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Patients' Satisfaction with the Non-communicable Diseases Services Provided at UNRWA Health Centres in Gaza Governorates

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Thesis Approval

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بسم الله الرحمن الرحيم

فَأَمَّا الزَّبَدُ فَيَذْهَبُ جُفَاء وَأَمَّا مَا
يَنفَعُ النَّاسَ فَيَمْكُثُ فِي الأَرْضِ كَذَلِكَ يَضْرِبُ اللّهُ الأَمْثَالَ
(الرعد:17)

Dedication

In loving memory of my father and brothers

Zoheir Elkhatib

Declaration

I certify that this thesis submitted for the degree of master is the result of my own research, except where otherwise acknowledged, and that this thesis has not been submitted for a higher degree to any other university or institution.

Signed

Zoheir Elkhatib

Date: June, 19th 2010.

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Abstract

Most organizations increasingly became interested in assessing the quality of their health care services. As a part of quality assessment in health field, patient satisfaction plays a central role, as it reflects the appropriateness of services from clients' perspectives. This study aims to assess the level of satisfaction among patients' with Non-Communicable Diseases (NCDs), receiving services from UNRWA health centres in Gaza governorates.

The design of this study is a cross-sectional one. Systematic random sample of clients presented to the randomly selected 6 NCDs clinics were included in the study. Through an exit interviewing technique, 400 patients' were chosen according to the study eligibility criteria and were requested to complete an interviewed questionnaire. The reported response rate was high (81.8%). The total instrument reliability (Cronbach's Alpha) was very high (0.936). To examine construct validity, Factor Analysis Principal Component Extraction with Varimax Rotation and Kaiser Normalization were carried out. The used cut off point was 0.4. The reported variance level was 42.28% indicating high validity.

The reported overall satisfaction level with NCDs services was moderately high (71.9%). The study extracted six domains that may constitute a frame for patients' satisfaction with NCDs services at UNRWA NCDs clinics. Elicited satisfaction scores about these domains varied and ranged from 56.6% to 83.8%. Whilst, high satisfaction levels were found with general impressions, accessibility, communication and interpersonal relationships, lower level of satisfaction were recognized with technical quality of services, clinic environment and convenience of the services.

Findings revealed that, unmarried, working, living in the south, educated, and patients who received educational materials were statistically significantly more satisfied than their counterparts. Additionally, clients who were seen by specific health provider, patients who received all their medications from UNRWA, and those who haven't been turned back home without receiving service they came to receive were statistically significantly more satisfied than their counterparts. In contrary, gender, age, presence of disability, presence of complications associated with NCDs, control status, kind of NCDs disease, type of treatment provided, duration of NCDs showed no statistically significant differences in the level of satisfaction among patients.

The study revealed that increasing the level of convenience and promoting the technical quality of work are important factors that require consideration in order to improve satisfaction of patients with NCDs. Furthermore, health managers and health providers could use the study findings to focus more on those who are at risk of developing lower satisfaction level about NCDs services.

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List of abbreviations

ANOVA	Analysis Of Variance
CAHD	Coronary Artery Heart Disease
CVD	Cardiovascular Disease
CVI	Content Validity Index
DM	Diabetes Mellitus
DOHC	Department of Health and Children
EGH	European Gaza Hospital
GP	General Practice
GS	Gaza Strip
HBA1C	Glycolated Haemoglobin A1 C
HIV	Human Immune Virus
HTN	Hypertension
IMR	Infant Mortality Rate
ISQSH	Irish Society for Quality and Safety in Health care
LSQ	Leeds Satisfaction Questionnaire
MMR	Maternal Mortality Ratio
MOH	Ministry Of Health
NCDs	Non-Communicable Diseases
NGOs	Non-Governmental Organizations
OHA	Oral Hypoglycaemic Agents
PASSIA	Palestinian Academic Society for the Study of International Affairs
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
PLO	Palestinian Liberation Organization
PNA	Palestinian National Authority
PNGO	Palestinian Non-Governmental Organizations
PPPG	Post Prandial Plasma Glucose

QOL	Quality of Life
RA	Rheumatoid Arthritis
SPSS	Statistical Package for Social Sciences
UNRWA	United Nations Relief and Works Agency For Palestine Refugees in the Near East
WB	West Bank
WHO	World Health Organization

Chapter one

Introduction

1.1 Background

As populations age in middle and low income countries over the next 25 years, the proportion of deaths due to Non-communicable diseases (NCDs) will rise significantly. According to the World Health Organization (WHO), globally deaths due to cardiovascular diseases will rise from 17.1 million in 2004 to 23.4 million in 2030 (WHO, 2008).

According to the World Health Statistics (2008), by 2030 deaths due to cancer, cardiovascular diseases and traffic accidents will collectively account for 56% of the projected 67 million deaths due to all causes, this increase in deaths from NCDs will be accompanied by large declines in mortality for the main communicable, maternal, perinatal and nutritional causes, including Human Immune Virus (HIV) infection, tuberculosis and malaria (WHO, 2008). It is predicted that the four leading causes of death in the world in 2030 will be ischemic heart disease, stroke, chronic obstructive pulmonary disease and lower respiratory infections mainly pneumonia (WHO, 2008). This increase in the NCDs could be attributed to many factors including urbanization, population ageing, behavioural change, and the failure of disease prevention, diagnosis and management.

In Palestine, the situation is not much different from other countries in the region, in addition to the factors mentioned above; the Palestinian people have a tough and challenging life which increases their chances of acquiring chronic diseases mainly diabetes and hypertension as a result of the stress they face on daily basis (Palestinian Non-Governmental Organizations-PNGO 2009). The NCDs is considered as the leading cause of morbidity and mortality in the Mediterranean region, the cost of treating those diseases is beyond the economic ability of many countries in the region. Furthermore the global economic crises made things even harder, Ministry of Health (MOH) pointed that focus should be on primary health care centres in preventing the occurrence of such diseases (MOH, 2005).

Diabetes is also a challenge to the Palestinian people, diabetes proven to reduce health related quality of life in diabetic patients living in Gaza Strip (GS) camps (Eljedi, October 2006). With limited resources, high unemployment level, increasing poverty and the stressful life, it is difficult to control this disease. In 2005, 41% out of 2,741 newly reported cases in West Bank (WB) diabetic clinics were among the age group of 35-54 (MOH, 2005). This is an

alarming figure, which indicates that action should be taken to stop the rise in figures; the seriousness of the issue is that the increasing number of cases is occurring among the economically productive people, which would eventually affect the economy of Palestine that has been rendered inefficient by the recurrent attacks of Israeli army and the siege on GS since 2006.

United Nations relief and Works Agency (UNRWA) reported that by the end of 2008, the newly diagnosed cases of both diabetes and hypertension among Palestine refugees in GS were 5042 cases, out of 49528 registered cases of both diseases, 50% were among the age group of 40-59 (UNRWA, 2008). The estimated prevalence rates of diabetes mellitus (DM) and hypertension (HTN) among refugee persons utilizing UNRWA health services aged 40 years and above were 12.7 and 18.9 % respectively in GS (UNRWA, 2008). To bring NCDs under control, there has to be a change in the way we manage these diseases; we should employ the available data to better understand the situation and other disease related variables, and work hard to improve the quality of services.

Although biomedical science is at the heart of modern medicine, other things related to quality should be considered for example patient perception of care, expectations and level of satisfaction. Patient satisfaction has been identified by the WHO as an integral part of any quality assurance programme (WHO, 1999). Although this is not typically applicable in our country, usually in developing countries patients' perceptions of care have been largely ignored by health care providers (Andaleeb, May 2001). Moreover, to improve the services provided, patients must play a greater role in the design of the care provided to them in developing countries; by other means to create a culture that supports patient's centred care culture.

Torres and Guo (2004) concluded that in any organization, achieving high level of patient satisfaction through quality improvement should be the priority. They also stated that collaboration between all health care professionals and managers as they seek to increase patient satisfaction is one of the key elements of quality improvement techniques (Torres and Guo, 2004). There is a high association between continuity of care and patient satisfaction;

this suggests that improving continuity of care will improve patient satisfaction with the care provider and the health organization (Fan *et al*., March 2005).

Worldwide there is a high competition for health care services. In practice, clinicians rarely address their patients' concerns, beliefs and understanding of illness, and seldom share management options with them (Bergeson and Dean, December 2006). It doesn't matter whether the degree of satisfaction reflects the competence level of the physician or the quality of care, but what matters is if patients are dissatisfied that means the health care has not achieved its goals (Heidegger *et al*., June 2006).

Patient's satisfaction, is one of the main components in assessing the quality of care, the truth about patient satisfaction surveys is that they can help you identify ways of improving your practice (White, January 1999). The importance of clients' satisfaction with the care they receive has been reported as reflection of clients' continuity in seeking medical care and their compliance to treatment. Furthermore, it is indicated that satisfied clients are more likely to follow-up medical advice and show fewer complaints (Hill, February 1997).

In addition to that, patients' satisfaction is considered a significant factor in determining the quality of care, particularly, in chronically diseased patients (Bos and Triemstra, December 1999; Hill, February 1997). Although, the body of satisfaction research has been grown in developed countries, still there is limited data about satisfaction in developing countries. Patients' satisfaction is related to the extent to which general health care needs and condition-specific needs are met.

1.2 Research problem

Non-communicable diseases remain the major cause of death in the occupied Palestinian territory, which results in high direct cost of care, high indirect cost as a result of its complications in form of loss of production and much societal stress (Husseini *et al*., March 2009). Bringing these diseases under control presents both moral and practical challenges, and mandates improving the quality of services provided to the concerned population. Satisfaction is considered one of the measures of quality of health services, patients' satisfaction with NCDs in GS hasn't been adequately studied.

