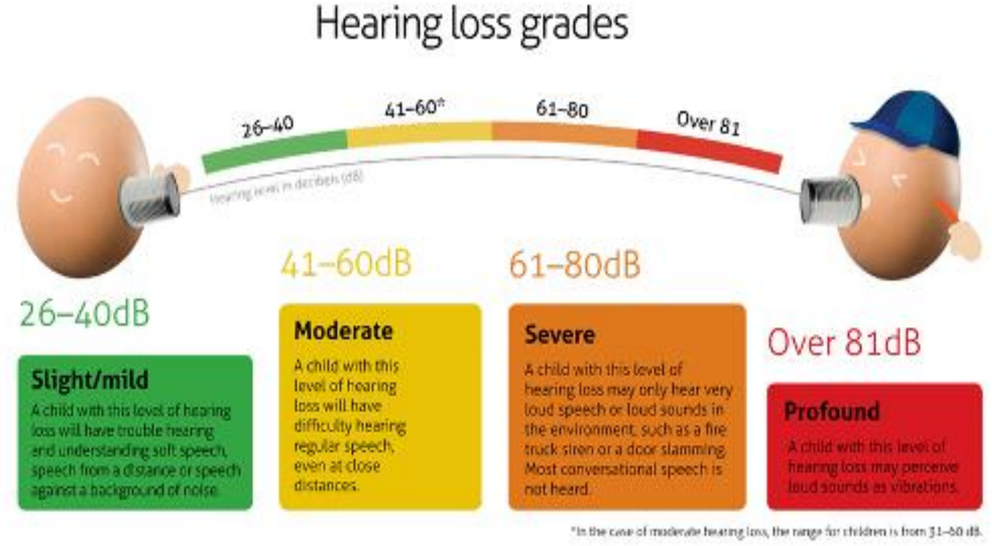
Over 5% of the world's population – or 466 million people – has disabling hearing loss (432 million adults and 34 million children). It is estimated that by 2050 over 900 million people – or one in every ten people – will have disabling hearing loss (WHO,2019)

The average incidence of neonatal hearing loss in the United States is 1.1 per 1000 infants, with variation among states (0.22 to 3.61 per 1000). Childhood and adolescent prevalence rates demonstrate variability. The prevalence of mild hearing impairment or worse (>20 dB) is 3.1 percent based on the average of comparable audiometric screening studies; self-reporting prevalence is 1.9 percent. Hispanic Americans demonstrate a higher prevalence of hearing impairment than other children. Low-income households demonstrate a higher prevalence of hearing loss compared to households with higher income levels. Genetic causes were attributed to 23 percent across studies (Mehra, etal. 2009)

Disability among the older age group is widespread, the development indicators for younger cohorts is not very encouraging. Around 37.6 percent of all disabled individuals aged 15 years and older in the Palestinian Territory have never been enrolled at a school: 35.5 percent in the West Bank and 42.2 percent in the Gaza Strip. In addition, 33.8 percent of all disabled individuals had dropped out of school: 37.0 percent in the West Bank and 27.1 percent in the Gaza Strip. Illiteracy rate of all disabled individuals was 53.1 percent: 51.5 percent in the West Bank and 56.3 percent in the Gaza Strip

2.4 Classification of hearing impairment

Hearing loss happens for different reasons. Many people lose their hearing slowly as they age. This condition is known as presbycusis , the reasonesbehinde affecting some people more than others are not decoverd , but it seems to run in families. Another reason for hearing loss with aging may be years of exposure to loud noise. This condition is known as noise-induced hearing loss. Many construction workers, farmers, musicians, airport workers, yard and tree care workers, and people in the armed forces have hearing problems even in their younger and middle years because of too much exposure to loud noise (The National Institute on Deafness and Other Communication Disorders,2018)



2.5 Causes of hearing impairment

The causes of hearing loss and deafness can be congenital or acquired.

Congenital causes may lead to hearing loss being present at or acquired soon after birth. Hearing loss can be caused by hereditary and non-hereditary genetic factors or by certain complications during pregnancy and childbirth, including maternal rubella, syphilis or certain other infections during pregnancy; low birth weight; birth asphyxia (a lack of oxygen at the time of birth); inappropriate use of particular drugs during pregnancy, such

as aminoglycosides, cytotoxic drugs, antimalarial drugs, and diuretics; severe jaundice in the neonatal period, which can damage the hearing nerve in a newborn infant.

Acquired causes also may lead to hearing loss at any age, such as infectious diseases including measles, meningitis and mumps; chronic ear infections; collection of fluid in the ear (otitis media); use of certain medicines, such as those used in the treatment of neonatal infections, malaria, drug-resistant tuberculosis, and cancers; injury to the head or ear; excessive noise, including occupational noise such as that from machinery and explosions; recreational exposure to loud sounds such as that from use of personal audio devices at high volumes and for prolonged periods of time and regular attendance at concerts, nightclubs, bars and sporting events; ageing, in particular due to degeneration of sensory cells and wax or foreign bodies blocking the ear canal.

Among children, chronic otitis media is a common cause of hearing loss (WHO,2019) These data provide strong evidence that environmental, lifestyle, or other modifiable factors contribute to the etiology of hearing impairment and add support to the idea that hearing impairment in adults may be prevented or delayed(Zhan et al.,2011)

A statistically significant association between aging related hearing loss (ARHL) and education was detected. People with no education showed a higher association with the condition than people with a higher education ($p < 0.001$). Explanations could be many, including individual jobs. A strong correlation ($\varphi > 0.45$) between occupation and level of education was also found. In addition, findings provide a better knowledge of environment/lifestyle factors related to ARHL and might help in defining new preventive strategies for aging people (Vuckovic et al., 2014).

2.6 Consequences of hearing impairment

2.6.1 Functional impact:

One of the main impacts of hearing loss is on the individual's ability to communicate with others. Spoken language development is often delayed in adults with partial hearing impairment as well as with unaddressed hearing loss. Unaddressed hearing loss and ear diseases such as otitis media can have a significantly adverse effect on the academic performance of adults. They often have increased rates of grade failure and greater need for education assistance. Access to suitable accommodations is important for optimal learning experiences but are not always available (WHO, 2019).

2.6.2 Social and emotional impact:

A study conducted to estimate the impact of hearing impairment on quality of life from a physical and mental standpoint revealed that hearing impairment was strongly associated with lower quality of life from both a physical and mental health standpoint. (Hawkins, K. et al.,2012), A cross –sectional study conducted to study the Socio-demographic characteristics, lifestyle factors and burden of morbidity associated with self-reported hearing and vision impairments in older British community-dwelling men revealed that Sensory impairment is associated with poor physical functioning, poor health and poor social interaction in older men(Liljas A.etal.,2016).

Exclusion from communication can have a significant impact on everyday life, causing feelings of loneliness, isolation, and frustration, particularly among adults with hearing impairment (WHO,2019).

2.6.3 Economic impact:

Approximately 141 million live births occurred in the world in 2012 and most of them – about 127 million – occurred in developing countries. The estimated incidence of

permanent congenital or early onset hearing impairment in developing countries in 2012 – six cases per 1000 live births – was three times higher than in developed countries. Although priority must be given to the primary prevention of hearing impairment, especially in low- and middle-income countries, secondary and tertiary prevention via early detection and treatment of hearing impairment, especially in infants and young children, are still needed and should be actively encouraged. Routine screening on school entry should be considered, as it can be more readily implemented than universal neonatal screening.. Although the cost–effectiveness of hearing aids, cochlear implants and other hearing devices has been demonstrated in several studies, albeit predominantly in the developed world, the costs of acquiring and maintaining such a device remain prohibitive for most potential users in low- and middle-income countries. According to WHO, the target price for an “affordable” hearing aid should be no more than 3% of the per capita of the user’s country which is too high for many low-income countries. In addition, they exclude the costs of ear moulds, maintenance and the periodic purchase of batteries. The scenario is even more daunting for cochlear implants, which are associated with an estimated lifetime cost of about US$ 90 000 per child with severe to profound hearing impairment.(Bolajoko O. etal., 2013) .

The effective rehabilitation of a child with hearing impairment is complex, WHO estimates that unaddressed hearing loss poses an annual global cost of US$ 750 billion. This includes health sector costs (excluding the cost of hearing devices), costs of educational support, loss of productivity, and societal costs (WHO,2019).

2.7 Risk factors for hearing impairments

Several factors have contributed to the upward trend seen in estimates of the global prevalence of disabling hearing impairment. One is the increasing prevalence of presbycusis as mean life expectancy increases in many countries. Another is improvement

in the technology available for the early detection and diagnosis of hearing impairment.18 A third reason is the widespread use of ototoxic medications for treating neonatal infections, ear infections, malaria, cancer, human immunodeficiency virus (HIV) infection and drug-resistant tuberculosis.21 Rubella, mumps and measles remain significant causes of hearing impairment in regions with inadequate vaccine coverage.18 Furthermore, rapid and uncontrolled urbanization in many emerging economies – coupled with a common lack of enforceable regulations on environmental and occupational noise – constitutes a growing source of noise-induced hearing impairment. In general, available estimates of the prevalence of hearing impairment remain crude because many countries struggle to conserve factors have contributed to the upward trend seen in estimates of the global prevalence of disabling hearing impairment. One is the increasing prevalence of presbycusis as mean life expectancy increases in many countries. Another is improvement in the technology available for the early detection and diagnosis of hearing impairment. A third reason is the widespread use of ototoxic medications for treating neonatal infections, ear infections, malaria, cancer, human immunodeficiency virus (HIV) infection and drug-resistant tuberculosis. Rubella, mumps and measles remain significant causes of hearing impairment in regions with inadequate vaccine coverage. Furthermore, rapid and uncontrolled urbanization in many emerging economies – coupled with a common lack of enforceable regulations on environmental and occupational noise – constitutes a growing source of noise-induced hearing impairment.

A self-reported study about Causes of Hearing Loss among Patients Presenting at an Audio-otology Camp in Rwanda revealed that Infections are perceived to be the most common cause of hearing loss in the investigated population. (Mukara B. etal, 2017), while WHO considered chronic otitis media is a common cause of hearing loss Among children. (Who 2019).

2.8 Diagnosis and detection

Primary Immunization, Avoidance of ototoxic drugs, solvents and industrial chemicals; rational and prescribed use only, use of antioxidants and secondary prevention such as surgeries and cochlear implantation of disabling hearing impairment.

Identification of a hearing loss is usually conducted by a general practitioner medical doctor, otolaryngologist, certified and licensed audiologist, school or industrial audiometric, or other audiometric technician. Diagnosis of the cause of a hearing loss is carried out by a specialist physician (audio vestibular physician) or otorhinolaryngologist. The early detection and treatment of hearing impairment in newborns and infants has a beneficial effect on language acquisition (Ptok M.,2018).

Congenital cytomegalovirus infection was present for 6% of newborns with confirmed hearing impairment, and the majority of those infants were identified on the basis of abnormal newborn hearing screening results (Stehel etal., 2008) .

2.9 Management of Hearing impairment

Treatment depends on the cause if known as well as the extent, type of the hearing loss. Most hearing loss, that resulting from age and noise, is progressive and irreversible, and there are currently no approved or recommended treatments; management is by hearing aid. A few specific kinds of hearing loss are amenable to surgical treatment. In other cases, treatment is addressed to underlying pathologies, but any hearing loss incurred may be permanent.

Since the causes has been recognized,it can be treated with medicine or a simple procedure.Some cases of sudden hearing loss may be treated using steroids.

2.9.1 Permanent hearing loss needs:

2.9.1.1 Hearing aids:

Hearing aids are small electronic devices worn in the ear that make sounds louder and clearer, although they won't give back full hearing.

2.9.1.2 Hearing implants:

when hearing aids don't help its required a special device fitted inside or to the skull during an operation. These are known as hearing implants which include bone anchored hearing aids, cochlear implants, auditory brainstem implants and middle ear implants.

2.9.2 Follow-up appointments:

Follow up with hearing specialist will tell about organizations that provide advice on obtaining assistive listening device (ALDs), such as: social services, government programs Representative institutions for disability;Atfaluna Association for Deaf Children which aims to help deaf children and adults in the Gaza Strip to provide them with a chance in life through education, rehabilitation, and job training,Addameer Association for Hearing Impairment the first representative institution of hearing impairment headed by persons with hearing impairment .

Service provider institutions related to disability in the Gaza Strip such as Future Association for the Hearing disability, Adults and Medical Relief - Help Tools Center and Sports clubs for people with disabilities and general hospitals such as Smile(Albasma) Club for people with hearing disabilities in Gaza

2.9.3 Sign language and lip reading lip:

while lip reading includes methods of learning to watch a person's mouth movements while they're speaking to understand what they're saying and sign language is a visual way of communicating using hand gestures, facial expressions and body language

2.10 Quality of Life

2.10.1 Historical evolution of the term QOL:

QOL as a notion is not novel in the latter half of the twentieth century. Rather, written concepts of living well and good life dates back at least to the philosopher Aristotle. However, new literature uses the term QOL. A search on the web revealed that the first use of quality and life dated back to James Seth in 1889, though, the popularization of the term within both lay and institutional discourses only evolved in the second half of the twentieth century. In the first instance, QOL referred to individuals‟ education, personal freedom, enjoyment, and welfare (Farquhar, 1995)There was also a shift from strictly measuring „objective‟ indicators of QOL (i.e. income, divorce rate, the number of cars per household) to include more „subjective‟ indicators (i.e. the individuals‟ sense of wellbeing and self-perceptions of their health and happiness).

In the medical field, QOL has been around for much of the twentieth century. Initially connected with the eugenics movement, later discussion shifted to the more humanistic domain. Shortfalls in the biomedical model of disease/illness and recovery in the post war era began to be debated and a move towards a more holistic patient paradigm (Farquahar, 1995).

QOL has been used as an outcome variable for assessment of disease type and treatment (Henderson, 2000). However, in recent years there has been call for the clarification of this term within the medical context, more specifically, health-related QOL (Farquhar, 1995). Today it is recognized that QOL extends beyond a strict medical discourse into areas such as sociology, psychology, environmental studies, social work and social policy.

2.10.2 Definitions of QOL:

A number of attempts to define QOL have been made, reflecting different approaches to the topic. World Health Organization (WHO) which identifies it as a multidimensional concept and defines it as "individuals' perceptions of their position in life in the context of the culture and value system in which they live and in relation to their goals, standards, and concerns" (WHO, 1993).

Raphael et al., (1996) defined quality of life as: the degree to which a person enjoys the important possibilities of his/her life.

McDowell & Newell (1987) suggested that quality of life "relates both to the adequacy of material circumstances and to people's feelings about these circumstances".

2.10.3 Definitions of Health Related Quality of Life (HRQOL):

The impact of an individual's health status on his ability to function in the important domains of his life (Staquet et al., 1998). HRQOL has been defined as a multidimensional construct (Bowling, 2000). It includes the patient's sense of his well-being within the multiple domains of psychological, social, and physical functioning, as well as the disease-specific domain, which reflects one's sense of how a specific disease is uniquely impacting function in those three domains (Paula et al., 2002).

2.10.4 Measuring QOL:

Because the use of scientific methods to assess QOL is in its infancy and a gold standard for QOL assessment does not exist, caution in applying QOL measures to allocate health care resources is imperative (King & Hinds, 1996). QOL research has demonstrated differences between QOL assessments made by health care providers and patients. When discussing QOL, it is important to distinguish it from related, but different, concepts, including well-being, health status, life satisfaction, and hope. It is important also to

evaluate the relationship of culture and QOL because QOL perceptions of an individual are culture bound, varying from society to society. Little work has been done to address cultural issues in QOL research and the impact of culture on perceptions of QOL (Fowlie et al., 1989; King et al., 1995; Slevin et al., 1988). According to Raphael et al. (1996), there are some issues in measuring quality of life: these are whether focus should be on objective (e.g., medical status, mobility, quality of housing, etc.). Another issue whether data should describe and be collected from individuals (micro-level data) or describe the functioning of the systems (e.g., income distribution, availability of health services, etc.). Another question is whether measures should be explicitly value-laden (e.g., personal control and independence are fundamental quality of life indicators) or value-neutral (e.g., personal control and independence may be desirable for only some individuals).

Benefits of QOL measurements: When adequately measured, QOL has been used to distinguish different patients or groups of patients, to predict individual outcomes, and to evaluate the effectiveness of therapeutic interventions. In addition, QOL evaluation has a number of potential uses in aiding routine clinical practice: it can help physicians to prioritize problems, to communicate better with patients, to screen for potential adversities, and to identify patients' preferences(Berlim and Fleck, 2003).