Assessing patient satisfaction can help to identify ways of improving practice and translates into better care and happier patients. This research will assess the level of patient's satisfaction with UNRWA NCDs services in GS and its impacts on their health status, aiming at improving the quality of services provided to the Palestine refugees and hence reducing their mortality and morbidity. In other words, it fills important information gaps about the level of satisfaction among NCDs patients and answers the unanswered question about their satisfaction with services, and investigates the factors affecting patients' satisfaction and its impacts on their health.

1.3 Justification of the study

The Palestinian population as other populations in the region is going through a transition state from communicable to non-communicable diseases. According to the UNRWA health report, 2008, the prevalence of diabetes and hypertension is rising among the Palestinian population; the impact of NCDs on Palestinian people is costly both in terms of treatment and rehabilitation (MOH, 2005).

Traditionally the care provided to the Palestinian patients depends solely on professionalism; patient's perception of care, expectations and level of satisfaction with the services provided which reflect the quality of care has been infrequently addressed. Pawar (2005) stated that we can learn the way of increasing patients'- doctors' relationship from other fields such as sales; he also pointed that when trust builds between patients and physicians, they will be more likely adherent to treatment plans and follow advice (Pawar, June 2005).

Understanding the determinants of patients' satisfaction should help policy and decision makers to implement programmes in the line of patient's needs as perceived by patients and service providers (Aldana et al, 2001). With global shift towards a patient centred care, we have to improve the quality of services we provide to our patients, especially in patients with chronic diseases who need a long, integrated and comprehensive care.

One of the significant trends in the development of modern healthcare is the involvement of patient in the management of their care and treatment. However, it is important to acknowledge that the experiences of patients of health care vary considerably. Some may have

an occasional intervention while others have a more permanent and long term relationship with a service provider depending on the nature and extent of their need such as patients with chronic diseases (Irish Society for Quality and Safety in Health care-ISQSH, 2003). Studies reported that a satisfied patient is more likely to utilize health services, comply with medical treatment, and continue with the health provider (Baker, December 1990).

Client satisfaction is considered one of the pillars of quality improvement process; this study will assess the degree of client satisfaction with NCDs services provided by the UNRWA and its impacts on their health, aiming at improving the quality and contributing to reducing mortality and morbidity among them.

1.4 Aim of the study

The aim of this study is to assess the level of satisfaction among non-communicable disease patients with the NCDs services provided by the UNRWA in GS; and subsequently, suggesting measures for improving NCDs management practices and thus contributing to reducing mortality and morbidity among them.

1.5 Objectives

- To assess the level of satisfaction among patients attending the UNRWA's NCDs clinics.
- To identify the main domains/factors constituting NCDs patient satisfaction.
- To examine the relationship between clients satisfaction and the health status of the concerned patients.
- To determine the relationships between satisfaction and demographic and diseases related variables.
- To recommend suggestions to the decision makers and health professionals regarding improvement of the quality of NCDs services.

1.6 Research Questions

1. What is the current level of satisfaction-dissatisfaction among patients attending the NCDs clinics at the UNRWA health centres in GS?
2. What are the main factors affecting patients satisfaction with the offered NCDs services at UNRWA health centres in GS?
3. Is there a difference in the level of patient's satisfaction with the offered NCDs services at the UNRWA health centres in relation to demographic characteristics such as gender, age and marital status?
4. Is there a difference in the level of patient's satisfaction with the offered NCDs services at the UNRWA health centres in relation to socioeconomic characters such as educational level and employment status?
5. Are those patients whom disease is controlled according to the UNRWA's disease control criteria, more satisfied with the offered NCDs services than those who are not?
6. What are the lessons we can learn from this study?
7. How the decision makers and health professionals will benefit from this study?

1.7 Context of the study

To plan and improve health care services, it is important to understand the nature of the population served. This study was conducted in GS, some information about the Palestinian population, their health status, health system and service delivery are delivered in the following paragraphs.

The GS is a narrow band of land located on the south of Palestine, constituting the coastal zone of the Palestinian territory along the Mediterranean Sea between Egypt and the Palestinian territories occupied in 1948. It is 45 Kilometres long and 5-12 kilometres wide with an area of 365 square kilometres (Palestinian Academic Society for the Study of International Affairs- PASSIA, 2008). Currently, the Gaza Strip is composed of five governorates: the North, Gaza City, the Mid Zone, Khanyounis and Rafah**.** The total population in the WB and Gaza is 3,761,646 million of them 1,416,543 million (67.9% are refugees) are living in GS with a population density of 3988 persons/Km2 (Palestinian Central

Bureau of Statistics- PCBS, 2007). The Palestinian society is considered a young population with 49.3% under 14 years (PCBS, 2007).

The political and economical situation for around 1.5 million Palestinians in the GS became worse than it has ever been since the start of the Israeli military occupation in 1967. Israel still holds overall control, over the GS. It has the upper hand over borders, movement of goods and travellers in and out of Gaza, particularly the Palestinian themselves. It also controls trade, the commercial market, water, the main sources of energy the means of communications and the overall security. Hence, it still has a hold over the Palestinian economy. The war on Gaza that started on December 27 2008 has further deteriorated the already miserable situations (Palestinian Non-Governmental Organizations-PNGO, 2009). This situation has manifested itself in an increased unemployment rates-more than 50%. Poverty continues to affect large numbers in GS and WB. As at the third quarter of 2008, 51% of Palestinians were living below the poverty line (48% in the WB and 56% in the GS) and about 19% lived in conditions of extreme poverty and therefore were unable to meet their basic needs in terms of food, clothing and housing (WHO, 2009).

The last disastrous war on GS started on December 2008, has dramatically affected the health status of the Palestinian people, increasing number of casualties and disabled people, it also affected the accessibility of both patients and service providers to health centres. In addition closure of the borders has led to the shortage of drugs and other medical supplies and restriction of movement of people in and out of Gaza, all contributed to the deterioration of the conditions of many patients and in many cases, resulted in death (WHO, 2009). On the other hand the Palestinian division and political conflict has affected the population to meet their basic health needs.

On 13th of September 1993, the Palestinian Liberation Organization (PLO) and Israel signed the declaration of principles of peace. As a result of this agreement the Palestinian authority took the responsibility for health in GS on 17th of May 1994. Since then the Palestinian ministry of health began on programmes aiming at ensuring the continuity of services and to rehabilitate the existing systems, equipments and infrastructure. Today and after almost 17 years of Oslo agreement, there are four major health providers in Palestine, the MOH,

UNRWA, NGOs and the private sector.

The Primary Health Care sector (PHC) is a major component of the Palestinian health care system; which provides health care to all Palestinian people. PHC centres offer accessible and affordable health services for all Palestinians regardless the geographical locations (MOH, 2005). In GS, there are 58 Governmental health centres, 20 UNRWA health centres (18 main plus 2 sub centres), 31 owned by the NGOs (MOH, 2005 & UNRWA, 2008).

Despite all the measures taken by the UNRWA to expand its services, the number of health personnel remains short. In Gaza Strip, there are 13.7 doctors, 27.5 nurses and 3.3 dental surgeons per 100,000 registered refugees. In addition to these figures, the average daily medical consultations per doctor are 103 in GS and 89 in WB (UNRWA, 2008). These figures explain the overloaded UNRWA health centres, and point out to an important obstacle to a better quality of care provided to refugees. It is obvious that recruiting more people demand more fund from the UNRWA which already suffers a fund raising problems.

NCDs services are mainly provided by MOH and UNRWA with few NGOs providers. Because the focus is on the UNRWA clinics, the researcher provides details about NCDs services provided at UNRWA health centres.

1.8 UNRWA's Non-communicable diseases services

The UNRWA NCDs services is considered as one of the main health services provided to the Palestine refugees in all fields of operation, in GS for example, 18 health centres out of 20 provide NCDs services. The programme focuses mainly on diabetes and hypertension; this is largely due to limited resources. By the end of 2008, 49528 patients were registered in NCDs clinics in Gaza, the prevalence of diabetes and hypertension among population served 40 years and above 12.7 and 18.9 respectively, the mortality rate in all NCDs patients was 1.5%. Additionally the late complications rate is 11.3% in all NCDs patients (UNRWA, 2008).

Although UNRWA is trying its utmost efforts to bring these diseases under control, still the gap between the expected prevalence rates and cases under supervision requires special efforts to accelerate early case-finding activities in order to detect these diseases well ahead the need

to meet the high cost of treating their complications/disabling consequences. Most prominent NCDs are linked by common risk factors related to life style. Activities to prevent these diseases should therefore, focus on controlling the risk factors in an integrated manner.

The UNRWA intervention strategy to prevent and control NCDs consist of three elements: the first, is the community health education, the second element is early detection of the cases of both diabetes and hypertension by screening individuals at risk of developing one or both of these conditions. The third element, through effective case management of patients suffering from diabetes and hypertension to achieve acceptable control of their disease and promote healthy life style in accordance with UNRWA technical guidelines and standard management protocols (UNRWA, 2008).

The NCDs services at UNRWA health centres have exceeded the diagnosis and management of those patients. In addition to the regular medication provided to the NCDs patients, it also supplies them with certain other drugs (on special request) based on individual case assessment, especially for those patients who underwent cardiac intervention procedures, and patients with other diseases (i.e. patients' with Hyperthyroidism, and young children with Epilepsy, etc.). In addition, introducing Insulin Analogues for children with type 1 diabetes, this was considered as a great shift in management of this disease as it eased the children lives and greatly improved their control status (UNRWA, 2007).