There is another specific area of QOL that is health-related quality of life (HRQOL). This area of assessment seeks to evaluate the individual's health-related quality of life, i.e., the impact of an individual's health status on his ability to function in the important domains of his life. Overall, HRQOL includes the patient's sense of his well-being within the multiple domains of psychological, social, and physical functioning, as well as the disease-specific domain, which reflects one's sense of how a specific disease is uniquely impacting function in those three domains (Trief et al., 2002). For population with hearing loss, Improving knowledge of the health-related determinants that affect quality of life for the is

an important step in designing targeted services and interventions. In light of these findings, a special effort must be made to ensure the wellbeing of this population (Tsimpida et al., 2018). When rating QOL, patients give greater emphasis to mental health than to physical functioning. This pattern is reversed for appraisals of health status, for which physical functioning is more important than mental health. As a conclusion, quality of life and health status are distinct constructs, and that the two terms should not be used interchangeably.

Instruments of measuring QOL:

Global, generic, and specific instruments represent three different types of measures for the assessment of quality of life (Wiklund et al., 2000).

Global measures are those designed to measure quality of life in the most comprehensive or overall manner. This may be a single question that asks the person to rate his/her overall quality of life or an instrument such as the Flanagan Quality of Life Scale that asks people to rate their satisfaction on 15 domains of life.

Generic measures have much in common with global measures and were designed primarily for descriptive purposes. In health care they delineate as comprehensively as possible the full impact of a disease or its symptoms on the patient's life. Generic measures are applicable to a wide range of populations (e.g., WHOQOL-BREF instrument).

The main advantage is their broad coverage and the fact that they allow comparisons of different patient populations or across studies. A disadvantage is that they may not address topics of particular relevance for a given disease(Aljedi, 2005) .

Specific measures focus on a particular problem within a patient group such as pain, fatigue, physical functioning. These measures are useful for monitoring specific problems that are to be addressed by an intervention (Aljedi, 2005).

Instruments may also vary in the method of administration. Standardized questionnaires allow uniform administration and unbiased quantification of data, as the response options are predetermined and thus equal for all respondents. Increasingly, the emphasis has been on self-administered questionnaires. However, these may exclude certain groups of patients, for example, those who cannot read or write, the elderly, people with hearing impairment and those with severe somatic conditions. Another problem is that the use of self-administered questionnaires can mean the possible loss of data if patients do not fill out every question. Quality control can minimize this problem. Interviews have the advantages that most patients can be assessed and the completeness of the data is ensured. These advantages tend to be outweighed by the disadvantages of time and expense (Wiklund et al., 2000).

2.11 Studies Conducted in Palestine on QOL

Mushtaha (2017) conducted a descriptive analytical cross sectional study to assess and evaluate the Quality of life among patient with glaucoma in Gaza governorate at two governmental hospitals in Gaza strip (Al Nasser ophthalmic hospital and European Gaza Hospital) including 256 glaucoma patients whose age was 18 years and above he used Glaucoma Quality of life -15 questionnaire (GQL-15) and Short –form 36 health survey (SF-36) , the study showed that participant had a medium perception level of QOL. Patient showed the greatest difficulty in activities involving glare and dark adaptation , the bodily pain domain got the highest score so the finding demonstrate that patient with glaucoma disease had a medium level perception about their QOL. (Mushtaha ,2017)

Hannoun (2012) conducted a quantitative cross-sectional study aimed to investigate the perceptions of ischemic heart disease patients in Gaza City regarding their QOL, and the factors influencing their life status. The study was conducted by using a self-constructed questionnaire, which focused on new aspects of QOL like lifestyle, severity of ischemic heart 33 disease and health care. A convenience sample of 208 ischemic heart disease patients from AlShifa medical complex completed the questionnaire. Regarding the participants' evaluation of their QOL level (global value); (38%) were rated their QOL as “neither good nor poor”, (24.5%) were reported it as “well”, and (10.6%) as “very good”, while (22.1%) described it as “poor” and (4.8%) as “very poor” (Hannoun, 2012)

Nofal (2010) conducted a descriptive, analytical cross-sectional study in GS. The general purpose of the study was to assess the QOL among breast cancer patients. The response rate was (94%) among 102-target population. The mean age of patients was 52.4 years. (79.2%) of patients had secondary certificate or less, (70%) of them were married, and (66.7%) were not employed with monthly income of less than 250$. The results of the study showed that, (80%) accepted their general QOL, (60%) of them were satisfied about their health. The highest score in QOL domains was the social domain in the presence of family and friends‟ support. Employment, level of education, and monthly income played a significant role in increasing QOL. There was highly statistically significant relation between these variables and high score of the domains of QOL (Nofal, 2010).

Khleif and Imam (2013) did a study in the three main hospitals - BeitJala Governmental Hospital, Watani Governmental Hospital, and Augusta Victoria Hospital - for cancer care in the West Bank, between May 1, and July 31, 2012. Patients aged 18-90 years with cancer who attended the hospitals for treatment and follow-up were selected by convenient sampling and had qualitative in-depth interviews. Ten patients completed the qualitative in-depth interviews and 323 of 350 patients (92%) completed the cross-sectional

quantitative questionnaire EORTC QLQ-C30. In the regression analysis, predictors of poor-health-related QOL (defined 32 as <50, mean score 41.8) were: patients having advanced stage of cancer (β=−0·3, p<0·0001), poor economic situation with an income of less than 2000 NIS (β=0·19, p=0·001), low educational level <10 years, (β=0·12, p=0·04), and longer than 6 months of treatment(β=−0·11, p=0·04). The QOL domains with poor scores (mean score 48·5) were: physical role (48·8), emotional role (46·0), and social functioning (50·0), whereas the scores were worse for financial difficulties (64·6) and for symptoms (fatigue: 66·6, pain: 63·0 and insomnia: 56·4). These results were worse than those of patients with cancer in Kuwait, Turkey, and the UK(Khleif and Imam, 2013).

Luzon (2008) conducted a cross-sectional design study aimed to examine the QOL and to identify most common factors influencing the QOL in long-term rehabilitated stroke survivors in GS, by using Short Form-36 (SF-36) instrument that assesses satisfaction and importance of the eight domains (general health, physical functioning, mental health, role limitation due to physical health, role limitation due to emotional problems, bodily pain, vitality, and social functioning). The study showed that, the stroke survivors had good QOL with (55.6%). The mental health was the best QOL domain (81.28%), followed by general health (77.77%), bodily pain (76.24%), and vitality (71.6%) almost similar with social functioning (71.39%). The poorest QOL domain was role limitation due to physical health (28.05%), followed by physical function (40.89%), and role limitation due to emotional problems (42.97%) (Luzon, 2008)

2.12 International Studies Conducted on QOL

Adriana V. Hyams (2018) conducted a study At the University of Alabama and rural public health departments in surrounding counties, tested 100 males and females aged 60–87 using pure-tone audiometry. They completed Short Form-36 and Medical Outcome Study assessments. It was analyzed data with MANCOVA (covariate income), to assess

quality of life (QoL) in older adults with and without hearing loss (HL) and to study how hearing aids were associated with QoL. it hypothesized participants with normal hearing would have significantly better QoL than participants with HL and hearing aids, and participants with HL but no aids would have the worst QoL.the study showed that participants without hearing aids had significantly poorer QoL than participants with normal hearing, who did not significantly differ from participants with aids, general health drove the difference. The study concluded that hearing aids are associated with better QoL than having HL and going without aids. Clinical psychologists can improve coping among those with HL and motivate hearing aid use (**Hyams,2018).**

Dayna S Dalton(2003) Conducted a population-based longitudinal study of age-related hearing impairment in Beaver Dam, with sample size of 2,688 Participants they were 53-97 years old (mean = 69 years) and 42% were male. Difficulties with communication were assessed by using the Hearing Handicap for the Elderly-Screening version (HHIE-S), with additional questions regarding communication difficulties in specific situations. Health-related quality of life was assessed by using measures of activities of daily living (ADLs), instrumental ADLs (IADLs) and the Short Form 36 Health Survey (SF-36) to investigate the impact of hearing loss on quality of life in a large population of older adults.the study showed that 28%Of participants had a mild hearing loss and 24% had a moderate to severe hearing loss. Severity of hearing loss was significantly associated with having a hearing handicap and with self-reported communication difficulties. Individuals with moderate to severe hearing loss were more likely than individuals without hearing loss to have impaired Activities of Daily Living (**ADLs**) and Instrumental Activities of Daily Living(IADLs). Severity of hearing loss was significantly associated with decreased function in both the Mental Component Summary score and the Physical Component Summary score of the SF-36 as well as with six of the eight individual domain scores (Dalton,2003).

Zahran, S. (2010) conducted a study about the Quality of life for the hearing impaired in light of some demographic variables, aimed to understand the nature of the relationship between the quality of life of the hearing-impaired and both self-concept, self-monitoring, achievement motivation, and an attempt to explain relationships. Therefore, The research tools included - The Quality of Life Scale for the Hearing Impaired, prepared by the researcher. - The Self-Concept Scale, prepared by Ezz El-Din Al-Ashwal, 1984. - The Motivation for Achievement Test prepared by Farouk Abdel-Fattah Moussa 1996.-The Self-Awareness Scale prepared by Abdel-AalAjwa 1992.-Self-Observation Scale prepared by Naima Shams The Pillar of Diabetes 2009. The sample of the study consisted of 83 male and female students from the Vocational Secondary Institute for the Deaf and Hard of Hearing in Shebin al-Kom, with 41 male and 42 female students between (16-20) years old with an average age of 18.5 years and a standard deviation of (2.5) belonging to the social and economic hard-of-hearing groups recorded in the records of school Students. The results resulted in a positive, statistically significant relationship between the quality of life and each of the self-concept, self-awareness, self-monitoring, and achievement motivation for the hearing-impaired, as well as the study variables predicting the quality of life for the hearing-impaired, and the self-monitoring variable is considered the most influential on the quality of life, where the first is ranked in the equation Regression, and it contributed 85.7% to the variance in quality of life scores, while the rest of the study variables contributed by 7.1% to the variance in quality of life scores (Zahran,2010).

Al-Zboon, et al.(2014)conducted a study aimed to identify the quality of life level of undergraduate students with disabilities at Jordanian universities. The sample consisted of (147) students. A quality of life scale was constructed, then it was validated, and then it was administrated to the sample of the study. Results revealed that students with disabilities have a medium level of quality of life expressed in a total score of (3.48), meanwhile, the highest mean was for religious and spiritual domain (4.4) and the lowest

mean was for cognitive/mental domain (2.93). Results also revealed no statistically significant differences in all domains of the scale and the total score due to disability type or severity. In addition, there are statistically significant differences in the total score due to gender in favor of females(Al-Zboon, et al., 2014)

Hughes.S, et al.(2014) conducted study about Hearing Loss in the Middle East: Attitudes of Kuwaiti Adults, this study attempted to measure the attitudes toward people with hearing loss (PWHL) of people living in Kuwait, a country in which audiology services are relatively advanced but less widely available than in Western countries. A questionnaire to measure attitudes toward PWHL was administered to 943 university students and adult members of the general population living in Kuwait. Results indicated that many of the respondents' attitudes toward hearing loss and PWHL were generally positive. There were, however, some significant differences in responses on the basis of gender, and some misconceptions about hearing loss and its effects were observed. These findings indicate that people in Kuwait demonstrate attitudes toward hearing loss that are similar to those expressed outside of the Middle East, including North America and some European countries. As such, interactions between people with hearing loss and with normal hearing may be improved by increased education of the general public in Kuwait about hearing loss and its effects (Hughes.S, et al,.2014).

Schulz, K. A.et al.(2017)conducted Cross-sectional design. Demographics, perception of patient's hearing loss, and associated burden on the Communication partner were collected from both patient and Communication partner via online questionnaires. Patients and their Communication partners from Duke University Medical Center Otolaryngology Clinic, 55 to 75 years of age, being seen for any reason, who indicated a Communication partner has expressed concern about their hearing. Final sample was 245 matched pairs. The study Based on completed questionnaires showed on average, patients perceived their own hearing loss as more burdensome to the Communication partner than the Communication

partner did. However, Communication partners of patients who believed themselves to have no hearing handicap scored the patient's hearing loss 54.3% higher than the patient. The patient's perspective about the amount of burden their hearing loss placed on the Communication partner predicted patients seeking a hearing evaluation . Recognition of early stage hearing loss and associated burden on Communication partners may be delayed in patients; Communication partners may help elucidate unrecognized concerns. Educational approaches that raise awareness of burden of hearing loss on Communication partners along with hearing loss indications could be a feasible, multidimensional strategy to promote help seeking behaviors(Schulz, K. A.et al., 2017).

Beechey, T. et al.(2020)conducted a study to investigate the hypothesis that hearing aid amplification reduces effort within conversation for both hearing aid wearers and their communication partners. Levels of effort, in the form of speech production modifications, required to maintain successful spoken communication in a range of acoustic environments are compared to earlier reported results measured in unaided conversation condition the study performed on Fifteen young adult normal-hearing participants and 15 older adult hearing-impaired participants were tested in pairs. Each pair consisted of one young normal-hearing participant and one older hearing-impaired participant. Hearing-impaired participants received directional hearing aid amplification, according to their audiogram, via a master hearing aid with gain provided according to the NAL-NL2 fitting formula. Pairs of participants were required to take part in naturalistic conversations through the use of a referential communication task. Each pair took part in five conversations, each of 5-min duration. During each conversation, participants were exposed to one of five different realistic acoustic environments presented through highly open headphones. The ordering of acoustic environments across experimental blocks was pseudo randomized, Resulting recordings of conversational speech were analyzed to determine the magnitude of speech modifications, in terms of vocal level and spectrum, produced by normal-hearing talkers as

a function of both acoustic environment and the degree of high-frequency average hearing impairment of their conversation partner(Beechey, T. et al., 2020).

2.13 Characteristics of the hearing impaired:

The hearing impaired has characteristics that differ from one individual to another, affected by several factors, such as the age of the disabled And the degree of hearing loss suffered by him and the time of infection. Al-Tuhami and others agreed that The hearing impaired have psychological, social and cognitive characteristics

2.13.1 Psychosocial characteristics:

The hearing impaired generally tend to isolate him/herself and avoid others as a result of their feelings of being unable to communicate and not being able to participate or to belong to other individuals, just as they are dependent on others and have a low self-esteem due to their exposure to situation may be characterized by neglect, lack of acceptance and ridicule, and sometimes compassion especially when it happens in front of them, as hearing impaired have often been exposed to many others during their childhood to communicating with the ordinary and those simplified situations turn them into aggressive feelings towards others in many cases (Al-Tohamy et al., 2006).

2.13.2 Mental characteristics:

The intelligence of hearing impaired adults is very similar in terms of its distribution and spread with people without disabilities, and this does not mean that the mental and intellectual development patterns of the hearing impaired, Identical to their non-disabled peers, as language deficits are necessary to formulate educational programs Especially keeping pace with their intellectual development (Habbo, 2009).

Chapter three

Methodology

3.1 Study design

The design of this study is a mixed method that involves utilizing both quantitative and qualitative data. This methodology allows collecting richer data than do separated quantitative and qualitative data collection and analysis. Therefore, the mixed method would decrease the weaknesses of each separated form of data, thus, it would provide better understanding of the research problem than either method alone (Creswell, 2013).

Quantitative data design was cross sectional one. it reflected the presented facts at one point of time of data collection (Levin, 2006). Cross sectional studies are relatively quick, cheap, and could be done by questionnaire (Mann, 2003). In this study, the data was collected from beneficiaries and service providers, using a well-structured questionnaire. In addition, focus group discussions with guiding questions were conducted to collect qualitative data from beneficiaries to assess the challenges facing adults with hearing impairment.

3.2 Study settings

Recruitment was done through schools, community organizations that providing services for individuals who have hearing disability.

The study were conducted at 6 areas selected units which provide and conduct with people with hearing impairment in the GS which are distributed at the governorates of the GS; Mostafa Al-RafeaiaSecondery school (Gaza City governorate), Deer Albalah ; Al-Dameerassosiation (Mid Zone governorate), PRCS alamal school and Faculty of Capacity Development (Khan Yunis governorate), Alamal school Rafah , Disabled Rehabilitation and Social Training Association (Alhanan school at Deer al-Balah, Besan school at

Nusirat camp, Jabalia school at Jabalia camp) and The Center for Disability Services at the Islamic University .

3.3 Study period

The consumed time of the study was 11 months; it started in August, 2019 and completed by April 2020. The activities of the research and the duration for each activity were described in Annexes (Annex 2) .

3.4 Study population

Population of study was the individuals attended the selected sittings in GS centers. According to PCBS records (2017), a total of 9821 person (4450 female , 5371 male) suffering of hearing impairment from both gender in the GS. Each unit provides services according to its capacity.