Although UNRWA is maximizing its efforts in prevention and management of NCDs, a gap still exists between the services provided and patients' expectation which has not previously been fully addressed. However, with the newly implemented paradigm, concepts related to quality like availability, flexibility, efficiency and effectiveness, and client satisfaction are recently seriously addressed. Improving the quality of health services provided to Palestine refugees will narrow this gap and eventually improves the health status of the concerned patients and contributing in reducing mortality and morbidity among them.

1.9 Definition of terms

1.9.1 Satisfaction : Pascoe (1983) defined patient satisfaction as a general reaction of the recipient of health care in significant areas of structure, processes and outcome of his

experiences with health services, this reaction is internal, singular and is expressed through observational changes in patient behaviour**.**

1.9.2 Level of satisfaction

In our study level of satisfaction referred to the extent to which patients are happy and have positive attitudes towards the services they received.

1.9.3 Chronic non-communicable diseases

Diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another(WHO,2005). For the purpose of our study focus will be only on diabetes and hypertension as these are the primary targeted chronic diseases at UNRWA.

1.9.4 Non-communicable Diseases Clinic

NCDs clinic is operationally defined in this study as the clinic that provides NCDs services including diagnosis and management at the UNRWA health centres.

1.9.5 Diabetic patient: Diabetic patient is operationally defined in this study as a patient with diabetes who is registered and receiving care at the UNRWA's NCDs clinics.

1.9.6 Hypertensive patient: Hypertensive patient is operationally defined in this study as a patient with elevated blood pressure who is registered and receiving care at the UNRWA's non-communicable diseases clinics.

1.9.7 Big NCDs clinic: is operationally defined in this study, as the clinic that has more than 3000 registered patients with diabetes, hypertension or both.

1.9.8 Small NCDs clinic: is operationally defined in this study, as the clinic that has less than 3000 registered patients with diabetes, hypertension or both.

1.10 Layout of the study

1.10.1 Chapter one: Introduction

As mentioned earlier in this chapter, the researcher gives brief background about the study, justification of the study and the aim of the study. In addition, the researcher points to the objectives and the questions of the study. Moreover, the researcher provides some details about the context of the study.

1.10.2 Chapter two: Conceptual framework and Literature review

The conceptual framework is the set of concepts, terms and relationships within which the problem is formulated and solved. It is the foundation on which the research was done. The review aims to identify a theoretical framework within which the concepts of patients' satisfaction can be analyzed and discussed. Moreover, it aims to explore the origins of measuring patients' satisfaction with the health service and identify methods that could be employed to measure satisfaction in health services field.

1.10.3 Chapter three: Methodology of the study

The methodology chapter explains the methodology used in this study. The researcher explains the selected study design, sample, sample process and ethical considerations. After that the instrument, method of validation, pilot study and data collection were discussed, then illustrated the psychometric properties of the questionnaire. In this chapter the researcher depicts the methods of analyses, eligibility criteria and the limitations of the study.

1.10.4 Chapter four: Results and discussion:

At this chapter the researcher presents the findings of the data analysis. Next, the researcher discusses the aspects of the findings that are consistent with previous researchers and theoretical explanations and those that are not in agreement. The researcher reports the limitations of the study that occurs during the study that may influence the results.

1.10.5 Chapter five: Conclusions and recommendations

The study conclusions are the researcher's attempt to show what knowledge has been gained by the study and an attempt to generalize the findings. Recommendations concerning extension of the research study should answer the question, "What comes next". The researcher proposes the next steps that need to be taken.

Chapter two

Conceptual framework

and

Literature review

2.1 Conceptual framework

Evaluation of the services is of great importance in the quality improvement process. It is not only technical related factors which forms the body of the quality, there are other issues directly related to quality. Patient satisfaction is an important indicator of the quality assessment in health services. Consequently, quality work includes investigations that map out patient satisfaction with health services. To improve the quality of NCDs services at UNRWA, UNRWA health providers need to know what factors influence patient satisfaction. The aim of this literature study was to describe the influences on patient satisfaction with regard to the context of services provided at UNRWA NCDs clinics. The review of the literature helps the researcher to take the following domains affecting patients' satisfaction:

2.1.1Domains of satisfaction

2.1.1.1 General impression

This refers to the degree of general impression of the patients with the services provided to them collectively; it measures the overall impression about the staff, the quality, the environment and finally the NCDs services in general.

2.1.1.2 Accessibility of care

This refers to the degree of how the NCDs services at UNRWA are accessible to patients, both in terms of physical and accessibility to information. Additionally, access is a major concern in health care policy and is very frequently used word in discussions of the health care system.

2.1.1.3 Communication and interpersonal relations

This refers to the ability of the staff to communicate and interact with patients in proper professional manner. It reflects to what extent the staff succeeded in exchanging related information with clients, and also refers to the degree of respect shown to the patients by the NCDs health providers.

2.1.1.4 Clinic environment

Refer to the physical setting of the facility in terms of cleanliness, availability of comfortable seats and proper waiting areas. It also refers to the degree of privacy and confidentiality felt by the patients as a result of the physical arrangement of the facility.

2.1.1.5 Technical quality

This refers to the ability of the UNRWA health providers to deliver a good quality NCDs care to the patients. It reflects the professionalism in disease management; follow up of detection and prevention of complications. In addition it refers to the patient's centred care.

2.1.1.6 Convenience

The convenience domain refers to the extent of convenience expressed by patients regarding waiting time before being served, noise and crowdedness.

2.1.2 Factors affecting satisfaction

Patients' satisfaction was determined by their expectation of the NCDs care they suppose to receive and the care they actually received. These two perspectives were crucial for patients' perception of being satisfied or dissatisfied. There are factors that might have an influence on patients' satisfaction; some are external factors while others are disease related. Moreover these factors will have an effect on the dimensions of patients' satisfaction. These factors are:

2.1.2.1 Socio-demographic factors of the NCDs patients

Satisfaction could be influenced by age, gender, marital status, place of living, educational level and current employment status, all of these factors could have an impact on satisfaction.

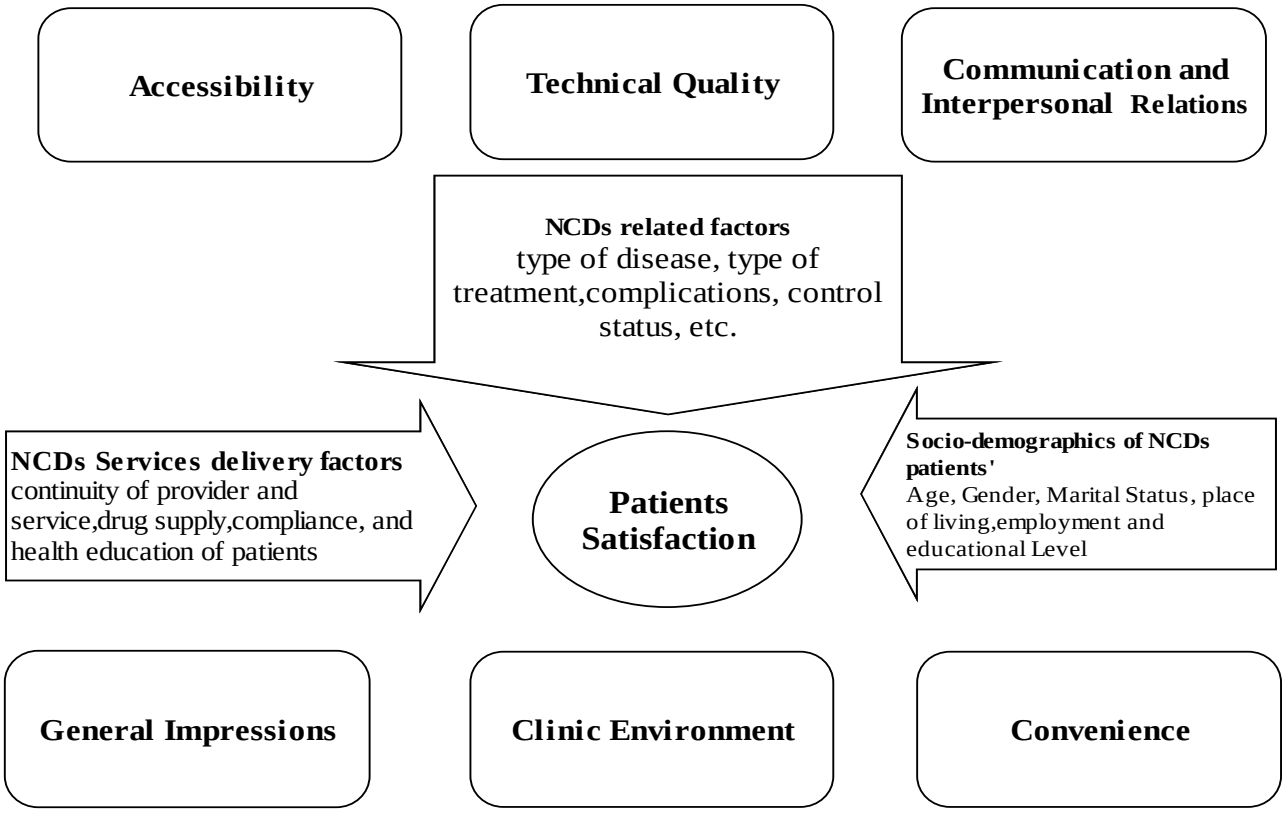
2.1.2.2 NCDs related factors

It is not socio-demographics can affect patients' satisfaction, other factors related to the disease itself or its complication may play role, such as type of disease, disease duration, and type of treatment, control status of the disease and regularity of visits.