3.5 Study sample

Sample size was taken by using the method of convenience sampling, in the way that guarantees the accessibility of the sample member and eligibility of the research , the sample size calculated by using online sample size calculator Raosoft with 5% margin of error, 95% of confidence level and population size 482. So, it gave a sample size of 215 cases who were selected randomly from different sittings in the GS . The activities of the research calculating sample size is described in Annexes (Annex 3) .

3.5.1 For quantitative data:

This study utilizes WHO instruments; a WHOQOL-BREF & Disabilities Module questionnaire distributed to 215 person according to the sample size and the proportional representation of cases at selected sittings.

3.5.2 For qualitative data:

In-depth interview with guided questions done to 10 adults with hearing impairment who accepted to cooperate with the researcher .

3.6 Eligibility criteria

3.6.1 Inclusion criteria:

A. For quantitative data:

1. Adults who have received educational technical services whose age is 19 years and more.
2. Adults who are alert, oriented and able to respond to Questionnaire cooperatively.

B. **For qualitative data:** cases with hearing disability accepted to participate in the interview.

3.6.2 Exclusion criteria:

A. For quantitative data:

1. Individuals who have special psychological disorders.
2. Individuals who are uncooperative.
3. Young children, as they will be not able to participate in the study and below age 18 years.

B. For qualitative data:

1. Individuals who have mobility or other disability than hearing and who have psychological situations, uncooperative.

3.7 Study instruments:

This study utilized the two instruments; a WHOQOL-BREF & Disabilities Module questionnaire and guiding questions for in-depth interviews.

WHOQOL-BREF questionnaire:

The WHOQOL is a quality of life assessment developed by the WHOQOL Group with fifteen international field centers, simultaneously, in an attempt to develop a quality of life assessment that would be applicable cross-culturally. The WHOQOL-BREF is an abbreviated version of the WHOQOL-100 quality of life assessment. It produces scores for four domains (physical health, psychological, social relationships and environment) related to quality of life .The WHOQOL-BREF, an abbreviated 26-item version of the WHOQOL-100, was developed using data from the field-trial version of the WHOQOL-100.

It also contains two other questions are examined separately: question 1 asks about an individual's overall perception of quality of life and question 2 asks about an individual's overall perception of their health. The four domain scores denote an individual's perception of quality of life in each particular domain. Domain scores are scaled in a positive direction (i.e. higher scores denote better quality of life),(WHO, 1996).

For qualitative study:

Guiding questions for interviews were used, the guiding questions covered areas of general views about work and management at sittings they visit or join in the GS, availability of policies and guidelines, availability of protocols and the extent to utilize it, challenges that adults with hearing impairment including the medical and educational services provision, and areas of future improvement.

3.8 Pilot study

A pilot study on 20 cases with HI was done to assess the adequacy of the data collection plan, to explore whether respondents understand the questions, to minimize the problems which may raise during data collection and identify all domains and components of the

instrument as well as to determine the exact time needed to fill the questioners. The cases are included in the study.

3.9 Validity

The researcher used approved international questionnaires. The questionnaire were constructed (English and Arabic) through adapting previously tested instruments in order to best serve the study objectives. The WHOQOL-BREF (Annex 5) has been validated and has demonstrated good content validity, discriminate validity, test-retest reliability, and internal consistency which the researcher calculated by using of Person Formula revealed that all the paragraphs belong to their axis where the level of significance ($\alpha \leq 0.01$) and this confirms the internal consistency of the questionnaire.

3.10 Reliability

Reliability is the consistency of measurement over time (Creswell, 2009). The questionnaire has revised and reviewed by sign language experts for purpose of modification who advised regarding internal content validity and appropriateness and its simplicity to be translated to sign language. The Cronbach's Alpha was used for the measurement of the reliability of the tool .

Table (3.1) Cronbach Alpha used for the reliability of the tool

No.	Domain	Item number	Alpha Cronbach
1	Global domain question number 1	1	0.896
2	Global domain question number 2	1	0.805
3	Physical domain	7	0.598
4	Psychological domain	6	0.576
5	Social domain	10	0.756
6	Environmental domain	1	0.783
	Total	26	0.736

3.11 Data collection

For quantitative data, the data collected by the researcher and, through visiting the selected sittings, and interviews conducted with participants to answer questionnaire, with taking in account not to disturb the daily work at the visited unit. Data collection taken place at different days of the month to assure equal chances for sample selection and also represent various days of the month that be captured and selected randomly.

On the other hand, for qualitative data, the researcher invited the participants to participate in the interviews group. The interviews and discussions were taken place in a signed time and identified place. The participants has informed about their right to not answer any question, and the discussions has recorded. All materials of discussions would be kept in safe place and would be accessible only by the researcher.

3.12 Data entry and analysis

- Statistical Package of Social Science (SPSS) program version 20 was used for data entry and analysis.
- Descriptive statistics such as means, medians, cross tabulations were used to show sample characteristics differences between age, income etc,
- Inferential statistics, t-test and ANOVA, will be used to find the relationship between QOL dimensions and other independent variables.

3.13 Ethical Considerations

An official letter of administration approval to conduct the study has obtained from School of Public Health at Al-Quds University and Helsinki Committee in the GS (**Annex 6**). An administration approval will be asked from the director of selected area departments of in the GS.

3.14 Limitations of the study

1. Lack of previous studies targeted adults.
2. Graduated adults with hearing impairment are hard to access and difficult tomake contact with them.
3. The number of schools and association for people with hearing impairments in Gaza strip is limited .
4. The study included clients mainly enrolled in schools or technical programs or had graduated from any educational ,social settings
5. Frequent power shortage.

3.15 Response rate

According to the eligibility criteria, the researcher selected 215 patients whose age was more than 19 years to participate in the study. A total number of 210 patients agreed, which represented (97.6%) of the study population while 5 patients refused, which represented (2.3%) of the population

Chapter Four

Results and Discussion

This chapter presents the study finding, the researcher reviewed the main findings through descriptive and inferential analyses, and made verbose explanation to the important results which intersected with study objectives, the study results discussed and compared in the light of the previous studies.

4.1 Descriptive analyses

4.1.1 Characteristics of the study participants (n=210):

Table (4.1) Distribution of the frequency of the demographic and socio-economic and health variables of the study participants, (n=210).

Personal profile		
Gender	Frequency	Percent
Male	103	49.0
Female	107	51.0
Age		
19-29	162	77.1
30-39	28	13.3
40-49	15	7.1
50-59	5	2.4
Education level		
Nothing	8	3.8
Elementary	22	10.5
Preparatory	66	31.4
Secondary	65	31.0
Vocational	49	23.3
Social status		
Single	168	80.0
Married	37	17.6
Widowed	1	0.5
Divorced	4	1.9
Income		
Non	10	4.8
Poor	55	26.2
Middle	130	61.9
High	15	7.1
Family interaction		
Non	4	1.9
Weak	24	11.4
Middle	127	60.5
High	55	26.2
Total	**210**	**100.0**

Table (4.2) Distribution of the frequency of the health variables of the study participants, (n=210).

Health profile		
Inherited	Frequency	Percent
No	89	42.4
Yes	121	57.6
Total	210	100.0
Other Associated disability		
No	172	81.9
Yes	38	18.1
Other Health problems		
No	159	75.7
Yes	51	24.3
Using hearing aids		
No	155	73.8
Yes	55	26.2
Commitment to health follow up		
No	88	41.9
Yes	122	58.1
Total	**210**	**100.0**

4.1.2 Demographic variables:

4.1.2.1 Gender:

The study results showed that 51.0% of participants (n=107) were female and 49.0% (n=103) were male. This result assemble the normal distribution in the Palestinian society as Women represent half of the Palestinian societyThe population in Palestine estimated 4.98 million in mid-2019, including 2.53 million males 51.0% and 2.45 million females 49.0%, whereas the sex ratio stood at 103.5, which means that there are 103.5 males for every 100 females (PCBS.2019).

4.1.2.2 Age:

The age of participants was divided in to four categories as following (19-29 years, 30-39 years, 40-49 years and 50-59 years).

The maximum percentage was noted among adults with hearing impairment aged 19-29 years , which represented 77.1% while the lowest was noted among those who aged 50-59 years which represented 2.4%. The researcher explained this rate because in last decades the interest and care in hearing disability increased in Gaza strip such as primary detection and screening as attempt to follow such cases and caring to provide educational and social services to engage them with the community activities it's the productive stage of life were individuals have energy and enthusiasm to participate in the educational and social affairs.

4.1.2.3 Educational level:

The table identified the educational level of the participants , the researcher find that 10.5% of them have elementary or primary education, 31.4% have preparatory education 31.0% secondary education, 23.3% have a vocational education .

preparatory and secondary education have higher ranks than vocational mainly the preparatory due to the community interest and the availability of preparatory education in much more than others as well as the lack of programs in universities though two decades ago the Center for Disability Services at the Islamic University established to meet the students' needs with hearing , Visual and mobility disabilities and help them integrate into university life without problems. But It is the only center in Gaza that volunteers technology services to facilitate the university life for students with disabilities. It provides only vocational program for those who graduated from the only secondary school in Gaza

Mustafa Al Rafeia and there is no academic programs in universities for adults with hearing impairment so the opportunity to gain and join the preparatory schools is higher .

4.1.2.4 Marital status:

In table (4.1) 80.0% of the sample cases were single those who were married, widowed or divorces represent 20.0% of all cases, this because of their awareness of their situation and fear of giving babies with same hearing impairments and difficulties to find a partner to live with and understand , communicate with them as well as acceptance of their disability.

4.1.2.5 Income level:

The table identified the income level with the majority of middle income with 61.9% which reflect their ability to work andgain their living while working as carpenters , mechanics and plumbers while 26.2 % live with poor income they depend mainly o their families who depend on the aids of social affairs , 4.8 % with no income they didn't find opportunity to work or keep a sustainable job , and only 7.1% live with high income most of them employees and working in their own business after their regular job , the present reflect their satisfaction of what they have .

4.1.2.6 Family interaction:

The table identified that the majority of the sample have a middle level with family interaction and communication with family members with 60.5% , 26.2% have high family and siblings interaction. The researcher explain this present to families who involved in learning their language and having other siblings with same hearing impairment

4.1.2.7 Inherited situation:

The table identified that 57.6% of participants with an inherited hearing impairment and have previous family members with hearing difficulties. 42.4% are not inherited and it is from various causes infectious diseases, delivery complications , using drugs , exposed to noise and elderly complication in adults mainly get affected because of exposing to high noise

4.1.2.8 Associated disability:

It is cleared in the table that 81.9% have no associated disability as they mainly targeted to explore specifically the effect of HI in their life while 18.1% with another disability mainly speech , mobility and cognition problems which represent increasing in negative impact such as isolation and limited participation .

4.1.2.9 Another health problems:

The table showed that 75.7 % have no health problems most of them enjoying a good health in compared with people with no disability the researcher explained the HI individuals as they not considered themselves as a disease carriers as much as it's an adapting health condition while 24.3% complain of health problems such as back pain which could limit their energy to work and gain their living .

4.1.2.10 Using hearing aids:

Adults with hearing impairment who are using hearing aids contributed with 24.3% which is low if it compared to those who are not using hearing aids with percent 75.7% the researcher noticed while interviewing them that they can't afford to purchase and its expensive as well as they suffering from many problems while using such devices such as a whistling noise,uncomfortable and The sound isn't clear… etc.

The researcher clarify that individuals with hearing impairment perceive and experience a range of feelings and emotions about their condition , seeking care, and using such technologies as hearing aids. Negative attitudes and beliefs about their hearing difficulties can originate both internally; arising from the beliefs and attitudes of the individual experiencing HI , and externally; produced by the beliefs and attitudes held by various social connections, including family members, friends, health care professionals, employers and coworkers, the general public, and the media. When considering how HI may affect self-perception and social identity, many individuals cite fears of feeling or being perceived as old, frail, less capable, vulnerable, uninteresting, unattractive, or less desirable or as having a disability or cognitive impairment Because of these perceptions, they hide their hearing difficulties or deny that it affects their lives, and avoid seeking treatment, or choose not to use hearing aids after they have been purchased. attitudes and beliefs about HI are directly linked to their behaviors.

4.1.2.11 Follow up commitments:

58.1% of participantswere showed commitment to follow up their health condition and doing frequentelectrocochleographic audiometryandAudiogram, which is considered a good percent shows their interest to participate in developing and improving their health condition,the follow-up includes the involvement of specialized professionals of a multidisciplinary team and a complex and prolonged multi-faced management that based on an effective cooperation between the multidisciplinary team, family and health care professionals , the percent showed their intend to keep updating about their condition and their interest about the benefit of intervention/rehabilitation unfortunately, the tertiary centers lack the periodically evaluation for hearing impaired in order to assess the aided auditory response, cognitive and attention development, auditory processing skills and

language development.The follow-up evaluation gives a measure of the rehabilitative treatment efficacy and allows to modulate it according to the needs of the adults with HI.

4.2 Global domains

4.2.1 Perception about QOL (WHOQOL-Brief- 26) according to How adults with hearing impairment would rate their Quality of Life:

Table (4.3) illustrated this issue , data on were collected from the participants to the questionnaire and analyzed using Frequency and Percent.

Table (4.3) Perception about QOL (WHOQOL-Brief- 26) according to How adults with hearing impairment would rate their Quality of Life

	Frequency	**Percent**
Very good	18	8.6
Good	71	33.8
Ok	68	32.4
Bad	50	23.8
Very bad	3	1.4
Total	210	100.0

Results listed in table (4.3) indicated that 1.4% of participants had shown a very bad about their quality of life, also it indicated that 23.8%revealed bad quality of life, 32.4% revealed ok , 33.8% indicated good, and 8.6% indicated very good about their quality of life , and here it clearly shows that the evaluation rate quality of life of the participants relatively weak, and the researcher attributes this to the nature of the obstacles and problems of this social group, especially in Palestinian society, due to the absence of optimal attention to this group at the official and popular level which generated a kind of frustration among the study sample that led to these results about assessing the quality of life, and this Consistent with the study (Barry, et al., 2016). In which the negative feelings in the study sample dominated the direction of the subject of assessing the quality of life and the absence of a positive outlook, and a state of frustration prevailed.

4.2.2 Perception about QOL (WHOQOL-Brief- 26) according to Satisfaction with their health:

In addressing this issue, data were collected from the responses to the questionnaire and analyzed using Frequency and Percent,

Table (4.4) Perception about QOL (WHOQOL-Brief- 26) according to Satisfaction with their health

	Frequency	Percent
Very satisfied	36	17.1
Satisfied	95	45.2
not satisfied nor unsatisfied	45	21.4
Dissatisfied	33	15.7
Very dissatisfied	1	0.5
Total	210	100.0

It appears from the Table (4.3) that 0.5% of the participants shown as Very dissatisfied of their health Satisfaction, 15.7%of the participants shown dissatisfied, 21.4% not satisfied nor unsatisfied, 45.2% indicated satisfied with their health, and 17.1% Very satisfied, and the researcher attributes that resultdue to the persistence of the study sample from those with hearing impairment and their challenges to the circumstances and obstacles around them and their desire for a better life than the life in which they live and to become active and productive persons in society.

4.2.3 QOL domains analyses (Physical, psychological, social and environmental) Distribution of Reponses in reference to physical related items (physical domain):

It illustrate the level of Quality of Life Among Adults with Hearing Impairment in the Gaza Governorates related to the items of physical domain which from the responses to the questionnaire WHOQOL-Breif-26and analyzed using mean, standard deviation, Proportional mean, and one samples t-test, through analysis of dimensions and paragraphs, The findings are shown in Tables (4.5).

Table (4.5) Distribution of Reponses in reference to physical related items (physical domain)

No of questions	Item	Mean	SD	% mean	Test value	*P-value (Sig.)	Rank
3	To whatextent do youfeelthat (physical) pain preventsyoufromdoing whatyouneed to do?	2.500	0.919	50.0	-7.885	0.000	6
4	How much do youneedanymedicaltreatment to function in yourdaily life?	2.457	1.003	49.1	-7.846	0.000	7
10	Do you have enoughenergy for everyday life?	3.381	0.992	67.6	5.567	0.000	5
15	How well are you able to getaround?	3.500	0.960	70.0	7.550	0.000	1
16	How satisfied are youwithyoursleep?	3.405	1.231	68.1	4.766	0.000	4
17	How satisfied are youwithyourability to performyourdaily living activities?	3.481	0.960	69.6	7.264	0.000	2
18	How satisfied are youwithyourcapacity for work?	3.438	1.035	68.8	6.137	0.000	3
	Sum	3.166	0.553	63.3	4.352	0.000	

Obviously as finding in table (4.5) that The mean of the field "physical domain" equals 3.166, 63.3%, Test-value = 4.352, and P-value=0.000 which is smaller than the level of significance. The sign of the test is positive, so the mean of this field indicated a significant portion of participants, The researchers concluded that the level of the "physical field" was average.