2.1.2.3 NCDs service delivery factors

In addition to the socio-demographics and disease related factors, the mode of service delivery have an impact on patients satisfaction which including plenty of factors such as, continuity of the provider, health education of patients, drug supply, continuity of the service, access for disabled, and patient's compliance with the given instructions.

Diagram illustrates dimensions of patients' satisfaction with NCDs services at UNRWA health centres and factors affecting it.



2.2 Literature review

2.2.1 Non communicable diseases

NCDs are usually thought of as chronic conditions that do not result from an acute infectious process. These conditions cause death, dysfunction, or impairment in the quality of life, and they usually develop over relatively long periods. Initially these diseases are generally asymptomatic but later on when disease manifestations develop symptoms start to appear and there may be a protracted period of impaired health. Generally, these conditions or diseases result from prolonged exposure to risk factors many of which associated with personal behaviours and environmental factors (UNRWA, 2009).

Urbanization, population ageing and behavioural changes, and the failure of disease prevention, diagnosis and management have contributed to the growing burden of NCDs. Common, preventable biological risk factors (such as high blood pressure, high concentrations of total cholesterol and overweight) and related behavioural risks (unhealthy diet, physical inactivity and tobacco use) lead to four major conditions: cardiovascular disease, cancers, chronic obstructive pulmonary disease and type 2 diabetes(UNRWA, 2009).

Effective intervention measures are available for the prevention and management of NCDs, but are not used widely or equitably. Much of the cost of diagnosis and management will fall on developing countries, many still suffering from under-controlled communicable diseases, and the expected overall costs for countries suffering this double burden of disease are high. Spending on chronic illnesses almost accounts for 70% of all medical spending, much of this in direct payment by patients, so contributing to family poverty. Meeting these challenges requires commitment and comprehensive responses combining surveillance, prevention and management (UNRWA, 2009).

To bring these diseases under control there must be integrated community-based intervention programmes. The community approach in CVD prevention has a high degree of generalization, cost-effectiveness due to: mass communication methods, ability to diffuse information successfully, and potential for influencing environmental and institutional policies

that shape health. Without close collaboration between the community and the national health authorities it is difficult to sustain any measures taken to control NCDs (UNRWA, 2009).

Health systems need to be reoriented to include the expanded mandate of cardiovascular diseases (CVD) control. Surveillance needs to be established. The need for integrated NCD prevention and control programmes is supported by biomedical and epidemiological findings. Interventions, which aim to reduce multiple risk factors, are more beneficial and cost-effective than interventions that target one risk factor. This calls for effective and integrated approaches for smoking control, adoption of healthier eating patterns and promotion of physical activity. Comprehensive measures are needed in which primary health care has a key role.

Today, non-communicable diseases (NCDs), mainly cardiovascular diseases, cancers, diabetes and chronic respiratory diseases, represent a leading threat to human health and development. These four diseases are the world's biggest killers, causing an estimated 35 million deaths each year, 60% of all deaths globally, with 80% in low and middle income countries (WHO, 2008). The magnitude of NCDs is no longer the case only in developed world, the lives of too many people are cut short by the chronic diseases such as, heart diseases, strokes, chronic respiratory diseases and diabetes, four out of five deaths due to NCDs are in developing world(WHO, 2005).

According to the global report of preventing chronic diseases (WHO, 2005), globally of 58 million deaths in 2005, 35 million will be due to NCDs, and this number is expected to rise by 17% in the next 10 years. At the same time, child overweight and obesity are increasing worldwide, and the incidence of type2 diabetes is growing. This is a very serious issue for both public health and economies affected.

NCDs and especially CVD represent a major health burden in developed countries and a rapidly growing problem in the developing countries. Globally, every third death could be attributed to CVD, and coronary artery heart disease (CAHD) remains number one killer in the world (WHO, 1999). Unhealthy lifestyles or adverse physical and social environments are the major risk factors for CVD and other health events leading to them, such factors as unhealthy nutrition, smoking, physical inactivity, excess use of alcohol and psychosocial stress are among major lifestyle issues.

Although much still to be learnt in the future, very much is already known to help prevention. The main question for NCDs prevention is not "what should be done", but "how should it be done". The key question is how the existing knowledge best can be applied for effective prevention in real life (Puska, 2002).

The WHO developed a medium strategic action plan (2008-2013) to tackle the world's biggest killers and addressing key challenges to global development in the 21st century. The Action Plan sets out six objectives, actions to be implemented over the six-year period of 2008–2013, and performance indicators to guide the work of WHO at national, regional and global levels, with a particular focus on low and middle income countries and vulnerable populations. The plan sets the global strategy for the prevention and control of non-communicable diseases (WHO, 2008).

The first objective of this plan is to raise the priority accorded to NCDs in development work at global and national levels, and to integrate prevention and control of such diseases into national policies across all government departments. This could be achieved through implementing programmes that tackle the social determinants of NCDs with particular reference to health in early childhood, the health of the urban poor, fair financing and equitable access to primary health care services (WHO, 2008).

Secondly to establish and strengthen national policies and plans for prevention and control of NCDs. Review and strengthening evidence-based legislation, together with fiscal and other relevant policies that are effective in reducing modifiable risk factors and their determinants. The third is to promote interventions to reduce main modifiable risk factors for NCDs such as tobacco use, unhealthy diets, physical inactivity, and harmful use of alcohol. Health education and legislation are the important measure in achieving this objective (WHO, 2008).

The fourth objective is to promote research for prevention and control of NCDs. Health organizations has to be interested to carry out such researches and to encourage the establishment of national reference centres and networks to conduct research on socio-economic determinants, gender, and the cost–effectiveness of interventions, affordable technology, health-system reorientation and workforce development.

The fifth objective is to promote partnership for prevention and control of NCDs, through establishing effective partnerships with other organizations and develop collaborative networks that involve key stakeholders, as appropriate. The sixth objective is to monitor NCDs and their determinants and evaluate progress at the national, regional and global levels. Contribute, on a routine basis, data and information on trends in respect of NCDs and their risk factors disaggregated by age, gender, and socioeconomic groups; and provide information on progress made in implementation of national strategies and plans (WHO, 2008).

2.2.2 Definition of satisfaction

Satisfaction, like many other psychological concepts, is easy to understand but hard to define. No one standard definition of satisfaction was observed in the literature due to the fact that patient satisfaction is a multidimensional concept that is difficult to be accurately defined and measured (Anderson, Maloney and Bread, February 1998; Schomer and Kucukarslan, December 1997; Staniszewska and Ahmed, February 1999).

Despite the lack of consensus and clarity in defining satisfaction, there is always some form of unity in defining it. This is evident in studies that do not define satisfaction or make reference to its conceptual uncertainty (Walsh and Walsh, February 1999; Shipman, Payne, Hooper, and Dale, June 2000).

In the field of health services, the most widely accepted definition is that, patient satisfaction with care is the degree of convergence between the expectations patients' have of ideal care and their perception of the care they get (Anastasios, Elizabeth, and Chryssoula, May 2004). Oliver (1993) defined satisfaction as a summary of psychological state that results from the confirmation or non confirmation of expectations when compared to perceptions of a discrete episode of contact with an organization.

Another approach to define the concept of satisfaction derives from two factors; outcome and process. The former approach emphasizes the results from consuming experience. The later one extended to the notion that satisfaction involves states that not limited to mere satisfaction and can be described as a process (Oliver, 1993).

Staniszewska and Ahmed (1999) emphasized that to establish theoretical modelling and valid instrument, firstly, it is important to define and understand satisfaction and expectation. Furthermore, they added that few studies have defined and measured satisfaction within a theoretical model (Staniszewska and Ahmed, February 1999).

Sitzia and Wood (1997) defined satisfaction as fulfilling expectations, needs, or desires. Crow and colleagues (2002), in their review of literature on patient satisfaction stated that, two conclusions can be derived from this definition; the first that satisfaction doesn't involve superior service, only adequate and acceptable service, the second, satisfaction is a relative concept, which means what satisfies one person may dissatisfy another(Crow *et al*, 2002).

Satisfaction is not some pre-existing phenomenon waiting to be measured, but a judgment of people's experience. A simple and practical definition of satisfaction would be the degree to which desired goals have been achieved (ISQSH, 2003).

2.2.3 Concept and values of satisfaction

Patient satisfaction is a general reaction of the recipient of health care in significant areas of structure, processes and outcome of his experiences with health services (Pascoe, 1983). This reaction is entirely internal, reflects single opinion and is expressed through observing behavioural changes of patient. According to Guzman, Sliepcevich and Lacey (1988), patients' satisfaction is the result of their interactions with health care which, partly, determines the future use of health services they will make, and their compliance with their therapeutic treatment on the other (Guzman, Sliepcevich and Lacey, December 1988).

Petersen (1988) maintained that satisfaction is a general concept the patient has of the way the service is provided irrespective of the result or the appropriateness of the care (Petersen, May 1988). According to Smith (1992), patient satisfaction is a combination of perceived needs, expectations and experiences of health care (Smith, September 1992).

The literature points that attitude whether positive or negative is the evaluation of facts, objects or people, it includes three elements; the cognitive, the emotional and the behavioural in contradiction to perception, which refers to the process of organization and interpretation of

external stimuli with the aim to give purpose to the environment and which can be influenced by the attitudes of each individual (Robbins, 1993).

The concept of satisfaction can be categorized into several categories. All agreed that, clients' satisfaction demonstrates that satisfaction judgments are influenced by both emotional responses and cognitive disconfirmation (Oliver, 1993).