The researchers concludes that the respondents agreed to this item and the researcher believes that the percentages of all paragraphs of the table (**4.4**) came close to the study sample in answering what the respondents were exposed to during the past two months, which may have affected their daily lives and the level of their acceptance of reality, due to the special nature experienced by people with hearing impairment and that most of the

paragraphs in The previous table is close to being affected and the preference was to influence in question 15, which states "How far are you able to tour? And occupied the first rank when experienced certain things in the last four weeks, With a relative weight 70.0%, and this is due to the researcher's follow-up of many cases through the application of the questionnaire, and the personal interview with them of the need of most of the members of the study sample." To prove himself as a natural member of society and to try to integrate into the frameworks of his community by touring various places most of the time,This is one of the things that researchers are most concerned about treating almost permanently, which is one of the most important elements of them, and this is consistent with the study of (Eikelboom, RH . 2019),Which believes that most people with hearing disabilities may need to develop their sense of social participation by providing them with the freedom to roam and participate in all social activities without distinguish . The results of question No. 4, which states: How much do you need any medical treatment to work in your daily life ? 49.1% as evidence of the degree of their inner power and believing in themselves and their ability to challenge and overcome their disability, they face different social situations, and live positively before searching for treatment. The treatment is in the last rank to keep themselves away from that they have a deficiency or considering their condition as a disease that needs medical treatment despite rehabilitation treatment and this is consistent with the study (KL, 2016), which was of the most important results that the hearing impaired despite their being The elderly except that they carry strong personal genes to face challenges and live positively and do not prefer treatment.

Distribution of Reponses in reference to psychological related items (Psychological domain)

It illustrate the level of Quality of Life Among Adults with Hearing Impairment in the Gaza Governorates related to the items of Psychologicaldomain which from the responses

to the questionnaire WHOQOL-Breif-26 and analyzed using mean, standard deviation, Proportional mean, and one samples t-test, through analysis of dimensions and paragraphs.

Table (4.6) Distribution of Reponses in reference to psychological related items (Psychological domain)

no	Items	Mean	Std. Deviation	%mean	Test value	P-value (Sig.)	Rank
5	How much do youenjoy life?	3.157	0.948	63.1	2.402	0.017	5
6	To what extent do you feel your life to be meaningful?	3.338	0.894	66.8	5.481	0.000	4
7	How well are you able to concentrate?	3.614	0.938	72.3	9.494	0.000	2
11	Are you able to accept your body appearance?	3.719	0.939	74.4	11.093	0.000	1
19	How satisfied are youwithyourself?	3.533	0.949	70.7	8.143	0.000	3
26	How often do you have negativefeelings such as blue mood, despair, anxiety, depression?	3.024	3.095	60.5	0.112	0.911	6
	Sum	3.390	0.770	67.8	7.353	0.000	

Obviously as finding in Table (**4.6**) we can see that the concept about if they able to accept their body appearance has occupied the first rank in the last four weeks with weighted mean 74.4%, while finding out how often they have negative feelings such as blue mood, despair, anxiety, depression occupied the last rank with weighted mean 60.5%.

It indicated that the mean of the field “psychological domain” equals 3.390, 67.8%, Test-value = 7.353, and P-value=0.000 which is smaller than the level of significance. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researchers concluded that the level of the “psychological domain” was average.

The researcher believes that the vast majority of the study sample "Adults with hearing impairment " are very optimistic about life and can live in positivity, and they have no

adapt about their body and general appearance and their hearing problems has no effect on their external appearance they look the same of people who have the ability to talk , which is one of the highest levels of sensitivity they have and that they have great hope to improve their quality of life, face difficulties, and really wish to fully integrate into society And expressing themselves in a broad social framework through social participation in various social situations, and through creativity in their work, so they feel that they are an important part of this society and their lives have meaning and value, and because there are many institutions that give them the opportunity to participate in their activities to motivate them to move forward in improving The quality of their live, This is consistent with the study, (Nicholson, 2016) which considers that motivational participation early in the journey of the hearing impaired in community activities develops their capabilities in building themselves and improving the quality of their lives, and overcoming the obstacle of their body shape.

Question No. 26, which states: "How many times do you have negative feelings such as blue mood, despair, anxiety and depression?" Came on the last rank with a relative weight 60.5%. Although this question came in the last place, but its relative weight is statistically significant and high, which indicates The existence of some problems that hinder the study sample (the respondents) in life, and limit the quality in their lives, they are first and foremost human beings and they feel some negative feelings that healthy individuals feel in addition to the presence of disability that increases the severity of feelings of insomnia, mood, anxiety and depression This is consistent with a study

(Barker, et al., 2017). She talks about hearing loss and quality of life, and one of her most important questions was on her study sample. How do you determine the quality of life? And the results came that most of the study sample find that they suffer from many

psychological problems that accompany conditions of disability, such as frustration and anxiety, but they make continuous efforts to overcome challenges to continue enjoying life.

Distribution of Reponses in reference to Social related items (Social domain)

It illustrate the level of Quality of Life Among Adults with Hearing Impairment in the Gaza Governorates related to the items of Socialdomain which from the responses to the questionnaire WHOQOL-Breif-26 and analyzed using mean, standard deviation, Proportional mean, and one samples t-test, through analysis of dimensions and paragraphs, The findings are shown in Table (**4.7**).

Table (4.7) Distribution of Reponses in reference to Social related items (Social domain)

no	Item	Mean	Std. Deviation	% mean	Test value	*P-value (Sig.)	Rank
20	How satisfied are you with your personal relationships?	3.443	1.002	68.9	6.405	0.000	1
21	How satisfied are you with your sex life?	3.024	3.095	60.5	0.112	0.911	3
22	How satisfied are you with the support you get from your friends?	3.362	1.032	67.2	5.083	0.000	2
	Sum	3.262	1.248	65.2	3.041	0.003	

From the Table (4.7) we can see that Item no. (20)" How satisfied are you with your personal relationships?" occupied the first rank with percent weight 68.9%,and Item no. (21) " How satisfied are you with your sex life?" occupied the last rank with percent weight 60.5%, The researchers concludes that the respondents agreed to this item as they are enjoying a good relationship with their peers and spend much time with them through the social event and entertainment as they feel comfortable to communicate with people who are similar, when asking about their sexual life people who are married answered clearly that they have no problem while single tried to avoid to answer obviously as the norms in Gaza goes and feel shy they feel that there is no differences about the sexual condition between them and the other who can hear and speak.

Also the table indicated that the mean of the field “social domain” equals 3.262 65.2%, Test-value = 3.041, and P-value=0.003 which is smaller than the level of significance. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researchers concluded that the level of the “social domain” was average.

It is also clear from the previous table that question No. 22, which states: "How satisfied are you with support or assistance from friends?" Ranked first with a relative weight 68.9%, whereby the study sample gives the element of support and assistance from friends the greatest advantage in improving their conditions, and their ability to Developing themselves, and improving the quality of their lives, which may be positive if they are available in the form and good quality to advance their level and improve their capabilities, and that neglect and weak support from friends may bring negative results that limit the respondents' abilities to face life.

Hearing impairment has been associated with fewer social activities. However, hearing problems have also been associated with other comorbidities, which prevent more definitive conclusions about the unique role on adults wellbeing and their participation in life roles in the best way, (Andrade, et al., 2018) in a study Used longitudinal dataconducted to clarify the silent impact of hearing loss and explore the effects on depression and social activity restriction among older people reported that hearing loss reduces social activity, which is mediated by depression

Also This is consistent with the study of (Gagné, JP, & Young, J. 2019). Which dealt with the topic of the role of peers in supporting the hearing impaired, whose results confirmed the importance and vital support of the peers and friends for the hearing impaired in various social situations, which creates a kind of positivity for them, enhances their self-

abundance, brings out their creativity and improves their quality of life."Q21" ranked last, which states: "How satisfied are you with your sexual life: With a relative weight of 60.5%, despite being in the last rank, but its significance is significant, meaning that there is interest from the study sample in sexual life and at a high rate, being They do not consider themselves to differ from healthy people, especially since they are in their adolescence and this stage constitutes a triumph in the growth and sexual need and contact with the other sex, but despite that there are more important requirements that came in this schedule as the role of helping friends for the hearing impaired, as well as the level of personal relationships for them with their surroundings Internal and external, and making friends worse with the hearing impaired, or with healthy people.

Distribution of Reponses in reference to environmental related items (environmental domain)

It illustrate the level of Quality of Life Among Adults with Hearing Impairment in the Gaza Governorates related to the items of environmental domain which from the responses to the questionnaire WHOQOL-Breif-26 and analyzed using mean, standard deviation, Proportional mean, and one samples t-test, through analysis of dimensions and paragraphs, The findings are shown in Tables(4.8).

Table (4.8) Distribution of Reponses in reference to environmental related items (environmental domain)

Q	Item	Mean	Std. Deviation	% mean	Test value	P-value (Sig.)	Rank
8	How safe do youfeel in yourdaily life?	3.148	0.964	63.0	2.218	0.028	2
9	How healthyisyourphysicalenvironment?	3.090	0.942	61.8	1.393	0.165	3
12	Have youenough money to meetyourneeds?	2.690	0.961	53.8	-4.669	0.000	8
13	How available to youis the information thatyouneed in yourday-to-day life?	3.321	0.789	66.4	5.873	0.000	1
14	To whatextent do you have the opportunity for leisureactivities?	2.929	1.067	58.6	-0.970	0.333	6
23	How satisfied are youwith the conditions of your living place?	3.086	1.068	61.7	1.163	0.246	4
24	How satisfied are youwithyouraccess to health services?	2.824	1.064	56.5	-2.400	0.017	7
25	How satisfied are youwithyour transport?	2.933	1.051	58.7	-0.919	0.359	5
	Sum	3.001	0.599	60.0	0.014	0.989	

Table (4.8) shows that the availablity of day to day information needed to adultwithHI occupied the first rank with percent weight %66.4,while having enough money to meet their needs occupied the last rank with percent weight 53.8% ,The table showed that the mean of the field “environmental domain” equals 3.001, 60%, Test-value = 0.014, and P-value=0.989 which is greater than the level of significance. The sign of the test is positive, so the mean of this field Is no significantly than the hypothesized value 3. The researchers concluded that the level of the “environmental domain” was average.

The researcher believes that providing the information needed to the participants in their daily lives came first in the environmental field due to their desire to increase their awareness and keeping involved in the society they live thus enhancing their social role, and enhance their social participation, and to overcome the state of psychological deficiencies they have through integration and knowledge of the environmental milieu In

which they live, and to confirm their existence and coexist with the facts around them, and even participate in them.

This is consistent with the study of(Olusanya, et al., 2016). Which considers that one of the most important factors that can help the hearing impaired in overcoming the problems and obstacles of life and improving the quality of their life is to increase their knowledge about their conditions and the surrounded environment in which they live, which will contribute to their ability to integrate into their society, learn about its problems and contribute to finding solutions to them.

4.3 Inferential Analysis

Differences in perceptions of the QOL about health-related variables and demographic and socioeconomic characteristic's variables

To explore differences in perceptions of the QOL about health-related variables and demographic and socioeconomic characteristic's variables, the researcher conducted inferential analysis as clarified below in Table (4.9).

Table (4.9) Differences in perceptions of the QOL about health-related variables and demographic and socioeconomic characteristic's variables

	Mean	Std. Deviation	% mean	Test value	P-value (Sig.)	Rank
Physical domain	3.166	0.553	63.3	4.352	0.000	3
Psychological domain	3.390	0.770	67.8	7.353	0.000	1
Social domain	3.262	1.248	65.2	3.041	0.003	2
Environmental domain	3.001	0.599	60.0	0.014	0.989	4
Overall quality of life	3.205	0.627	64.1	4.734	0.000	

Obviously shown in Table (4.9) thatThe psychological domain occupied the first rank of the quality of life with percent weight (%67.8),and environmental domain occupied the last rank with percent weight (%60) and The mean of the field “the quality of life” equals 3.205 and weighted mean (64.1%), Test-value = 4.734, and P-value=0.000 which is less than the level of significance. The researcher concluded that the level of the “the quality of life” was average which consistent with (Al-Zboon, et al.,2014)study to identify the quality of life level of undergraduate students with disabilities at Jordanian universities which revealed that students with disabilities have a medium level of quality of life expressed in a total score of (3.48), meanwhile, the highest mean was for religious and spiritual domain (4.4) and the lowest mean was for cognitive/mental domain (2.93).also it revealed no statistically significant differences in all domains of the scale and the total score due to disability type or severity.

The researcher explained that HI has been associated with serious health comorbidities such as depression, anxiety, low self-esteem and insecurity, social isolation, stress, mental fatigue, cognitive decline and dementia and reduced mobility

the severity of HI and its impact that has on individuals' lives vary. These variations combined with numerous individual-specific factors (e.g., environment, available support, attitudes, preferences, or socioeconomic status) create unique circumstances for each person with hearing loss. these individual and their families Recognizing their circumstances thus understanding all of this can contribute in increasing their inner strength and they gained opportunity for empowering with surrounded families and friends who take action for managing their condition to maximizing quality of life , individuals with HI and members of their families have every opportunity to thrive. Self-Individual empowerment built with the foundation of awareness, education, and support in the recent years in GS , where individuals and families play a central role within a constellation of

other entities across the social-ecological model including health care providers, employers , advocacy organizations, communities, and the public all of which can contribute to their empowerment .

In addition to the fact that the root of the problem and the great obstacle facing adults with HI is due to a psychological factor which has a negative effect on quality of life they have in general , as well as the view of community members to them and shortage of providing care with such group , neglecting them could exacerbate their psychological problems and decrease their motivation to adapt with their peers in the community and left them with a real psychological problem that has been associated with them since grow up and get worse if they do not find the appropriate conditions to overcome them and effectively integrate them into society.This varies with the study of (Southall, et al,. 2019), which sees that the social domain ranked first among the study sample, outperforming other fields as the social environment determines the needs and constraints of a view People with special needs for quality of life.

4.3.1 QOL and gender:

Differences in perception about QOL (WHOQOL-Brief- 26) according to gender

Finding and statistical analyses as table (4.10) illustrate that there is no statistically significant between all domain but the physical domain has statistically significant with p-value 0.028 the differences were toward male which indicate better quality of life than the female.

Table (4.10) Differences in perception about QOL (WHOQOL-Brief- 26) according to gender

Domain	Gender	N	Mean	Std. Deviation	T	sig
Physical	Male	103	3.251	0.573	2.208	0.028
	Female	107	3.084	0.522		
Psychological	Male	103	3.409	0.579	0.349	0.728
	Female	107	3.372	0.919		
Social	Male	103	3.350	0.799	0.998	0.319
	Female	107	3.178	1.562		
Environmental	Male	103	3.028	0.586	0.647	0.518
	Female	107	2.974	0.613		
All	Male	103	3.259	0.495	1.243	0.215
	Female	107	3.152	0.730		

The table indicated That p-value (Sig.) of all domains as 0.215 The total quality of life is Larger than the level of significance $\alpha = 0.05$, This means there are no a statistically significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the total quality of life due to the gender ,and the researcher attributes that result to the fact that people with special needs suffer from a common problems that are not related mainly to the person’s gender, insofar as the disability itself affects, so the conditions for both are common in the psychological and social field, which generates similar problems to them, and creates a kind of shared loyalty between them regardless their gender .

This differs with the study of (le Roux T, et al,. 2017)Which sees different perception of the quality of life according to the gender variable, which came in favor of females at the expense of males and (Al-Zboon, et al.,2014)conducted a study to identify the quality of life level of undergraduate students with disabilities at Jordanian universities resulted that there are statistically significant differences in the total score due to gender in favor of females.

It is inconsistent with (Eva, et al,.2018) study thatconducted to show the Gender differences in improvement of older-person-specific quality of life after hearing-aid

fittingWhich suggested that there are gender differences in QOL improvement amongst people with age-related hearing loss after hearing-aid fitting.

Differences in perception about QOL (WHOQOL-Brief- 26) according to Age

Findings and statistical analyses as table (4.11) indicate no statistically significant differences (at α≤0.05 level) among respondents responses on the quality of life Attributed to age, the researcher usedOne-way ANOVA test.

Table (4.11) Differences in perception about QOL (WHOQOL-Brief- 26) according to Age

		Sum of Squares	df	Mean Square	F	Sig.
Physical	Between Groups	.602	3	.201	.654	.581
	Within Groups	63.245	206	.307		
	Total	63.847	209			
Psychological	Between Groups	2.178	3	.726	1.230	.300
	Within Groups	121.581	206	.590		
	Total	123.759	209			
social	Between Groups	2.118	3	.706	.450	.718
	Within Groups	323.366	206	1.570		
	Total	325.484	209			
Environmental	Between Groups	.780	3	.260	.721	.540
	Within Groups	74.236	206	.360		
	Total	75.016	209			
All	Between Groups	1.113	3	.371	.944	.420
	Within Groups	80.973	206	.393		
	Total	82.086	209			

Finding and statistical analyses as table (4.11) indicated that that total quality of life among and within age groups of participant is Larger than the level of significance α = 0.05, This means there are no a statistically significant differences (at α ≤ 0.05 level) (f= .944, sig= .420)among participants on the total quality of life due to age , and the researcher attributes this result only to the circumstances surrounding the social and psychological environment that surrounds people with special needs and for a long time is almost one, without denial the degree of cognition and awareness between age groups despite many efforts made to improve the quality of life for people with special needs at the official and popular levels, and civil society institutions, but all these efforts did not rise to change reality Significantly for people who live under the same circumstances in Gaza which still

suffering from occupation and siege in the first level of other challenges and difficulties so people with special needs must be affected accordingly , the results were not related to the date of birth but to the surrounding circumstances and how they adapt in the society no matter how old they are.

(Brewster, et al,.2018) conducted a study in Age-Related Hearing Loss and Its Association with Depression in Later Life which reported that ARHL was associated with increased depressive symptoms in older adults. Future studies should investigate whether treatment of ARHL may be an effective prevention and/or therapeutic strategy for depressive symptoms that could enhance for better quality of life

Differences in perception about QOL (WHOQOL-Brief- 26) according to Education level

One-way ANOVA for the quality of life Attributed to education level showed That there are no statistically significant differences (at $\alpha \le 0.05$ level) among participants on the total quality of life due to the their level of education.

Table (4.12) Differences in perception about QOL (WHOQOL-Brief- 26) according to Education level

Domains		Sum of Squares	df	Mean Square	F	Sig.
Physical	Between Groups	2.070	4	.517	1.717	.148
	Within Groups	61.777	205	.301		
	Total	63.847	209			
Psychological	Between Groups	4.521	4	1.130	1.943	.105
	Within Groups	119.238	205	.582		
	Total	123.759	209			
Social	Between Groups	10.579	4	2.645	1.722	.146
	Within Groups	314.905	205	1.536		
	Total	325.484	209			
Environmental	Between Groups	1.922	4	.480	1.347	.254
	Within Groups	73.094	205	.357		
	Total	75.016	209			
All	Between Groups	3.285	4	.821	2.136	.078
	Within Groups	78.801	205	.384		
	Total	82.086	209			

According to table (4.12) indicated that the total quality of life is Larger than the level of significance α = 0.05 (f= 2.136, sig= .078), This means there are no statistically significant differences (at α ≤ 0.05 level) among participants on the total quality of life due to the their level of education, and The researcher attributes this to the nature of the force majeure and the extraordinary conditions experienced by people with special needs, in which most of them participate in the level of their personal and social lives, which ultimately leads to one output that is not affected by the educational level as much as it is affected by social conditions and the obstacles that the participants faces. This is consistent with a study (Bonetti, et al., 2018). Applied to the hearing impaired in Croatia, which holds that the educational level does not affect much the quality of life for the hearing impaired in so far as it affects the surrounding and social conditions.

Differences in perception about QOL (WHOQOL-Brief- 26) according to marital status

Findings and statistical analyses as table (4.13) indicate no statistically significant differences (at α ≤ 0.05 level) among participants on the quality of life Attributed to marital status, the researcher used One-way ANOVA test.

Table (4.13) Differences in perception about QOL (WHOQOL-Brief- 26) according to marital status

		Sum of Squares	df	Mean Square	F	Sig.
Physical	Between Groups	.995	3	.332	1.087	.356
	Within Groups	62.852	206	.305		
	Total	63.847	209			
Psychological	Between Groups	.578	3	.193	.322	.809
	Within Groups	123.181	206	.598		
	Total	123.759	209			
Social	Between Groups	3.420	3	1.140	.729	.536
	Within Groups	322.064	206	1.563		
	Total	325.484	209			
Environmental	Between Groups	2.269	3	.756	2.142	.096
	Within Groups	72.746	206	.353		
	Total	75.016	209			
All	Between Groups	.499	3	.166	.420	.739
	Within Groups	81.587	206	.396		
	Total	82.086	209			

According to the table (4.13) there are no statistically significant differences (at $\alpha \leq 0.05$ level) between total quality of life domain and Marital status among participants (f= .420, Sig= .739) The total quality of life is Larger than the level of significance $\alpha = 0.05$, and the researcher attributes this to the nature of the difficult circumstances and the extraordinary conditions experienced by adults with special needs in general and adults with hearing impairment in particular as they are the productive generation of the society, in which most of them participate in the level of their personal and social lives, which ultimately leads to one output that is not affected by the social condition as much as it is affected by social circumstances and the obstacles in the Gazen society that they face in their daily life which are many such as Social barriers: lack of community support, social norms and group conformity Also Cultural barriers: tradition, culture, customs, religion In addition to Economic barriers: lack of property rights, corruption, fiscal infrastructure And Political barriers: ideology, values.

Differences in perception about QOL (WHOQOL-Brief- 26) according to income

Findings and statistical analyses as table (4.14) figured out if there are statistical significant differences (at $\alpha \leq 0.05$ level) among participants on the quality of life Attributed to the average household income, the researcher used One-way ANOVA test.

Table (4.14) Differences in perception about QOL (WHOQOL-Brief- 26) according to income

Domains		Sum of Squares	Df	Mean Square	F	Sig.
Physical	Between Groups	1.813	3	.604	2.007	.114
	Within Groups	62.034	206	.301		
	Total	63.847	209			
Psychological	Between Groups	2.126	3	.709	1.200	.311
	Within Groups	121.632	206	.590		
	Total	123.759	209			
Social	Between Groups	5.379	3	1.793	1.154	.329
	Within Groups	320.106	206	1.554		
	Total	325.484	209			
Environmental	Between Groups	7.526	3	2.509	7.658	.000
	Within Groups	67.489	206	.328		
	Total	75.016	209			
All	Between Groups	2.417	3	.806	2.083	.104
	Within Groups	79.670	206	.387		
	Total	82.086	209			

According to the table (4.14) there are no statistically significant differences (at $\alpha \leq 0.05$level) among participants on the total quality of life due to the average household income (f= 2.083, Sig= .104) .

The researcher attributes this to the nature of the hard circumstances people live in Gaza in general , and the extraordinary conditions experienced by people with special needs, in which most of them participate in the level of their personal and social lives, which ultimately leads to one output that is not affected by the average family income, and if this variable varies from one case to another, if the family income increases It increases the chances of providing the basic needs for people with special needs, unlike families with low incomes, even if it does not affect the size of social conditions and the obstacles that they faces .Suffering is deepening in Palestine as its economy continues to deteriorate and rising poverty levels and increasing environmental degradation exact a heavy toll, according to the latest United Nations Conference on Trade and Development (UNCTAD) report on its assistance to the Palestinian people.About one in three Palestinians in the labour market is unemployed. In Gaza, has high level of unemployment as well as the increasing poverty level, even though most of the people classified as poor receive aid from the government and international organizations.

Gaza is increasingly becoming unlivable under the severe and worsening socioeconomic conditions. In 2018, its local economy contracted by 7%, leading to a 10% decline in its per capita income (UNCTAD report, 2019).

Differences in perception about QOL (WHOQOL-Brief- 26) according to the level of family understanding and interaction?

To figure out if there are statistical significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the quality of life Attributed to the level of family understanding and interaction with them, the researcher used One-way ANOVA test

Table (4.15) Differences in perception about QOL (WHOQOL-Brief- 26) according to the level of family understanding and interaction

		Sum of Squares	Df	Mean Square	F	Sig.
Physical	Between Groups	9.119	3	3.040	11.441	.000
	Within Groups	54.728	206	.266		
	Total	63.847	209			
Psychological	Between Groups	5.626	3	1.875	3.270	.022
	Within Groups	118.132	206	.573		
	Total	123.759	209			
Social	Between Groups	4.359	3	1.453	.932	.426
	Within Groups	321.125	206	1.559		
	Total	325.484	209			
Environmental	Between Groups	2.387	3	.796	2.257	.083
	Within Groups	72.628	206	.353		
	Total	75.016	209			
All	Between Groups	4.955	3	1.652	4.411	.005
	Within Groups	77.131	206	.374		
	Total	82.086	209			

According to the table (4.15) there are statistically significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the total quality of lifedue to the level of family understanding and interaction (f= 4.411, Sig= .005) The total quality of life is Less than the level of significance, and the Table (4.16) shows the source of the differences of the total quality of life. The source of these differences was between the weak and medium, and a rise in favor of the middle, and the high, and the researcher attributes this because the family's understanding and interacting with their hearing impaired increases the degree of confidence of the hearing impaired, it's clear that the family is the first and small incubator for the hearing impaired and from them they will come out to the big incubator which is the society and the family that acquires social customs and is primarily responsible for the extent to which the hearing impaired satisfy their needs and partial integration into society, leading to total integration into society.

Studies of children with hearing disabilities have indicated (10 to 20%) Of them, they are less mature in psychological and social terms compared to their peers who can hear.

Studies have shown that a hearing impaired individual who comes from a family with hearing impairment is usually Socially more mature compared to those who come from a family without hearing disability because individuals whose parents have a hearing

disability have better opportunities to develop their social relationships with the hearing-impaired community which increases their adaptation and experience and helps to Understand and accept others better, both within and outside the family, and are distinguished by their high confidence and they respect their self-esteem and have control over their lives, thus have opportunity to increase their quality of life (Tohamy, et al., 2006).

One-way ANOVA test (post hoc – scheffe)was conducted to examine whether there were statistically significant differences among the level of family understanding and interaction

Table (4.16) The source of the differences the total quality of life due to the level of family understanding and interaction .

Dependent Variable			Mean Difference (I-J)	Sig.
Physical	non	Weak	0.64881	0.146
		middle	-0.02222	1.000
		High	0.08896	0.990
	weak	Non	-0.64881	0.146
		middle	-.67103-*	0.000
		High	-.55985-*	0.000
	middle	Non	0.02222	1.000
		Weak	.67103*	0.000
		High	0.11118	0.619
	high	Non	-0.08896	0.990
		Weak	.55985*	0.000
		middle	-0.11118	0.619
Psychological	non	Weak	0.25694	0.941
		middle	-0.26411	0.925
		High	-0.19773	0.968
	weak	Non	-0.25694	0.941
		middle	-.52105-*	0.025
		High	-0.45467	0.114
	middle	Non	0.26411	0.925
		Weak	.52105*	0.025
		High	0.06638	0.961
	high	Non	0.19773	0.968
		Weak	0.45467	0.114
		Middle	-0.06638	0.961
All	non	Weak	0.36793	0.744
		middle	-0.12510	0.983
		High	-0.07672	0.996
	weak	Non	-0.36793	0.744
		middle	-.49303-*	0.005
		High	-.44465-*	0.034
	middle	Non	0.12510	0.983
		Weak	.49303*	0.005
		High	0.04838	0.971
	high	Non	0.07672	0.996
		Weak	.44465*	0.034
		middle	-0.04838	0.971

As shown in Table (4.16),

A one-way ANOVA test was conducted to examine whether there were statistically significant differences among the overall level of family understanding and interaction. The results have revealed a statistically significant difference between overall score of physical groups, with (F= 11.441, P value= 0.000). Scheffe post hoc test revealed that there is a statistically significant difference between the weak level of family understanding and interaction and between middle level with a score of (mean difference -.67103) and with high level of family understanding and interaction with a score of (mean difference-.55985).

Additionally, the results have revealed a statistically significant difference between overall score of psychological groups , with (F= 3.270, P value= 0.022), A Scheffe post hoc test revealed that there is a statistically significant difference in overall perceived response score between the weak level of family understanding and interaction and between middle level of family understanding and interaction with a score of (mean difference -.52105)

Finally, the results of one-way ANOVA test have revealed a statistically significant difference among the overall dependent variable groups in relation to the level of family understanding and interaction between groups, with (F= 4.411, P value= 0.005). Scheffe post hoc tests revealed that there is a statistically significant difference the weak level of family understanding and interaction and between middle level with a score of (mean difference -.49303) and with high level of family understanding and interaction with a score of (mean difference -.44465).

Differences in perception about QOL (WHOQOL-Brief- 26) according to hereditary

To figure out if there are statistical significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the quality of life Attributed to the hearing problem hereditary, the researcher used a test. One-way ANOVA .

Table (4.17) Differences in perception about QOL (WHOQOL-Brief- 26) according to hereditary

Domains	inherited	N	Mean	Std. Deviation	T	Sig
Physical score	no	89	3.165	0.508	-0.015	0.988
	yes	121	3.166	0.586		
Psychological score	no	89	3.425	0.558	0.558	0.577
	yes	121	3.365	0.895		
Social score	no	89	3.382	0.750	1.198	0.232
	yes	121	3.174	1.511		
Environmental score	no	89	2.966	0.524	-0.711	0.478
	yes	121	3.026	0.650		
All	no	89	3.235	0.459	0.593	0.554
	yes	121	3.183	0.727		

The p-value (Sig.) The total quality of life is Larger than the level of significance $\alpha = 0.05$, This means there are no statistically significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the total quality of life due to the hearing problem hereditary,The researcher attributes this to the nature of the hard circumstances and the extraordinary conditions experienced by people with special needs, in which most of them participate in the level of their personal and social lives, which ultimately leads to one output that is not affected by the nature of the hearing problem is it hereditary or acquired for the study sample as it is affected by social conditions And the obstacles faces a adults with hearing impairments .

As we lack the means and modern and accurate clinical investigation of people with hearing problems those people live their life with coping on their disability regardless of the exact cause of it .

Humana Press, (2009), clarified in chapter Congenital hearing loss (sensorineural and conductive) that Screening is considered the cornerstone of effective treatment and Genetic testing is proving increasingly useful in the evaluation of congenital sensorineural hearing loss. While Cochlear implantation of children with bilateral profound sensorineural hearing loss yields the best long-term results, with the majority of children entering a mainstream grade school. Children with atresia can be rehabilitated with bone conducting hearing aids.

Differences in perception about QOL (WHOQOL-Brief- 26) according to other disability

To figure out if there are statistical significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the quality of life Attributed to other disability that accompanies hearing impairment, the researcher used a test. One-way ANOVA.

Table (4.18) Differences in perception about QOL (WHOQOL-Brief- 26) according to other disability

Domains		N	Mean	Std. Deviation	T	Sig
Physical score	No	172	3.280	0.517	7.057	0.000
	Yes	38	2.650	0.394		
Psychological score	No	172	3.477	0.791	3.551	0.000
	Yes	38	3.000	0.510		
Social score	No	172	3.341	1.329	1.97	0.050
	Yes	38	2.904	0.688		
Environmental score	No	172	3.054	0.610	2.781	0.006
	Yes	38	2.760	0.487		
All	No	172	3.288	0.638	4.254	0.000
	Yes	38	2.828	0.399		

The p-value (Sig.) The total quality of life is less than the level of significance $\alpha = 0.05$, This means there are statistically significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the total quality of life due to any other disability that accompanies hearing impairment, the source of the differences the total quality of lifeis to

answer no, and the researcher attributes that result, but that the problem of disability is of a psychological nature in the first place, and that the presence of a disability accompanying the disability of hearing is sure to exacerbate the degree of frustration and psychological anxiety, and will make it difficult for the opportunity to participate and integrate the person in the surrounding and his society, who suffers from psychological and social problems and obstacles with one disability

Differences in perception about QOL (WHOQOL-Brief- 26) according to using hearing aids

To figure out if there are statistical significant differences (at $\alpha \leq 0.05$ level) among respondent's responses on the quality of life Attributed to using hearing aids, the researcher used a test. One-way ANOVA.