When services are considered as a commodity, client satisfaction will be viewed as an individual's emotional and cognitive reaction to his or her evaluation of that commodity. Thus, the feeling of satisfaction arises when clients compare their perceptions of the performance of a product or service to both their desires and expectations (Kim, Kols and Mucheke, March 1998).

Satisfaction has been associated with need fulfilment, for example, should a patient need pain relief, yet not receive it, both the patient and their family may express dissatisfaction This may also be the case where relatives' needs are unmet. The problem arises when there are disagreements between patients and their relatives regarding levels of satisfaction. This is especially so in hospital care, where families may be asked to act as representatives or proxies for patients in assessing satisfaction. Proxy responses may, understandably, be biased towards the relative's perception of the care rather than the patient's, or indeed of the relative's views on their own experiences of care. The use of retrospective proxy measures of satisfaction after bereavement may affect the type of information given and influence whether the information accurately reflects patient experience and service quality (Wright, 1998).

It has often been assumed that there is a relationship between satisfaction and the fulfilment of expectations. People are satisfied when they get what they expect, or better than they expect. However, others argue that there is little evidence to support this claim and that some research data can refute the proposed link between expectations and satisfaction (Medigovich, Porock, Kristjanson, and Smith, 1999).

Staniszewska and Ahmed (1999) suggest that this inconsistency can be explained, at least in part, by the varied methodological approaches adopted to study the relationship between

satisfaction and expectation fulfilment, and also by the different dimensions of expectations that have been used (Staniszewska and Ahmed, February 1999).

Compounding these problems is the fact that expectation, like the concept of satisfaction, is difficult to define (Williams, Weinman, Dale, and Newman, June 1995). It is, perhaps, unsurprising that findings of studies that attempt to establish the relationship between expectations and levels of satisfaction provide very different pictures.

Some have found that satisfaction levels were not affected by unmet expectations, while others have found that levels of satisfaction are directly related to the met expectations (Williams, Weinman, Dale, and Newman, June 1995). If indeed, that satisfaction levels are determined by fulfilment of expectations, then it is questionable whether satisfaction surveys actually highlight good quality care or whether they simply indicate a better experience than was expected. This may be the case, for example, when patients are moved between organizations that have different standards or philosophies of care.

Further, various factors may play a role, many of them are external to the health care area, for example, ease of access to the hospital by public transport (Lecouturier, Jacoby, Bradshow, Lovel, and Eccles, July 1999). Satisfaction surveys may, therefore, not measure satisfaction with services or care, but entirely something else. Unless, satisfaction has been defined and clarified, there can not be assurance that measurement tools and the studies using them are measuring satisfaction. It is difficult, therefore, legitimately to claim that these tools are satisfaction measures.

Patient satisfaction is an attitude, a person's general orientation towards a total experience of health care. Satisfaction comprises both cognitive and emotional facets and relates to previous experiences, expectations and social networks (Keegan and McGee, 2003).

Thom, Hall and Pawlson (2004) discussed the difference between patient trust and satisfaction, trust is related to, but conceptually different from, the more familiar concept of satisfaction with the physician. Satisfaction is based on past experience, while trust is an expectation of perceptions about the physician's motivations. Trust has a strong emotional component not present in future behaviour. Although satisfaction refers to the patient's

opinions of the physician's actions, trust refers to the relationship between the physician and patient that is based largely on satisfaction. Patients may be satisfied with each visit but still may have not established a sense of trust. Conversely, trust in a physician may be maintained even if a particular visit is not satisfactory.

The concept of satisfaction overlaps with similar themes such as happiness, contentment, and quality of life. Several studies have attempted to define satisfaction, Linder-Pelz (1982) emphasized the importance of defining satisfaction, she stated that, '*we need to understand the concept of satisfaction before we can really explain why certain factors cause it and others are caused by it'*.

Patients' involvement in the decision of their management is an important issue. Although in our country this has not been addressed, it is vital if we are really concerned about improving the quality of the health care here within the given resources and service providers.

At the time that other industries have been paying undue attention to customer satisfaction for years. "Health care is the only industry, service or manufacturing that for years has said, 'Let's leave the customer out of it'. Doctors thought that health care is a special thing, and they are the only people who can understand how things can and should be done. But that is absolutely prehistoric thinking. To ignore the input from the patient, to ignore the client, to say client's desires are irrelevant is far away from today's reality (White, January 1999). Furthermore, White adds, the truth about satisfaction surveys, they help in identifying ways of improving practice, resulting in better care and happier patients, it also shows staff and community that you are interested in quality, and demonstrates that you are seeking improvement.

Despite the fact that satisfaction is not the only measure of assessing quality of care from patient's perspective, it is predominant in such studies. However, most reviews of the literature have been careful while using it, as there is rarely any theoretical or conceptual development of patient satisfaction, little standardization, low reliability and uncertain validity of the measure (Crow et al, 2002; Morales, 2001).

Several satisfaction studies subdivide their measure on the basis of Donabedian's classic differentiation of structure, process, and outcome (Donabedian, September 1988). Structure is

the patient/consumer's rating of the physical environment and physical facilities in which the service occurs. Process measures address, for example, the patient's rating of personal interactions with staff and of staff with each other. Specific attributes include, for example, responsiveness, friendliness, empathy, courtesy, competence, and availability. Outcome-related measures, ask about the patient's perception of the results of process, including symptom reduction or resolution, improvement in functioning, or cure. It is clear that Donabedian was attempting to categorize criteria for assessing the quality of health care, which has been found to be very useful to various kinds of health professionals.

Meredith and Wood (1995) have described patient satisfaction as 'emergent and fluid'. Satisfaction is achieved when the patients' perception of the quality of care and services that they receive in healthcare setting has been positive, satisfying, and meets their expectations. The concept of patient involvement in evaluation of health care is not new; studies of patients' satisfaction go back to 1950's in the United States of America in a study conducted by Abdellah & Levine, and the 1960's in Great Britain by McGhee & Cartwright (Staniszewska & Ahmed, February 1999). However, over the last few years, there has been a growing attention in further evaluation of the care from patient's perspective through measurement of satisfaction.

Person centred health care respects the dignity and value of each person. It is entirely desirable that the views of patient should be sought on their experiences and expectations of health care. People centred health system, identifies and responds to the needs of individuals; is planned and delivered in a coordinated way; and helps individuals to participate in decision making to improve their health (Grimes, 2003). Carlson and colleagues (2003) pointed that patient satisfaction along with improvement in the health status has become an important measure in assessing the quality of health care in an outcome based health care environment (Carlson *et al.*, March 2003).

With diverse and changing health needs of individuals and societies in general, people centred care must have dynamic and integrated structure. This structure will empower people to actively participate in decisions related to their own health (Department of health and children- DOHC, 2001). There is growing evidence that links consumer feedback and

participation in decision making in individual care leads to improvements in health outcomes (England and Evans, June 1992), and to stronger therapeutic alliances (Fallowfield *et al.*, September 1990).

Effective consumer feedback strategies, Lead to more accessible and effective health services (Draper and Hill, 1995). Make organizations more aware of significant areas of dissatisfaction with care and services (Ovretveit, 1998). Give staff new insights into how people perceive aspects of their care (Draper, 1997) and can increase consumer confidence.

2.2.4 Measurement of satisfaction

A debate surrounds whether qualitative or quantitative methods should be used to assess satisfaction. The methods adopted have to be determined by the research questions asked, but satisfaction data have been collected using a variety of methods ranging from interviews to self-administered questionnaires. However, the most common method of measuring satisfaction is with a closed-question format questionnaire (Dougall, *et al.*, January 2000).

Questionnaires are relatively cheap and can be short and administered anonymously, but they must consider the topics under study and the participants. In hospital care, where patients are often very frail and ill and families are emotionally distressed, patients may feel too ill and family members too upset to complete a questionnaire. Surveys can sometimes overlook the really important aspects of people's lives. This poses particular difficulties for serious cases and their relatives, who may wish to express feelings and thoughts about service provision from a holistic viewpoint. In order to avoid the reductionism associated with quantitative methods, qualitative methods have been proposed (Coyle and Williams, May 2000; Dougall, *et al.*, January 2000).

There is little agreement on the choice of tools. Most studies use more than one satisfaction tool, and numerous assessment tools were identified in the papers reviewed. Commonly, these tools are used as a basis upon which service- or study-specific tools can be built. Most satisfaction assessment tools are amended from the original to take account of the participant group and study setting (Dougall, *et al.*, January 2000).

May and colleagues conducted a study to assess patients' satisfaction with anaesthesia services in Canadian hospitals concluded that, the currently available studies of patient satisfaction are of questionable value. Only rigorous methods and reliable instruments will yield valid and clinically relevant findings of this important issue in anaesthesiology. He pointed out that, possible explanation for high positive results is that there is always a researcher induced bias in measuring satisfaction. In other words, they do not allow elements of dissatisfaction to emerge from their surveys. There is always a desire towards positive results and hence researchers develop the Questionnaires in a way achieving their aim towards positive findings. They do not offer open-ended questions where patients can express dissatisfaction concerning elements covered or not by the survey (May *et al*., 2001).

Adopting a qualitative approach can enable understanding of patients' frames of reference and ensure that their views are adequately represented. Qualitative methods can situate people's views on satisfaction within a wider context, but also have limitations. Face-to-face interviewing, for example, may inhibit honesty by patients or families for fear of repercussions, and may be time-consuming and draining for frail patients. To get the best from each approach and to avoid its limitations, it may be better to use a combination of methods.

2.2.5 Dimensions of satisfaction

Several satisfaction studies have identified different dimensions of satisfaction; Abu Shuaib (2005) conducted a study to assess women perception and experience of childbirth services at governmental hospitals in the Gaza Strip. The researcher identified these dimensions of satisfaction, approach of women care, approach of baby care, counselling, attitude and respect, information and communication, decision participation, privacy and ward environment (Abu Shuaib, 2005).

Jenkinson, and colleagues (2002) conducted a study to determine what aspects of health care provision are most likely to influence satisfaction with care willingness to recommend hospital services to others and secondly, to explore the extent to which satisfaction is a meaningful indicator of patient experience of healthcare services (Jenkinson, December 2002). The researchers identified these dimensions of satisfaction; information and education,

coordination of care, physical comfort, emotional support, respect patient preferences, involvement of family/friends, and continuity of care.

A study to assess inpatient satisfaction with physician services at King Khalid University Hospital in Saudi Arabia. The researcher identified these dimensions: admission and diagnosis, communication, and care of the patient (Al-Doghaither, May 2004).

Abu Salleek, (2004) conducted a study to assess the level of clients' satisfaction with nursing care provided at selected hospitals in Gaza Strip, and identified the major organizational and demographic variables. The researcher explored six dimensions of satisfaction with nursing care; information and interaction, availability/attentiveness and openness, Comfort and environment, nurses' skills and professionalism, organizational culture, counselling and advising.

Margolis and colleagues (2003) conducted a study to evaluate the suitability of a patient satisfaction questionnaire to survey care consumers of traditional Arabic background in the United Arab Emirates. The researchers identify these dimensions; accessibility, continuity, humaneness, comprehensiveness, health education, effectiveness of services (Margolis *et al*., May2003).

Alasad and Ahmad (2003) conducted a study to examine patients' satisfaction with nursing care at a major teaching hospital in Jordan. The researchers identified these dimensions; respect of patients' values, coordination, integration and information flow, information and education, physical comfort, emotional support, involvement of family and friends, transition and a continuity.

A study was conducted by Abu Dayah (2000) to assess the level of satisfaction of Palestinian people of health services provided by the MOH clinic through exit interviews of the clients who seek medical services over one week period to select the desired sample. The domains of satisfaction were; patient involvement in the plan of health care, appropriateness of humanness and respect of medical staff, overall satisfaction of staff humanness and reception, overall satisfaction of diagnosis procedures, overall satisfaction of method of medical treatment,

easiness of services, appropriate constellation of services, overall satisfaction of clients' privacy and staff interest (Abu Dayah, 2000).

Another study conducted by Mousa (2000) presented some results related to client's satisfaction with family planning services in Gaza Strip in Palestine concluded that domains of satisfaction among Gaza family planning recipients includes attitudes and expectations, information and counselling, communication and interaction, mechanism of care and delivery of care. Also a study done in Palestine by Al Hindi (2002) explored the client satisfaction with radiology services in Gaza Strip. The researcher identified these dimensions of satisfaction, organizational culture, continuity and affordability, availability, communication and interaction, attitude and perception, comfort and privacy and approach of care.

Alkariri (2010) study, to assess patients satisfaction with the outpatients services at Alshifa Hospital, extracted five domains of satisfaction, access to care, physical environment, patient expectations, waiting time, information and interaction.

Fan and colleagues in their study to determine the extent to which chronic illness and disease severity affect patient satisfaction with their primary care provider in general internal medicine clinics, they concluded that patient's education and ability to cope with chronic conditions are more strongly associated with satisfaction with their primary care provider than disease severity. Further improvements in patient education and self-management may lead to improved satisfaction and quality of care (Fan *et al*., March 2005).

Furthermore they added, for many chronic medical conditions, current therapy may improve but not completely eliminate symptoms. Emotionally coping with chronic disease and managing symptoms may be as important as the degree of actual physical disability in determining satisfaction with care. Moreover, those patients who reported seeing the same physician always or most of the time had patient satisfaction scores that were significantly higher than those of their counterparts who did not see the same physician (Fan *et al*., March 2005). Additionally, several studies documented a direct relationship with a patient's decision to seek medical care, to comply with treatment, or to change providers and their satisfaction with their care (Sahin *et al*., February 2007).

2.2.5.1 Accessibility and patients' satisfaction

Direct accessibility is important to patients and affects their level of satisfaction with the services provided. A study in 18 European countries addressed the question, to what extent the direct access to health care services affects the level of patient's satisfaction with the GP services. The study concluded that, higher level of satisfaction was reported among patients who had a direct access to services than those with a gate keeping services (Kroneman *et al*., March 2006).

Furthermore, a study in eight European countries found that although patients in different cultures and health care systems have different views on certain aspects of care, they share similar expectations and values, particularly with respect to doctor/patient communication and accessibility of services (Grol *et al*., February 1999). Various studies have shown that satisfaction is related to technical and interpersonal competence, more partnership building, more immediate and positive non-verbal behaviour, more social conversation, courtesy, consideration, clear communication and information, respectful treatment, frequency of contact, length of consultation, service availability, and waiting time (Hall *et al*., July 1988). Moreover, Ware and colleagues (1983) argued that patient characteristics are the determinants of satisfaction, whereas interpersonal manner, technical quality, accessibility, cost, efficacy, continuity, the physical environment, and availability of resources are the components of satisfaction (Ware *et al*., 1983).

Patient satisfaction is particularly important in chronically ill patient as a measure of quality of care; chronically ill patients are likely to benefit from need assessment and the routine use of patient derived data in making decisions about the distribution, access, and content of long term care. Comprehensive evaluations of health care must involve assessments of outcomes and needs. It is only by including both these assessments that the process of care for patients with a chronic disease can be improved (Bos and Triemstra, December 1999). Patients who had difficult accessibility are less satisfied (Padberg and Padberg, January 1990).

Waiting time is considered one of the determinants of patients' satisfaction. Westaway and colleagues study, to determine the underlying dimensions affecting patients satisfaction in South Africa's primary health care settings, pointed that irrespective of the country setting

(developed or developing) the highest degree of dissatisfaction are with the waiting time which can reach to an hour or more (Westaway *et al*., August 2003).

2.2.5.2 Communication and patients' satisfaction

Having good communication skills are as important as technical ability in medical profession. The literature suggests that physicians can promote higher level of satisfaction by improving the way they interact with their patients. Perhaps one of the most valuable things physician should do is uncovering his patient's expectation. When he recognizes and addresses these expectations, satisfaction is more for both the patient and his physician (Rao, Weinberger and Kroenke, November 2000).

There is a consensus that the problems in patient-doctor communication are extremely common and adversely affect patient management, it has an impact on patient satisfaction, medical outcome and even medical costs (Ashbury, Iverson and Kralj, 2001). In their study of patient's commitment to their primary physician Leonard and colleagues stated that, one of the most interesting findings was the influence that the physicians with strong patient relationships have on their patient's health related behaviour (Leonard *et al.*, 2008). In another study, primary care visits characterized by higher levels of physician- patient agreement were associated with one-third higher medication compliance (Kerse *et al.*, 2004).

In a follow up-study, as the length of the relationship increased between the patient and provider, the scores on communication and accumulated knowledge of the patient from the physician and trust in the physician also increased (Parchman & Burge, January 2004).

Infante and colleagues (2004) concluded that GPs should consider the amount of time they spend with chronically ill patients, and their interpersonal skills and understanding of patients' needs. They need to be better informed about the benefits of patient self management and consumer organizations, and to incorporate them into their care. They also need to review how their clinic team can maximize the care of patients (Infante *et al.*, July 2004).

Alazri and Neal (2003) concluded that, there is an association between satisfaction with services provided in primary health centres and diabetes. This suggests that efforts to improve

the communication process can increase patients' satisfaction and contribute to the improvement in outcome. There was no relationship between overall satisfaction and factors like age, sex, duration of diabetes and the presence of complication. However, continuity and trust were strongly associated with high level of satisfaction; therefore focus should be more on these issues (Alazri and Neal, June 2003).

Patient-provider communication is essential for effective care of diabetes and other chronic illnesses. However, the relative impact of general versus disease-specific communication on self-management is poorly understood, as are the determinants of these 2 communication dimensions. A study done by Piette and colleagues found that 2 dimensions of patients' provider communication, general communication and diabetes specific communication are related but distinct facets of patients' communication experience and both have independent impacts on diabetes self care. Ideally improving both general and diabetes specific communication, still improving either of them can yield better self care. Furthermore, patients are receiving their diabetes care in their primary care centres, and patients with longer primary care relationship reported better general communication (Piette *et al*., August 2003).

In a study of Dutch type 2 diabetic patients, Narayan and colleagues (2003) found that in a general practitioner's setting, patient satisfaction depends first and foremost on the physician's attitude toward the patient and the degree of communication (Narayan *et al*., January 2003).

Studies have found that encouraging patients to express their ideas, concerns and expectations, this will result in more satisfaction and more likely patients will adhere to doctor's advices. This can only be done if doctors exhibit less dominance (Cecil and Killeen, October 1997). On the one hand, patient satisfaction can also be influenced by physicians' medical decision making, usually patients prefer physicians who understand and address their social and psychological status as much as their physical status (Sherbourne, *et al*., June 1999). On the other hand participation in decision making regarding treatment plans indicates the degree to which understanding of the disease has occurred, in addition to this it also reflects the quality of care provided.

A study in Japan, suggested that the majority of Japanese patients have a positive attitude towards participation in their treatment decision, provided that they are fully informed. To

conclude, physicians will give more patient satisfaction if they respond to patient's wish for participation in decision making (Sekimoto *et al*., March 2004). Ogden and colleagues (2004) concluded that patients are usually dissatisfied with consultation length with their physicians; they desire for longer consultation, this dissatisfaction can be managed by making consultation longer. Alternatively this also could be managed by making use of the given time and changing how it is spent. In particular, doctors who listen and try to understand their patient may make the patient feel more satisfied with the consultation length and subsequently more motivated to follow any recommendations for change (Ogden, *et al*., October 2004).