Table (4.19) Differences in perception about QOL (WHOQOL-Brief- 26) according to using hearing aids

Domains		N	Mean	Std. Deviation	T	Sig
Physica score l	No	159	3.225	0.545	2.757	0.006
	Yes	51	2.983	0.542		
Psychological score	No	159	3.476	0.824	2.89	0.004
	Yes	51	3.124	0.482		
Social score	No	159	3.340	1.375	1.599	0.111
	Yes	51	3.020	0.678		
Environmental score	No	159	3.049	0.627	2.072	0.039
	Yes	51	2.850	0.477		
All	No	159	3.272	0.670	2.8	0.006
	Yes	51	2.994	0.404		

The p-value (Sig.) The total quality of life is less than the level of significance $\alpha = 0.05$, This means there are statistically significant differences (at $\alpha \leq 0.05$ level) among participant on the total quality of life due to headset, the source of the differences the total quality of life is to answer no, The researcher attributes this to the availability of head reputation that increases the percentage of hearing among the hearing impaired, and

increases the chance of their interaction with their family and social surroundings, which increases their degrees of self-confidence and their capabilities, and increases their interaction at the personal, social level, and participation with others in various types of activities, and increases From the state of psychological stability to the hearing impaired and the enjoyment of life, in a positive way and the opposite of the hearing impaired who do not have a headset, which reduces the opportunity for communication and increases the psychological and social burden on them, and this does not mean that the use of the headset is not accompanied by many problems, according to the vision of the study sample, many headphones It brings health problems like continuous tinnitus, and disconnects

This is in line with the(Davis, 2016) study, which aims to know the response of hearing aids users to hearing devices' problems, which showed that some members suffering from the associated problems due tousing hearing devices for long periods such as tinnitus and otitis, which recommended working on developing strategies and policies to create a state of adaptation and attention to" hearing health".

Another study conducted by (Bamini.G,et al,. 2012) to determine the prospective association between measured hearing impairment, self-reported hearing handicap and hearing aid use with quality of life reported that older adults with self-perceived hearing handicap constitute a potential risk group for overall deterioration in quality of life, while hearing aid use could help improve the well-being of hearing impaired adults.

Clinical practice guideline about Tinnitus Conducted by Tunkel, D. E. t al., 2014 which focus on tinnitus that is both bothersome and persistent (lasting 6 months or longer) on adults (18 years and older) with primary tinnitus that is persistent and bothersome , which often negatively affects the patient's quality of life, The purpose of this guideline is to provide evidence- based recommendations for clinicians managing patients with tinnitus, This guideline provides clinicians with a logical framework to improve patient care and

mitigate the personal and social effects of persistent, bothersome tinnitus. It will discuss the evaluation of patients with tinnitus, including selection and timing of diagnostic testing and specialty referral to identify potential underlying treatable pathology.

Differences in perception about QOL (WHOQOL-Brief- 26) according to the commitment to health follow up

To figure out if there are no statistical significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the quality of life Attributed to commitment to health follow-up the researcher used a test. One-way ANOVA and Table (4.20) show the following results.

Table (4.20) Result: t-test for the quality of life Attributed to the commit to health follow-up

Domains		N	Mean	Std. Deviation	T	Sig
Physical	No	155	3.150	0.583	-0.693	0.489
	Yes	55	3.210	0.457		
Psychological	No	155	3.395	0.850	0.131	0.896
	Yes	55	3.379	0.479		
Social	No	155	3.267	1.388	0.93	0.903
	Yes	55	3.248	0.732		
Environmental	No	155	2.948	0.596	-2.172	0.031
	Yes	55	3.150	0.589		
All	No	155	3.190	0.684	-0.58	0.536
	Yes	55	3.247	0.428		

The p-value (Sig.) The total quality of life is Larger than the level of significance α=0.05, This means there are no statistically significant differences (at $\alpha \leq 0.05$ level) among respondents responses on the total quality of life due to commit to health follow-up, and The researcher attributes this to the nature of the hard circumstances , which is filled with lack of attention at the governmental and non-governmental levels, and even at the level of individuals in dealing with the hearing impaired, which resulted in an unusual situation experienced by people with special needs, in which most of them participate in the level of their personal and social lives, which lead In the end, for one output that is not affected by the commitment to health follow-up, if this variable varies from case to case, if increased

attention to health follow-up increases the chances of providing health needs for people with special needs unlike cases that do not have health care, which creates health problems accompanying social problems And the psychological suffering of those who are already hearing impaired.

Differences in perception about QOL (WHOQOL-Brief- 26) according to other health problems.

Findings and statistical analyses astable (4.21) indicate that there areno statistical significant differences (at α≤0.05 level) among participants on the quality of life Attributedto suffering from other health problems, the researcher used T-test.

Table (4.21) Differences in perception about QOL (WHOQOL-Brief- 26) according to suffering from other health problems.

		N	Mean	Std. Deviation	T	Sig
Physical	No	88	3.214	0.503		
	Yes	122	3.131	0.585	1.076	0.283
Psychological	No	88	3.487	0.957		
	Yes	122	3.321	0.593	1.545	0.124
Social	No	88	3.428	1.690		
	Yes	122	3.142	0.776	1.645	0.101
Environmental	No	88	2.970	0.561		
	Yes	122	3.023	0.627	-0.624	0.533
All	No	88	3.275	0.747		
	Yes	122	3.154	0.521	1.379	0.169

According to table (4.21) there are no statistically significant differences between total Brief -26 domains and suffering from another health problem (t=1.379.sig=0.169) as indicated by t-test, that mean the total quality of life is Larger than the level of significance α = 0.05.

The researcher attributes this to the nature of the environment surrounding the study sample, which produces special social and psychological conditions, in which most people with special needs participate, in addition to the lack of awareness necessary to create the ideal conditions and provide the necessary capabilities to deal with people with special needs, so it is considered that the presence or absence of health problems is not a decisive

factor of the quality of life due to the study sample insofar as other factors, such as the surrounding personal and social circumstances.

4.4 Qualitative analyses

The Interview:

The researcher has noticed that adults with HI do not represent a homogeneous group, as each person has his own individual characteristics, however the sources of difference depends on the type and severity of disability, the age of the individual when it occurs, the degree of hearing disability and how it can be used, the parental hearing condition, the cause of disability, the surrounded environment and the social and economic nature of the family… Etc., and hearing disability has a noticeable effect on the different developmental characteristics of the individual with HI because the stages of growth are interconnected and interrelated.

Through the interview, the researcher showed that hearing difficulties appear in every generation, but they are more prevalent among the elderly. About -30% of the 65 and older generation suffer from hearing difficulties to a certain degree, and poor hearing may harm the quality of life in various fields, such as difficulty in participating in a conversation with friends and family members or difficulties in phone calls. Even when visiting doctors, there are difficulties with understanding their instructions. Likewise, those who suffer from hearing impairment have hearing difficulties and understanding what is being said, and thus their ability to respond to the environment may not went normal accordingly. This condition may harm performance, cause embarrassment, sadness, loneliness, harm to self-confidence and safety.

As for the causes of HI, the respondents' answers were various about the causes of their hearing impairment, some of them had a hearing loss for genetic reasons, and some had a

hearing loss as a result of having a specific disease, or being exposed to trauma, and some of them because of age, and the severity of hearing impairment in the interview sample has ranged between mild hearing loss and profound deafness, and some of them are born while suffering from this condition, and this leads to many problems and various obstacles to their quality of life. The interview sample was put together that any problems in the ear cause a psychological harm to the person, not only Psychological, but hearing is also related to a number of other senses. As the researcher using sign language when interviewing a male participant, 34 years old he explained "I usually experience a bad feeling of being stranger when I'm being with my college in capabilities development collage and theytaking to each other and laughing and I have no idea why are they laughing , I thought they mock me , I prefer sitting alone when we have lunch break".

Negative attitudes and beliefs about hearing loss can originate both internally arising from the beliefs and attitudes of the individual experiencing the hearing impairment and externally produced by the beliefs and attitudes held by various social connections, including family members, friends, health care professionals, employers and coworkers, the general public, and the media. When considering how hearing impairment may affect self-perception and social identity, many individuals cite fears of feeling or being perceived as old, frail, less capable, vulnerable, uninteresting, unattractive, or less desirable or as having a disability or cognitive impairment

They see themselves as more likely to suffer from emotional, behavioral and adaptive disorders with others, which leads to symptoms such as anxiety, depression, and confusion. Hearing problems sometimes leads to social isolation and depression as a result of ignorance and lack of awareness in local community and individuals without disability . and for some people, tinnitus sometimes leads to stress and anxiety, This affects sleep patterns and focus, and in turn leads to serious mental problems as anxiety and depression,

and some see that theyare paying a great effort throughout the day to hear others, which increases the number of anger episodes and increasing physical and psychological stress, and this feeling has prompted many of them to avoid social activities even with their loved ones and their family, a 21 years old male hearing impaired explained to the researcher "I suffer from insomnia I wake up from sleep and remain inactive all the day I can't focus during the day I feel discomfort when my teacher ask me to pay attention in the class" thus sleeping disturbances resulted from HI affects their performance during daily activities however Hearing impairment in some of them also caused some damage to their memory and the ability to learn and perform the required functions.

Perhaps among the most important challenges and problems facing the hearing impaired, as it appear in the interview sample, psychological problems appear in the hearing impaired, the most important of which are withdrawal tendencies and the inability to interact well with those around, as well as the economic problems that are represented by rehabilitation, medical treatment and the purchase of hearing devices and tools, which exposes the family to financial problems. It also needs a special kind of education and schools prepared to such disability with special means of education, which increase the burden on the family.

As well as the lack of specialized schools to deal with the hearing impaired, as there is only one secondary school for the hearing impaired in the Gaza Strip.

The hearing impaired also suffer from social problems such as the inability to adapt to the social environment around them and their social maturity, in addition to the personal problems of the hearing impaired, which differ from one person to another according to the interview sample,as well as problems related to training and rehabilitation, and problems in obtaining and enjoying recreational activities. A female 41 years old married to one of

hearing impaired explained while smiling" I love myself I don’t feel shame I have a better taste of fashion than you I can do your hair in my salon when you graduate I can deal with my customers and they are satisfied of my perfect makeup and hair styles I do for them "so she is an independent woman who cannot give up with her disability as she has an understanding husband who can share communication as they both are hearing impaired, To enjoy the degrees of love and affection for those around them can positively affect their behavior and motivate them to participate in work roles in the community.

Through the interview, the interview sample sees that what is required to alleviate the severity of disability and improve the quality of life must increase awareness in society for the hearing impaired and respect them as people with dignity and have social rights as well as have the right to work to the maximum of their capabilities in order to achieve professional satisfaction and fulfill their role in society as a productive citizen who can be self-reliant and taking care of their own affairs and interests, and to adopt a rehabilitation policy that aims at creation, construction and renewal in order to benefit from the capabilities of the hearing-impaired and to help them regainingtheir ability to compete and produce, working to develop the individual's self-confidence, independence, and live in a family that accepts their disability without discrimination between other members of the family and adapts to their circumstances as well as his adaptation to it, which help reemerging the hearing impaired to society and within his family after removing all obstacles that might been raised from his hearing impairment.

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

People with hearing impairment contribute a non-deniable number in each society around the world including Palestine. Living with hearing impaired is easy as long as we love them and find the way to communicate , there are about two million people live in GSof whom nearly one thousandare with hearing impairment, people with HI face discrimination at home , work and school they experience higher level of unemployment, feeling of isolation , neglecting and often , depression .

Dimension of QOL among Adults with HI reduced, per reduction, improvement of life's dimension is the key to achieve better coping with such health condition.

This study has proven that HI has a wide effect on people's ability to communicate , function independently in very field of their life as it appear in affecting their psychological and social wellbeing .reemerging people with and without hearing impairment together should be improved to avoid feelings of discrimination which lead to negative results thus to decreasing in QOL.

This study has used a quantitative measure that providing an essential assessment of the QOL among adults with HI and gives powerful and multidimensional concepts about QOL using WHOQOL-Brief 26 question to explore the four domains of QOL it also explore the differences in perception of adults with hearing impairment for QOL about demographics and health profile variables , additionally to qualitative method which provided a deep digging of the real stories and circumstances they live in and it provided a detailed and widespread understanding of how hearing impairment condition affects their QOL.

It is possible to conclude that measuring the hearing aid benefit with the self-assessment questionnaires will assist the clinicians in making judgments about the areas in which a hearing impaired is experiencing more difficulty in everyday listening environment and in revising the possible technologies.

The findings demonstrated that participants with hearing impairments had a medium level of perception about their QOL. This study identified common problems and challenges encountered by adults with hearing impairments which now are not assessed regularly in Gaza society. The study has proved a wide effects on self-confidants, social roles and ability to function independently in every field of life, it affect the psychological side in the first place in addition to mental ,and social wellbeing.

This study showed on assessing the quality of life among adults with hearing impairment in the Gaza governorates a relatively weakQOL ,while in assessing health satisfaction the sample showed between satisfied and very satisfied with their health together constitute 62.3% representing an average percentage of satisfaction with their health as they not consider their disability as a health problem than it’s an a adaptive condition , Additionally it indicated a high percentage in the psychological domain with a in exploring their ability to accept their physical appearance relative weight (74.4%), and experiencing negative emotions such as blue mood, despair, anxiety and depression with a relative weight (60.5%), Hearing impaired suffer from emotional, behavioral and adaptive problems with others, which leads to symptoms such as anxiety, depression and confusion, and hearing loss and ear problems such as tinnitus have a negative impact on my mental health, as hearing loss sometimes leads to feeling of less capable, vulnerable, uninteresting, unattractive, or less desirable or as having a disability or cognitive impairment thus exaggerate the social isolation and depression. However, the physical domain indicated high and a medium relative weight (70%), (49.1%) to be able to roam independently and

the need for medical treatment to improve their lives respectively , this attract the attention to pay more interest on their wellbeing and giving them the opportunity to express their ability in a productive way in the society they live in .while in first ranking psychological domain with a relative weight (74.4%) also the social domain when exploring their need for friend's support from friends has a high percentage with a relative weight (75.4%), and their satisfaction of sexual situations, especially because they are in their adolescence stage, with a relative weight 71.4% and the environmental domain has an average percentage when exploring the a availability information needed in their daily lives with a relative weight (66.4%), and in exploring the availability of money for the hearing impaired to afford their needs with a relative weight (53.8%).

The total QOL mean score was (64.1%), meaning that most of the respondents had a medium perception level of QOL and the overall mean percentage of the QOL domain scores ranged from (60%) to (67.8%).

Significant differences were explored concerning the total quality of life due to the variables in the family's level of understanding and interaction, and the variable of the presence of another disability associated with hearing impairment, as well as the variable of using hearing aids such as headphones. In contrast, there were no statistically significant differences between the participant's responses on the total quality of life due to the other variables.

It could be explained that hearing difficulties appear in every generation, but their prevalence increases among the elderly however, there were many causes of hearing loss for hereditary reasons, or as a result of having a specific disease, exposure to trauma, and the severity of hearing impairment ranged from mild hearing loss to profound hearing loss.

5.2 Recommendations

In light of the findings of the study, the study recommends the following:

Generalrecommendation:

1. Bridging the gaps between audiology services and the community, by enhancingfuture studies for investigating the possible role of community health workers in identifying and screening for hearing loss, as well as implementing intensive community-based rehabilitation programs.
2. Building a bridge with Advocacy organizations at the national and local levels which play an important role in supporting those affected by HI , and a continuous attempts to make partnerships with national advocacy organization which dedicated to improving communication access for people with HI through education, support, and public policy and advocacy work and implement such procedures in our local level in GS's schools ,universities and organizations by organizing meetings, provide psychosocial support, make connections among people who have HI, and offer education related to living with HI and assistive services and technologies.
3. Increasing attention on the various community institutions to such chronic health condition of the HI and providing supportin all its forms and dimensions to hearing impaired by enhancing self-confidence and leading them to the best level of emerging and communication in order achieving better quality of their life.
4. Improving communication and interaction relations, and based on mutual trust between the institution and the disabled, represented in providing psychological, social, economic, recreational and other types of support at all times and in the most difficult and worst circumstances by enhancing Community institutions to provide all necessary support to the hearing impaired and provide the medical treatment they need and working to rehabilitate them and develop their capabilities in how to face the

challenges they face during life, leading to marriage, and to provide conditions to preserve, strengthen and maintain the marital relationship, leading to them towards a feeling of comfort, happiness and satisfaction with it to reach a better quality

Future research studiesrecommendation:

1. Conducting Studies in the resources and services offered to individuals with HI through the local advocacy organizations , it certainly provide value by knowing effectively and efficacy of available resources in GS.
2. Conducting similar studies focusing on the factors affecting the quality of life with different dimensions includes individuals with hearing impairment in particular and other disabilities in general with focusing on the adults stage of life and their needs.
3. Establishing community based- support to adults with HI to promote resilience and provide resources for individuals with HI and their families for example setting up community based sensory support centers to deliver support services including hearing aids fitting , mobility training ,and installation of smoke alarm systems and door lights as well as provision of other assistive technologies such as telephones and alarm clocks, and instruction on how to use hearing aids and hearing assistive technologies
4. Conducting studies which focus on peer-support groups designed for individuals with HI and their families, to know how prevalent or active such groups are throughout the GS or in Palestine by provide a widely discussion about the possible benefits and limitations of peer-support groups, including Internet- and phone-based groups which can provide opportunities for individuals to connect with others who have HI in order to share concerns, experiences, and strategies for coping with challenges in daily life, and these groups can foster resilience and restore social identity.
5. Developing the roles of ministries and social institutions towards securing job opportunities for the disabled in order to secure the most basic necessities of life, and

access to job security and personal safety, and adopting Officials and decision-makers process of supporting hearing disabled as it is a national and moral duty and work to harness all the capabilities available to the disabled, to identify the most accurate problems and obstacles they face in their lives, and to work to overcome them, leading the hearing-impaired to a sense of contentment, happiness and comfort, and to achieve quality of life

6. Providing all means and capabilities for the hearing-impaired workers, and what is related to the surrounding conditions and the appropriate work environment that give rise to comfort and reassurance, in order to reach them to a sense of belonging to work and love of work and to the feeling that they are more achieving professional quality.
7. Developing coping mechanisms and resilience among employees with hearing loss as its a crucial steps to eliminating discrimination, promoting broader support in the workplace, and enabling HI employees to remain in the workforce longer.
8. Activating the role of specialists in this field and non-specialists in order to contribute positively to creating the highest level of quality of life for the hearing impaired.