2.2.5.3 Technical competency and patients' satisfaction

The technical competency of the health provider is considered one of the most important determinants of patients' satisfaction. Hupecy and colleagues (2004) concluded that Expectations for care were influenced by providers' personal touch and caring, technical proficiency, and practice environment. On the other hand older adults could trust their provider as a person, but not be satisfied with the care received (Hupecy, *et al*., November 2004). Several studies have looked at the patients' assessment of their physician technical skills, the results were contradictory. Some have pointed that older patients are more satisfied with communication skills than technical expertise (Chang *et al*, May 2006), while other patients indicated that a physician's ability to make the correct diagnosis and craft an effective treatment plan were more important than his or her bedside manners(Otani , Kurz , and Harris, 2005).

Quality of physician care is especially important in the elderly population, as high quality medical care can prevent hospitalization due to chronic conditions (Blendon, *et al*., 2003). Insuring high quality of care is therefore an important goal to increase quality of life for those over 65 as well as decrease burden on the health care system. Physicians can enhance patients' perceptions of the quality of care by understanding the differences in perception and assessment of medical care that exist between the general and older population.

On the other hand, providers better understating to his patients condition is also important, this understanding along with the technical competency will have an impact on patient's health and satisfaction in particular with issues that patients use to judge the technical competence of

their physician. Effective referral also plays an important role in patient satisfaction; a study found that patients who were referred by their physicians were more satisfied with the referral's outcome than those who requested referral (Rosemann *et al.*, January 2006).

The longer time and fluctuating course of many chronic illnesses requires regular interaction between provider and patients. There is a need for long time relationship and continuity of care, regular meetings and follow up has been associated with improved outcome is a variety of chronic diseases (Wagner *et al*., November 2001). Further more effective chronic illness management calls for a delivery system design that encourages and enables productive interactions.

Russell et al., in their study of the determinants of patient satisfaction in chronic illness stated that in addition to positive relationship between satisfaction and demographics patients with RA and DM were highly satisfied with their primary care doctor. Scores were high among the 2 groups of patients for all 3 domains of satisfaction: interpersonal skills, technical quality, and access to care (Russell *et al*., October 2002). Furthermore, they added that self reporting of good and fair health among their study sample patients could explain the results of high satisfaction. It is also possible that their patients have adjusted to their chronic illness.

2.2.5.4 Physical environment and patients' satisfaction

Patients' satisfaction is not only determined by physicians' ability to provide good clinical care to patients, neither with his ability to communicate well or even accessibility to care, there are other issues that play a role is the process of assessing patients satisfaction. One of which is the physical environment. Patients' judgments regarding the quality of their care include perceptions of the following: the technical quality of their care, the provider's interpersonal skills, coordination, continuity, wait times, availability, and physical environment (Sahin *et al*., February 2007).

According to donabedian's classic differentiation of structure, process and out come many have based their satisfaction on his idea, structure was described as the clients rating of the physical environment and physical setting of the facility in which service is provided

(Donabedian, September 1988). Ware *et al*. (1983) described physical environment as a component of patients' satisfaction.

Westaway and colleagues (2003), in their study to assess patients' satisfaction in primary health care in South Africa pointed that, given the lengthy waiting times in South Africa's public health facilities; it is not strange that the presence of toilet, seat, and cleanliness in the waiting area are important determinant of patients' satisfaction. Additionally, maintenance of contact and follow up are particularly important to diabetic patients in the presence of complex demands of disease management and the long term consequences of poor blood pressure and glycaemic control (Westaway *et al*., August 2003).

2.2.5.5 Convenience and patients' satisfaction

A cross-sectional study was conducted at Kuta Blang Health Center in Bireuen district, Aceh Province, Indonesia. Regarding the patient satisfaction in terms convenience, courtesy, quality of care, and physical environment, almost all the items showed low level of satisfaction. The lowest was for convenience (18.0%), followed by quality of care (23.0), physical environment (26.5%) and courtesy (38.0) respectively. Out of all components, the highest percentage of patients showed satisfaction with courtesy. The study showed that medical care service should develop according to the needs and demand of patients (Nazirah *et al*, 2008). Another study done in Palestine to assess patients' satisfaction with the health services provided at Alshifa Hospital revealed that the waiting time domain reported the lowest level of satisfaction 58.8%. This could be attributed to the overloaded outpatients (Al Kariri, 2010).

2.2.6 Correlates of patients' satisfaction

Patient satisfaction is regarded as one of the desired outcomes of care, an element in health status, a measure of the quality of care, and 'as indispensable to assessments of quality as to the design and management of health care systems' (Donabedian, September 1988). It has been proposed that the effectiveness of health care is determined, to some degree, by satisfaction with the services provided (Hill, September 1992).

Patient satisfaction is dependent upon a variety of personal, cultural, socio-economic and health-related factors, set against a background of previous exposure to, and experience of, health care services. Many of these may not be readily amenable to change, but where deficiencies are identified, alterations in services might well be rewarded with more satisfied patients (Asadi-Lari, Packham and Gray, October 2003).

Studies of patient satisfaction have categorized these factors under 3 main categories. The first category included patient related factors, like socio-demographic, socioeconomic and patient's health status. The second, physician related factors, these include expectations, control, communication, decision making, time spent, technical skills, and physician's appearance. The third category included system related factors for example, the clinical team, referrals, and continuity of care (Thiedke, January 2007).

It is not only demographic and physician related factors affect patient satisfaction, other issues like system in which the care is provided also contributes to patients' satisfaction/dissatisfaction. Although doctors are patients first concern, they also value the clinical team works with the doctor. One study found that patient satisfaction was most influenced by the doctor's care; the empathy, compassion and willingness to help of other staff were the next important influence of patients' satisfaction (Otani, Kurz, and Harris, 2005).

2.2.6.1 Socio-demographic variables and patients' satisfaction

The importance of demographic and social factors remains controversial in determining satisfaction. Some studies stated that demographics are a minor factor in patient satisfaction (Hall and Dornan, 1990), while others stressed on its importance to be a major factor in satisfaction (Sixma, *et al.*, February 1998). Kong (2007) in a study of the differences in patient satisfaction with physicians between elderly and non-elderly, concluded that elderly patient were satisfied more than non elderly (Kong, *et al*., November 2007). Other studies related to age and satisfaction supported that older patient tend to be more satisfied with their health care (Thiedke, January 2007). Older adults were satisfied with their care when providers and practices met their expectations for care (*Hupecy et al*., November 2004). In her extensive study of the literature, Dr. Thiedke (2007) found that study of the effect of gender is

contradictory, with some studies showing that women are more satisfied and others show the opposite.

Most studies have found that individuals of lower socioeconomic status and less education tend to be less satisfied with their health care. However, one study found that frequent visitors to a family practice had lower educational status, lower perceived quality of life, and higher anxiety and depression scores and were more satisfied with their family physician (Kersnik, Svab and Vegnuti, September 2001).

Abu Saileek (2004) who examined the client's satisfaction with nursing care provided at selected hospitals in GS and identified that females represented higher percentage (52.2%), while males' percentage was 47.8%. Also the statistical analysis pointed that there are no differences between males and females in their level of satisfaction with nursing care.

Moreover, Abu Saileek (2004) study revealed that the respondents who were married showed higher percentage (65.3%), while unmarried percentage was 34.8%. The findings reported that there are significant differences in satisfaction level, between married and unmarried respondents, the married respondents reported higher level of satisfaction**.**

Sahin and colleagues (2007), study which was conducted in a teaching hospital in Turkey, to identify factors affecting patients' satisfaction. The study revealed that less educated patients have lower satisfaction than highly educated people. Hall and Dornan (1990) attempted to distinguish two possibilities; first that independent of the actual care received poor patients generally more accepting and more reluctant than rich patients to pass negative judgment, second that poor patients are treated in a less thorough and responsive manner.

2.2.6.2 System related variables and patients' satisfaction

Physician appearance seems to play a role in patient satisfaction, a study in New Zealand indicated that patients were more in favour of and satisfied with physicians who have in order, semiformal dress and smile, those with white coats, and those with a formal suite. Patients also expressed their satisfaction with physician who has a name badge on (Lill and Wilkinson,

December 2005). Chronically ill patients have complex care needs, often requiring care from multiple providers over a long period of time and active engagement in their own care.

Patient assessments of care are increasingly seen as important in planning health services in primary health care setting, especially for patients with chronic disease. Satisfied patients are more likely to follow treatment instructions and medical advice than less satisfied patients, probably because they are more likely to believe that treatment will be effective and are more likely to maintain a continuing relationship with their provider (Jayasinghe, *et al*., April 2008).

Rhodes and colleagues (2010), in their systematic review of studies of adults in general, family, or internal medicine practices with ongoing, direct, face-to-face contact with their physician to assess the relationship between continuity and patient satisfaction. They highlighted that, although continuity is not uniformly valued by all patients, continuity is important to the medical community, but does continuity lead to more satisfied patients? The reviews examining this question concluded that there is a consistent positive relationship between continuity and patient satisfaction. Furthermore, they concluded that continuity has a variable effect on patient satisfaction (Rhodes *et al*., January 2010).

Fan *et al*, (2005) concluded that, self-reported continuity of care is strongly associated with higher patient satisfaction. This suggests that improving continuity of care may improve patient satisfaction with providers as well as with their health care organization. Thus structuring the health delivery to enable patients to maintain continuity with their health providers, if they wish, may improve patient satisfaction with health care.