References

Al-Zboon, Et al.,2014” Quality of life of students with disabilities attending Jordanian universities”. International Journal of Special Education. 29(3):1-8

Andrade, C. C., Pereira, C. R., & Silva, P. A. D. (2018). The silent impact of hearing loss: Using longitudinal data to explore the effects on depression and social activity restriction among older people. *Ageing and Society*, *38*(12), 2468–2489. https://doi.org/10.1017/S0144686X17000708

Arah, O. A., Klazinga, N. S., Delnoij, D. M. J., Ten Asbroek, A. H. A., &Custers, T. (2003). Conceptual frameworks for health systems performance: a quest for effectiveness, quality, and improvement. *International Journal for Quality in Health Care*, *15*(5), 377-398.

BaminiGopinatha, JulieSchneiderb, LouiseHicksoncd, Catherine M.McMahonde, GeorgeBurlutskya,Stephen R.Leederb&PaulMitchell. (2012). Hearing handicap, rather than measured hearing impairment, predicts poorer quality of life over 10 years in older adults.Received 2 February 2012, Revised 20 March 2012, Accepted 21 March 2012, Available online 19 April 2012.

Barker, A. B., Leighton, P., & Ferguson, M. A. (2017, May 4). Coping together with hearing loss: a qualitative meta-synthesis of the psychosocial experiences of people with hearing loss and their communication partners. *International Journal of Audiology*. Taylor and Francis Ltd. https://doi.org/10.1080/14992027.2017.1286695

Beechey, T., Buchholz, J. M., &Keidser, G. (2020). Hearing aid amplification reduces communication effort of people with hearing impairment and their conversation partners. *Journal of Speech, Language, and Hearing Research*, *63*(4), 1299–1311. https://doi.org/10.1044/2020_JSLHR-19-00350

Bennett, R. J., Laplante-Lévesque, A., &Eikelboom, R. H. (2019). How Do Hearing Aid Owners Respond to Hearing Aid Problems? *Ear and Hearing*, *40*(1), 77–87. https://doi.org/10.1097/AUD.0000000000000595

Bolajoko O Olusanya,aKatrin J Neumannb& James E Saundersc(2013), The global burden of disabling hearing impairment , Published online: 18 February 2014), Retrieved May 18, 2019

Bonetti, L., Šimunjak, B., &Franić, J. (2018). Validation of self-reported hearing loss among adult Croatians: the performance of the Hearing Self-Assessment Questionnaire against audiometric evaluation. *International Journal of Audiology*, *57*(1), 1–9. https://doi.org/10.1080/14992027.2017.1355073

Brewster, K. K., Ciarleglio, A., Brown, P. J., Chen, C., Kim, H. O., Roose, S. P., … Rutherford, B. R. (2018). Age-Related Hearing Loss and Its Association with Depression in Later Life. *American Journal of Geriatric Psychiatry*, *26*(7), 788–796. https://doi.org/10.1016/j.jagp.2018.04.003

Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Dalton DS, Cruickshanks KJ, Klein BE, Klein R, Wiley TL, Nondahl DM. The impact of hearing loss on quality of life in older adults. *Gerontologist*. 2003;43(5):661-668. doi:10.1093/geront/43.5.661

Dalton, D. S., Cruickshanks, K. J., Klein, B. E., Klein, R., Wiley, T. L., &Nondahl, D. M. (2003). The impact of hearing loss on quality of life in older adults. *The gerontologist*, *43*(5), 661-668.

Daoudi, M. S. D. (2009). Conceptualization and debate on environmental and human security in Palestine. *Facing Global Environmental Change*, 873-883.

Davis, A., McMahon, C. M., Pichora-Fuller, K. M., Russ, S., Lin, F., Olusanya, B. O., … Tremblay, K. L. (2016, April 1). Aging and hearing health: The life-course approach. *Gerontologist*. Gerontological Society of America. https://doi.org/10.1093/geront/gnw033

Eljedi, A. (2005). Diabetes mellitus among the Palestinian refugee in Gaza Srtip. Toward better Quality of life. PHD thesis. Bielefeld University, Germany.

Embassy of Palestine, (2019). Geography. Ambasciata di Palestina. Roma. Retrieved at April 24, 2019, from: http://www.ambasciatapalestina.com/en/palestine/geography/

Eva, et.al,Gender differences in improvement of older-person-specific quality of life after hearing-aid fitting, disability and health journal, No,12, 31st ,august,2018.

Ferguson, M., Maidment, D., Russell, N., Gregory, M., & Nicholson, R. (2016). Motivational engagement in first-time hearing aid users: A feasibility study. *International Journal of Audiology*, *55*, S23–S33. https://doi.org/10.3109/14992027.2015.1133935

H.E. Ms. Awad, Highlights the Situation of the Palestinian Women on the Eve of the International Women's Day, 08/03/2019.from: http://www.pcbs.gov.ps/site/512/default.aspx?lang=en&ItemID=3406

Hannoun, M. (2012). Quality of Life among patients with ischemic heart diseases in Gaza City. Un-published thesis: Al-Quds University. Palestine.

Hawkins, K., Bottone, F. G., Ozminkowski, R. J., Shirley Musich, Bai, M., Migliori, R. J., &Yeh, C. S. (2012). The prevalence of hearing impairment and its burden on the quality of life among adults with Medicare Supplement Insurance. *Quality of Life Research*, *21*(7), 1135–1147. https://doi.org/10.1007/s11136-011-0028-z, , Retrieved May 18, 2019.

https://doi.org/10.1016/j.maturitas.2012.03.010
https://unctad.org/meetings/en/SessionalDocuments/tdbex68d4_en.pdf?user=46

Hughes.S, et al,.2014." Hearing Loss in the Middle East: Attitudes of Kuwaiti Adults". International Journal of Health Sciences Published by American Research Institute for Policy Development. http://dx.doi.org/10.15640/ijhs.v2n4a1

Hyams, A. V., Hay-McCutcheon, M., &Scogin, F. (2018). Hearing and quality of life in older adults. *Journal of Clinical Psychology*, *74*(10), 1874–1883. https://doi.org/10.1002/jclp.22648

Khleif, M., & Imam, A. (2013). Quality of life for Palestinian patients with cancer in the absence of a palliative-care service: a triangulated study. The Lancet, 382:23-28.

le Roux, T., Vinck, B., Butler, I., Louw, L., Nauta, L., Schlesinger, D., &Swanepoel, D. W. (2017). Predictors of health-related quality of life in adult cochlear implant recipients in South Africa. *International Journal of Audiology*, *56*(1), 16–23. https://doi.org/10.1080/14992027.2016.1227482

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based dentistry, 7*(1), 24-25.

Liljas, A. E. M., Wannamethee, S. G., Whincup, P. H., Papacosta, O., Walters, K., Iliffe, S., … Ramsay, S. E. (2016). Socio-demographic characteristics, lifestyle factors and burden of morbidity associated with self-reported hearing and vision impairments in older British community-dwelling men: A cross-sectional study. *Journal of Public Health (United Kingdom)*, *38*(2), e21–e28. https://doi.org/10.1093/pubmed/fdv095, Retrieved May 18, 2019

Luzon, F. (2008). Quality of Life among rehabilitated stroke survivors in Gaza Strip. Unpublished thesis: The Islamic University of Gaza. Palestine

Mann, C. J. (2003). Observational research methods. Research design II: cohort, cross sectional, and case-control studies. *Emergency medicine journal*, *20*(1), 54-60.

Mehra, S., Eavey, R. D., &Keamy, D. G. (2009, April). The epidemiology of hearing impairment in the United States: Newborns, children, and adolescents. *Otolaryngology - Head and Neck Surgery*. https://doi.org/10.1016/j.otohns.2008.12.022

Mikulec, A. A. (2009). Congenital hearing loss (sensorineural and conductive). In *Pediatric Otolaryngology for the Clinician* (pp. 75–79). Humana Press. https://doi.org/10.1007/978-1-60327-127-1_10

Mukara BK1, Ntihabose KC2, Dazert S3 and Löhler(2017). Self-Reported Causes of Hearing Loss among Patients Presenting at an Audio-otology Camp in Rwanda, retrived May13th, 2019

Mushtaha, M. (2017). Quality of Life among Patients with Glaucoma in Gaza Governorates. Un-published thesis: Al-Quds University. Palestine.

Nofal, M. (2010). Quality of Life among breast cancer patients in Gaza Governorates during 2007. Un-published thesis: Al-Quds University. Palestine.

Palestinian Academic Society for the Study of International Affairs (PASSIA), (2019): "Facts and Figures: geography". Jerusalem, Palestine. (http://www.passia.org/ palestinefacts/facts_and_figures/0_facts_and_figures.htm#facts.

Palestinian Central Bureau of Statistics , Poverty Profile in Palestine, (2017).

Palestinian Central Bureau of Statistics and Ministry of Social Affairs, 2011. Press conference report, Disability Survey, 2011. Ramallah Palestine.

Palestinian Central Bureau of Statistics, 2017. The Status of the Rights of Palestinian Children, 2016. Ramallah – Palestine.

Palestinian Central Bureau of Statistics, 2017. The occasion of the International Population Day on11/7/2019 . Retrieved at August 29, 2019, from: http://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=3503

Palestinian Central Bureau of Statistics, Ministry of Social Affaires, Disability Survey, 2011 Press conference report, June, 2011

Palestinian Central Bureau of Statistics,2017. Poverty Profile in Palestine, 2017 ,from: http://www.pcbs.gov.ps/Document/pdf/txte_poverty2017.pdf?date=16_4_2018_2

Palestinian Central Bureau of Statistics,2017. Poverty Profile in Palestine, 2017,from: http://www.pcbs.gov.ps/site/lang__en/881/default.aspx

Ptok, M. (2018). Early Detection of Hearing Impairment in Newborns and Infants. *DeutschesAerzteblatt Online*. https://doi.org/10.3238/arztebl.2011.0426, , Retrieved May 15, 2019

Roland, L., Fischer, C., Tran, K., Rachakonda, T., Kallogjeri, D., & Lieu, J. E. C. (2016). Quality of Life in Children with Hearing Impairment: Systematic Review and Meta-analysis. In *Otolaryngology - Head and Neck Surgery (United States)* (Vol. 155, pp. 208–219). SAGE Publications Inc. https://doi.org/10.1177/0194599816640485

Southall, K., Jennings, M. B., Gagné, J. P., & Young, J. (2019). Reported benefits of peer support group involvement by adults with hearing loss. *International Journal of Audiology*, *58*(1), 29–36. https://doi.org/10.1080/14992027.2018.1519604

Stehel, E. K., Shoup, A. G., Owen, K. E., Jackson, G. L., Sendelbach, D. M., Boney, L. F., & Sanchez, P. J. (2008). Newborn Hearing Screening and Detection of Congenital Cytomegalovirus Infection. *PEDIATRICS*, *121*(5), 970–975. https://doi.org/10.1542/peds.2006-3441, , Retrieved May 15, 2019

Tatović, M., Babac, S., Djerić, D., Aničić, R., &Ivanković, Z. (2011). The impact of hearing loss on the quality of life in adults. *SrpskiArhivZaCelokupnoLekarstvo*, *139*(5–6), 286–290. https://doi.org/10.2298/SARH1106286T

Tsimpida, D., Kaitelidou, D., &Galanis, P. (2018). Determinants of health- related quality of life (HRQoL) among deaf and hard of hearing adults in Greece: a cross-sectional study. *Archives of public health = Archives belges de santepublique*, *76*, 55. https://doi.org/10.1186/s13690-018-0304-2

Tunkel, D. E., Bauer, C. A., Sun, G. H., Rosenfeld, R. M., Chandrasekhar, S. S., Cunningham, E. R., … Whamond, E. J. (2014). Clinical practice guideline: Tinnitus. *Otolaryngology - Head and Neck Surgery (United States)*. SAGE Publications Inc. https://doi.org/10.1177/0194599814545325

United Nations Conference on Trade and Development." Report on UNCTAD assistance to the Palestinian people: Developments in the economy of the Occupied Palestinian Territory". 22 July 2019.

Vuckovic, D., Biino, G., Panu, F., Pirastu, M., Gasparini, P., &Girotto, G. (2014). Age related hearing loss and level of education: An epidemiological study on a large cohort of isolated populations. *Hearing, Balance and Communication*, *12*(2), 94–98. https://doi.org/10.3109/21695717.2014.911472, Retrieved May 2nd, 2019

Wasserman, D., Bickenbach, J. &Wachbroit, R. (2005). Quality of Life and Human Difference Genetic Testing, Health Care, and Disability. Cambridge University Press,

WEST BANK AND GAZA DISABILITY IN THE PALESTINIAN TERRITORIES Assessing Situation and Services for People with Disabilities (PWD)

World Health Organization (2019). WHOQOL: Measuring Quality of Life. WHO, Geneva. Retrieved April 23, 2019, from: https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/index4.html

World Health Organization, Prevention of Blindness and Deafness (PBD), 20 Avenue Appia, CH-1211 Geneva 27, Switzerland,From: https://www.who.int/pbd/deafness/facts/en/

Zahran,S.(2010)." The Quality of life for the Hearing Impaired in light of some Demographic Variables". Published M.P.H theses. University of Al-Menouphiya. Egypt.

Zhan, W., Cruickshanks, K. J., Klein, B. E. K., Klein, R., Huang, G. H., Pankow, J. S., … Tweed, T. S. (2011). Modifiable determinants of hearing impairment in adults. *Preventive Medicine*, *53*(4–5), 338–342. https://doi.org/10.1016/j.ypmed.2011.08.012 ,Retrieved May 2nd, 2019

التهامي ، حسين احمد عبد الرحمن (٢٠٠٦م). ضوء الاتجاهاتالعالمية المعاصرة، ط١ ، القاهرة ، الدار العالمية للنشر.

Annexes

Annex 1: Map of Palestine

Annex 2: Study activities time table

Activity	Duration	3	4	8	9	10	11	12	1	2	3	4

Proposal writing and discussion	2 months											
Proposal defense and approval	1 month											
Expert committee check for validity for instruments	1 month											
Pilot study	2 weeks											
Modifications	2 weeks											
Data collection	3 months											
Data entry	3 months											
Data analysis	2 months											
Research writing	3 months											

Annex 3: Online sample size calculator

Raosoft® — Sample size calculator

What margin of error can you accept? 5% is a common choice	5 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	95 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than the margin of error away fro[m] the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	482	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? Leave this as 50%	50 %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other,the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.
Your recommended sample size is	215	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Annex 4: WHOQOL-BREF-26 Questionnaire English version

WHOQOL-BREF

& DISABILITIES MODULE

A Measure of the Quality of Life of People with Disabilities

Prepared by the DIS-QOL Group January 2011

WHOQOL-BREF & Disabilities Module - Field Trial Version(Final1/1/11)

ABOUT YOU

Before you begin, we would like to ask you to answer a few general questions about yourself. Please

answer by putting a cross like this **X** in the box beside the correct answer <u>OR</u> write in the spaceprovided.

Gender Male ☐ Female ☐

Age (in years) ☐ **Date of Birth** ☐☐☐
(dd/ mm / yy)

Education: *What is the highest level of education you received?*

Illiterate ❑
Primary ❑
Preparatory❑
Secondary❑
Vocational ❑

Marital status: *Select the **one** that best describes your **current** situation*

Single ❑ Married ❑ Widow ❑ Divorced❑

Income: *Compared to other people in your country, how would you rate your **financial situation and possessions**?*

❑High ❑Medium ❑Weak ❑None

How much your family understanding and interaction with you?

❑High ❑Medium ❑ Weak ❑None

Is your hearing disability inherited? Yes ❑ No ❑

Is there any other disability combined your hearing disability? Yes ❑ No ❑

Do you use any hearing aids? Yes ❑ No ❑

Are you committed to health follow up ? Yes ❑ No ❑

Is there any other heath problem? Yes ❑ No ❑

<u>If something is wrong with your health</u>, what do you think it is?…………………………………………………………

…………………………………………………………………………………………………….. illness /problem

Adjusted by the researcher

Thank you for this information

INSTRUCTIONS

This assessment asks how you feel about your quality of life, health or other areas of your life. It is just

about you
– you and your life.

Please keep in mind **what is important to you**; what makes you happy; your hopes and dreams, and your worries or concerns.

Please answer all the questions. If you are unsure about which answer to give to a question - if it is hard to pick an answer - **please choose the one** that seems nearest or most appropriate. This can often be the first thing that comes into your mind. Some questions include an example to help you think about your answer.

There are no right or wrong answers – just answer what is true for you. Please think about your life **in the last two weeks.**

For example, thinking about the last two weeks, a question might ask:

EXAMPLE	☹		😐		☺
	Not at all	A Little	Moderately	Mostly	Totally
Do you get the kind of support from others that you need? *For example, do you get the kind of help you need from other people?*	1	2	3	4	5

In this item, the question has an example. You should circle the number that best fits your opinion about the kind of support (or help) you got from others over the last two weeks. So you would circle the number 2 if the support (or help) you got met your needs a little, as follows:

EXAMPLE	☹		😐		☺
	Not at all	A Little	Moderately	Mostly	Totally
Do you get the kind of support from others that you need? *For example, do you get the kind of help you need from other people?*	1	(2)	3	4	5

Alternatively, you would circle number 1 if the support you got over the last two weeks did not meet your needs at all.

Please read each question, think about your feelings, and circle the number on the scale for each question that gives the best answer for you.

You may find it helpful to look at the ‘smiley faces’ that add a visual guide (a picture) to the number scales for some items. These are available printed on separate cards also.

If you would like some help to write your answers on the form, it is OK to ask someone to do this for you.

Please think about your life **in the last two weeks**:
The first two questions ask about your life and health overall.

		Very poor	Poor	Neither poor nor good	Good	Very good
1G	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2G	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	n extreme amount
3	To what extent do you feel that (physical) pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5	How much do you enjoy life?	1	2	3	4	5
6	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experienced or were able to do certain things in the last two weeks.

		Not at all	A Little	Moderately	Mostly	Completely
10	Do you have enough energy for everyday life?	1	2	3	4	5
11	Are you able to accept your bodily appearance?	1	2	3	4	5
12	Have you enough money to meet your needs?	1	2	3	4	5

		Not at all	A Little	Moderately	Mostly	Completely

13	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither poor nor good	Good	Very good
15	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16	How satisfied are you with your sleep?	1	2	3	4	5
17	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18	How satisfied are you with your capacity for work?	1	2	3	4	5
19	How satisfied are you with yourself?	1	2	3	4	5
20	How satisfied are you with your personal relationships?	1	2	3	4	5
21	How satisfied are you with your sex life?	1	2	3	4	5
22	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24	How satisfied are you with your access to health services?	1	2	3	4	5
25	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Do you have any comments about the questionnaire?

………
………
………
………

THANK YOU FOR YOUR HELP

Annex (5) WHOQOL-BREF-26 Questionnaire Arabic version

WHOQOL – BREF

استبيان مختصر لجودة الحياة النوعية
النسخة العربية – مايو 1997 م

برنامج عن الصحة النفسية
منظمة الصحة العالمية
جنيف

	Equations for computing domain scores	Raw	Transformed scores	
		Score	4 - 20	0 - 100
Domain 1	(6- Q3) + (6-Q4) +Q 10 + Q15 + Q16 + Q17 + Q18 ❑ + ❑ + ❑ + ❑ + ❑ + ❑ + ❑	=		
Domain 2	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) ❑ + ❑ + ❑ + ❑ + ❑ + ❑	=		
Domain 3	Q20 + Q21 + Q22 ❑ + ❑ + ❑	=		
Domain 4	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24+ Q25 ❑ + ❑ + ❑ + ❑ + ❑ + ❑ + ❑ + ❑	=		

أحوالك الشخصية

قبل أن نبدأ نود منك الاجابة على بعض الاسئلة العامة عن نفسك , و ذلك بوضع دائرة حول الإجابة الصحيحة أو بملأ الفراغات الموجزة

I- المعلومات الشخصية

1- ما هو جنسك ❑ ذكر ❑أنثى

2- ما هو تاريخ ميلادك اليوم ______الشهر______السنة_______

3- ما هو أعلى درجة تعليم حصلت عليها

- ❑ لا شئ
- ❑ المرحلة الإبتدائية
- ❑ المرحلة الإعدادية
- ❑ المرحلة الثانوية
- ❑ تعليم مهني

4- ما هي حالتك الاجتماعية ؟

❑ أعزب ❑ متزوج ❑ أرمل ❑ مطلق

5- ما هو معدل دخل الاسرة ؟

❑ مرتفع ❑ متوسط ❑ ضعيف ❑ لا يوجد

6- ما مستوى تفاهم و تفاعل الاسرة معك ؟

❑ مرتفع ❑ متوسط ❑ ضعيف ❑ لا يوجد

7- **هل مشكلة السمع وراثية ؟**❑نعم ❑ لا

8- هل هناك اعاقةاخرى مصاحبة لإعاقة السمع ؟ ❑نعم ❑ لا

9- هل تستخدم اياداه مساعدة للسمع ؟ ❑نعم ❑ لا

10- هل انت ملتزم بالمتابعة الصحية ؟ ❑نعم ❑ لا

11- **هل تعاني من أي مشاكل صحية** ❑نعم ❑ لا

ما هي هذه المشاكل: ______________________________

التعليـــــمات

هذا الاستبيان يستفسر عما تشعر به فيما يتعلق بنوعية حياتك و صحتك و نواحي أخربمن حياتك , نرجو الإجابة على جميع الأسئلة . إذا لم تكن متأكد من الإجابة على سؤال معين , نرجو اختيار الجواب الأنسب . و هذا قد يكون ردك الأول في أحيان كثيرة . نرجو أن تضع في اعتبارك قيمك و آمالك و ما يمنعك و يشغلك . نطلب أن تفكر في نمط حياتك خلال الشهرينالماضيين مثلا . قد يكون السؤال :

	لا يوجد	قليلا	نوعا ما	كثيرا	دائما
هل تحصل على أي دعم أو مساعدة من الأخرين؟	1	2	3	4	5

عليك وضع دائرة حول االرقم الذي يصف مقدار الدعم أو المساعدة من الآخرين خلال الشهرينالماضيين . و هكذافإنك ستضع الدائرة حول الرقم (4) إذا كنت قد حصلت على دعم كبير من الآخرين كالآتي

	لا يوجد	قليلا	نوعا ما	كثيرا	دائما
هل تحصل على أي دعم أو مساعدة من الأخرين ؟	1	2	3	(4)	5

قد تضع الدائرة حول الرقم (1) إذا لم تحصل على أي دعم أو مساعدة تتمناها من الآخرين خلالالشهرين الماضيين .

*** يرجى قراءة كل سؤال و تقيم مشاعرك ووضع الدائرة حول الرقم الذي يعطي أفضل إجابة بالنسبة لك.**

	كيف تقيم جودة حياتك؟	سيئة للغاية	سيئة	لا بأس	جيدة	جيدة جداً
(G1)1		1	2	3	4	5

		غير راض مطلقا	غير راض	لا راض و لا غير راض	راض	راض تماما
2(G4)	كيف أنت راض عن صحتك ؟	1	2	3	4	5

*** الأسئلة التالية تستفسر عن مدى تعرضك لأشياء معينة خلال الشهرينالماضيين**

		لا يوجد	قليلا	بدرجة متوسطة	كثير جدا	بدرجة بالغة
3(F1.4)	إلى أي حد تشعر بأن الوجع يمنعك من القيام بالأعمال التي تريدها ؟	1	2	3	4	5
(F11.3)4	كم تحتاج من العلاج الطبي لتتمكن من القيام بأعمالك اليومية ؟	1	2	3	4	5
(F4.1)5	إلي أي مدى تستمتع بالحياة ؟	1	2	3	4	5
(F24.2)6	إلي أي مدى تشعر بأن حياتك ذات معنى ؟	1	2	3	4	5
(F5.3)7	كم أنت قادر على التركيز ؟	1	2	3	4	5
(F16.1)8	كم تشعر بالأمان في حياتك اليومية ؟	1	2	3	4	5
(F22.1)9	إلى أي حد تعتبر البيئة المحيطة بك صحية ؟	1	2	3	4	5

*** الأسئلة التالية تستفسر عن مدى قدرتك على إتمام أمور معينة خلال الأسبوعين الماضيين**

		لا يوجد	قليلا	بدرجة متوسطة	كثير جدا	بدرجة بالغة
(F2.1)10	هل لديك طاقة كافيه لمزاولة الحياة اليومية ؟	1	2	3	4	5
(F7.1)11	هل أنت قادر على قبول مظهرك الخارجي ؟	1	2	3	4	5
(F18.1)12	هل لديك من المال ما يكفي لتلبية إحتياجاتك ؟	1	2	3	4	5
(F20.1)13	كم تتوفر لك المعلومات التي تحتاجها في حياتك اليومية ؟	1	2	3	4	5
(F21.1)14	إلي أي مدى لديك الفرصة للأنشطة الترفيهية ؟	1	2	3	4	5

		سيئة للغاية	سيئة	لا بأس	جيدة	جيده جدا
(F9.1)15	كم أنت قادر على التجول بسهولة	1	2	3	4	5

*** الأسئلة التالية تطلب منك أن تعبر عن مدى رضاك نحو جوانب مختلفة من حياتك خلال الشهرين الماضيين**

		غير راض مطلقا	غير راض	لا راض و لا غير راض	راض	راض تماما
(F3.3)16	كم أنت راض عن نومك ؟	1	2	3	4	5
(F10.3)17	إلي أي مدى أنت راض عن قدرتك على القيام بنشاطاتك اليومية ؟	1	2	3	4	5
(F12.4)18	كم أنت راض عن قدراتك على العمل ؟	1	2	3	4	5
(F6.3)19	كم أنت راضعن نفسك ؟	1	2	3	4	5
(F13.3)20	كم أنت راض عن علاقاتك الشخصية ؟	1	2	3	4	5
(F15.3)21	كم أنت راض عنحياتك الجنسية ؟	1	2	3	4	5
(F14.4)22	كم أنت راض عن الدعم أو المساعدة من الأصدقاء ؟	1	2	3	4	5
(F14.4)23	كم أنت راض عن أحوالك السكنية ؟	1	2	3	4	5
(F19.3)24	كم أنت راض عن الخدمات الصحية المتوفرة لك ؟	1	2	3	4	5
(F23.3)25	كم أنت راض عن وسائل مواصلاتك.؟	1	2	3	4	5

*** الأسئلة التالية تشير إلى كممن المرات شعرت أو تعرضت فيها لأشياء معينة خلال الشهرين الماضيين**

		أبدا	نادرا	غالبا	غالبا جدا	دائما
(F8.1)26	كم من المرات كانت عندك مشاعر سلبية مثل الحزن أو اليأس أو القلق أو الاكتئاب ؟	1	2	3	4	5

هل ساعدك أحد في ملء هذا الإستبيان ؟

كم من الوقت إستغرقت لملء هذا الإستبيان ؟

هل لديك أي تعليقات حول هذا الإستبيان ؟

Annex 6: Helsinki committee approval

المجلس الفلسطيني للبحث الصحي
Palestinian Health Research Council
تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار
Developing the Palestinian health system through institutionalizing the use of information in decision making

Helsinki Committee
For Ethical Approval

Date: 2019/06/17 **Number:** PHRC/HC/578/19

Name: Fatma Ali Ramadan الاسم:

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

Quality of life among adults with hearing impairment in the Gaza Governorates

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/578/19 in its meeting on 2019/06/17

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

Dr. Yehia Abed

Signature

Member **Member**

Chairman

Dr. Assad

Genral Conditions:-

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

Specific Conditions:-

E-Mail:pal.phrc@gmail.com

Gaza - Palestine غزة - فلسطين
شارع النصر - مفترق العيون

تقييم جودة الحياه لدي البالغين من ذوي الإعاقة السمعية في قطاع غزة

إعداد: فاطمة علي رمضان

إشراف: د. أشرف الجدي

ملخص الرسالة

مقدمة

ضعف السمع هو احدى الحالات الصحية المزمنة والإعاقات التي ترتبط ارتباطًا وثيقًا بالإدراك وتقييم الذات وتبادل المعلومات والتي تأثر على جودة الحياة ، وبالتالي فإن فهم تأثير فقدان السمع على نوعية الحياة له أهمية كبيرة. برزت جودة الحياة كمعامل مهم لتقييم التحديات بين البالغين الذين يعانون من ضعف السمع من أجل المساهمة في تحسين نوعية حياتهم, لذلك كان الهدف العام من الدراسة هو تقييم جودة الحياه لدى ضعاف السمع الباغين في قطاع غزة .

المنهجية

تصميم هذه الدراسة وصفي كمي ونوعي تحليلي مقطعي لقياس جودة الحياه لدى ضعاف السمع البالغين في قطاع غزة , حيث استهدفت الدراسة 215 شخص من البالغين ذوي الاعاقة السمعية والذين تبلغ اعمارهم 18 سنة فما فوق والذين انضموا البالاماكن الحكومية وغير الحكومية تقوم على تقديم الخدمات التعليمية والاجتماعية والتأهيلية الخاصة لهذه الفئة في محافظات قطاع غزة , وقد تم جمع البيانات من خلال الاستبيانات WHOQOL–BREF و اجراء مقابلات ومجموعات بؤرية مع مجموعة من البالغين ذوي الاعاقة السمعية, مع معدل استجابة (97.6%).

النتائج

أظهرت النتائج أن جودة احياه لدى البالغين من ذوي الاعاقة السمعية في غزة كانت متوسطة , وبلغ متوسط الحرز الاجمالي (64.1٪). متراوحا ما بين البعد النفسي الذي جاء في المرتبة الأولى بنسبة (67.8٪) والبعد البيئي الذي جاء في المرتبة الأخيرة بمتوسط حسابي (60٪). أظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية ($\alpha \leq 0.05$) بين الجودة الكلية للحياة مع متغيرات مستوى فهم الأسرة لضعاف السمع والتفاعل معهم ، ومتغير وجود إعاقة أخرى مرتبطة بها. الذين يعانون من ضعف السمع ، وكذلك متغير استخدام السماعات مثل سماعات الرأس ، حيث أظهر عدم وجود فروق ذات دلالة إحصائية ($\alpha \geq 0.05$) بين المشاركين على الجودة الكلية للحياة مع المتغيرات الأخرى مثل الجنس والعمر مستوى التعليم ، الأحوال الشخصية (أعزب ، متزوج) ، متوسط دخل الأسرة ، مدى الالتزام بالمتابعة الصحية ، والمعاناة من أي مشكلة صحية. كما أظهرت نتائج الدراسة أن صعوبات السمع تظهر في كل جيل ولكن انتشارها يزداد بين كبار السن. يعاني الأشخاص ضعاف السمع من مشاكل عاطفية وسلوكية وتكيفية مع الآخرين ، مما يؤدي إلى أعراض مثل القلق والاكتئاب والارتباك ، وفقدان السمع ومشاكل الأذن مثل طنين الأذن التي لها تأثير سلبي على الصحة النفسية والعقلية.

الخلاصة

خلصت الدراسة الىان جودة الحياه لدي البالغين من ذوي الاعاقة السمعية في قطاع غزة كانت متوسطة. أظهرت الدراسة بعض المشكلات والتحديات الشائعة التي صادفت البالغون من ذوي الإعاقات السمعية والتي لا يتم تقييمها بانتظام في مجتمع غزة. وقد أثبتت الدراسة وجود آثار واسعة تتعلق بالثقة بالذات والأدوار الاجتماعية والقدرة على العمل بشكل مستقل في كل مجال من مجالات الحياة ، فهي تؤثر على الجانب النفسي بالدرجة الأولى بالإضافة إلى الرفاهية العقلية والاجتماعية.