Although, continuity is important to both physicians and patients, having a familiar doctor may not necessarily lead to care that satisfies patients' expectations or that produces other quality outcomes. A qualitative study on patients' perceptions of personal care found that patients did not perceive care as personal when documentation from previous visits was not used by their physician to inform successive visits (Tarrant, June 2003). In another study, 15% of new diabetics were diagnosed only when they were evaluated by a new GP demonstrating that continuity of care does not guarantee the early diagnosis of a chronic disease (Broom, 2003). More evidence is needed to understand how continuity affects the timing of important diagnosis (Freeman *et al*., December 2003).

In contrast to acute illness, chronic illness requires a continuous management; full return to one's highest level of function might not be the result. Diabetics who had seen their usual providers within the past year were significantly more likely to have had an eye examination, a foot examination, two blood pressure measurements, and a lipid analysis (Parchman and Burge, July 2002). One study found intensive lifestyle modification to be more effective than metformin for reducing the incidence of type 2 diabetes (Knowler *et al*, February 2002), patient adherence to lifestyle recommendations (including healthy eating) was a main feature for successful interventions, and adherence was optimized when physicians acted as a coach to encourage patients to make positive choices and assist them in identifying and overcoming barriers (Koenigsberg, *et al.*, January 2004).

Kurlande and colleagues (2009), who examined how, cost and non-cost factors, are associated with patterns of cost-related non-adherence to medications among diabetic patients. Lower income and higher out-of-pocket medication costs significantly increased the odds that diabetic patients would report cost related non adherence for both diabetes and chronic pain, which negatively affects their health leading to increase chances of hospitalization and poor outcome (Kurlande *et al.,* December 2009).

Al Qatari and Haran (1999) study, done in Qateef area, Saudi Arabia to identify components of primary health care that cause the most concern to service users and to identify the factors associated with their satisfaction. They found that regular users are significantly more satisfied than irregular users, it is also expected that satisfied patients are more regular than non satisfied and vice versa(Al Qatari and Haran, December 1999).

Robinson *et al* (2008), in a study to examine the effect of educational material on patient satisfaction in Emergency department of Geisinger medical centre, Danville. They found that there is a trend towards improving patients' satisfaction when provided with educational pamphlet regarding their treatment (Robinson *et al*., April 2008).

2.2.6.3 Disease related variables and patients' satisfaction

Biderman, *et al.* (2009), in their study to find the relationship between treatment satisfaction of diabetic patients and socio-demographic, clinical, adherence, treatment and health perception

factors in across sectional study on diabetic patients in Israel, they found that there is statistically significant level between presence of any type of diabetic complication and treatment satisfaction(Biderman, *et al.,* April 2009).

A study done by U. Jayasinghe *et al*. (2008), to evaluate the association of characteristics of patients and general practices with patient assessment of quality of care in Australian primary care setting revealed that Patients with ischemic heart disease/ hypertension or asthma only had lower satisfaction with both Access and Patient-centeredness than patients with two or more conditions. However, the satisfaction of patients with diabetes was not significantly different. Moreover, Da Costa *et al.* (1999), study which examined the effect of physical and mental health status and social support on patient satisfaction with health care in patients with systemic lupus erythematosus. The findings revealed that disease duration and physician rated indices of disease damage and disease activity were unrelated to patients' satisfaction.

Health status is a genuine determinant of satisfaction, looking at patients with chronic diseases, poorly controlled diabetics reported less satisfaction with their health care (Redekop *et al.*, March 2002). At the same time patients with multiple chronic diseases were more annoyed with health care system as compared to those with single chronic disease (Parchman, Noel and Lee, November 2005). Crow and colleagues (2002), in their review of 31 observational studies that examined the relationship between health status and satisfaction, found that poorer physical health status, disability, low quality of life and psychological distress are related to lower reported satisfaction.

Wen and Gustafson (2004) proposed an interesting model of the relationship between health needs, satisfaction with care and quality of life in cancer patients. Their research drawn our attention to reassess the concept of needs assessment and better explore its relationship with outcome measurements, like clinical endpoints, quality of life, and satisfaction with care. Many researchers have addressed the association of health needs and health-related quality of life in diabetic patients (Eljidi, 2006), and also satisfaction with health services has been acknowledged in cardiac patients (Asadi *et al*., October 2003). Moreover, people with diabetes face disorders in many dimensions of quality of life (QOL). In patients with this disease, one of the most important methods of evaluating treatment and care is to assess the QOL. Medical

health teams should work not only to improve objective health status, but also to improve QOL for their patients. Proper assessment of the factors affecting QOL will lead to better planning and help providers guide their patients to achieve satisfactory QOL (Ghanbari *et al*., August 2005).

Tempier (2002), study to assess both general impression, and satisfaction with specific elements of clinical case management, of patients with long-term psychoses ,found that out of the 78 respondents , 12 less satisfied patients were non compliant with appointment compared to the more satisfied patients (Tempier, February 2002).

Biderman, A. *et al* (2009), who found no association between satisfaction and co-morbidities, they attributed that the most common co-morbidity in diabetic patients is hypertension. Again they found that the presence of foot complication was associated with lower treatment satisfaction, these results were not consistent with our findings. Additionally, the study revealed that Patients who were treated with diet alone were the most satisfied with treatment. Patients taking oral hypoglycaemic agents (OHA) were more satisfied than those taking OHA and insulin $P < 0.001$).

Al-Eisa et al (2005) study to evaluate patients' satisfaction with Primary Health Care Centres' (PHC) services at Capital Health Region in Kuwait. The study revealed that there was no significant difference between patients' satisfaction of different items of physicians' services and job except for physicians' skills, where students showed the highest satisfaction (Al-Eisa *et al*., July 2005).

Chapter three

Methodology

This chapter presents the study methodology, demonstrates study design, type of study, study population, study setting, sample and sampling process, and ethical issues considered. In addition, it presents the instrument, which was used in the study, its validity and reliability, data collection process, data processing and analysis. Finally, it presents selection criteria.

3.1 Study design

The design of this study is cross sectional descriptive analytical one. It has been selected because this method would be useful for descriptive and analytical analysis of study constructs, like perspectives, perceptions, experiences and satisfaction. It enables the researchers to meet the study objectives in a short time and low cost. This type of studies examines the association between cause and effect at a point of time. In general, cross sectional studies are economical, easy managed and quick (Polit and Hungler, 1999).

3.2 Study population

The study population is the NCDs patients attending the UNRWA's NCDs clinics in Gaza Strip at the time of data collection. A total of 49528 NCDs patients are registered at UNRWA health centres (UNRWA, 2008).

3.3 Setting of the study

The NCDs clinics of six randomly selected UNRWA's primary health care centres in Gaza Governorates were the work field in this study.

3.4 Period of the study

The study was conducted in the forth quarter of the year 2009. A letter was sent to the UNRWA's Chief Field Health Programme, to seek approval to conduct the study at UNRWA health centres. Then, the pilot study was conducted in the first half of October, 2009. Actual data were collected from December 15, 2009 till January15, 2010. Data analysis was completed by the end of February 2010.

3.5 Sample size

The statistical calculator of the Epi-Info was used to calculate the proposed sample size. 381 patients attending different UNRWA non-communicable diseases clinics were randomly selected from 6 health centres, based on calculation at confidence level of 95%. To compensate for the non-respondent the sample size has been increased to 400 patients.

3.6 Sampling

To select the clinics from where the sample was drawn the researcher used multi-stage sampling approach. The GS was divided into three strata as follow; North and Gaza, the Middle, and the South. Using another stratification layer, the clinics were divided and listed into 2 categories big and small clinics according to the number of NCDs patients registered in each clinic, the clinic that had equal or more than 3000 NCDs patients were considered big health centre, meanwhile those with NCDs patients less than 3000 were considered small according to the available data from the department of health. Through a simple random selection, 6 clinics were then selected (3 big and 3 small).

To select patients out from these clinics, we calculated the average number of NCDs patients attending the clinics with attention to the concerned variables. On the basis of the calculated average and the calculated sample size, 400 patients were divided into the 6 clinics, in the three areas, 83 patients were the study sample in the big clinic and 50 in the small clinic. Depending on visits schedule-two days a week, one busy day and another regular day based on observation and data present at each health centre. The researcher selected the number of patients presented to NCDs clinics; systematic random sample was used after determining the k^{th}.

3.7 Eligibility criteria

3.7.1 Inclusion criteria: Any patient attending the UNRWA non-communicable diseases clinics and accepts to participate in the study during the period of implementation.

3.7.2 Exclusion criteria: registered NCDs patients who don't attend the UNRWA clinics (bed ridden and defaulters).

3.8 Ethical and administrative measures

- Approval of Helsinki Committee in Gaza to conduct the study was obtained (Annex1).

- Approval of UNRWA to carry out the study was obtained (Annex2).

- Patients of concern were informed through written and oral consent about the purpose of the study and their right to optional participation (Annex3).

3.9 Data collection tool

The instrument used in this study was a structured questionnaire (Annex 4 English and Annex 5 Arabic). The researcher constructed the questionnaire based on the review of the literature, his observations and personal experiences in health services provided at UNRWA NCDs clinic. The questionnaire consisted of two sections and took approximately 20 minutes to complete. The first section contains 26 items explored the requested information on demographic, socioeconomic profile of the patients, service delivery and the disease related variables.

The second section explored the patient perceptions and satisfaction with the NCDs services, it consisted of 73 items that reflected all the services features, it was developed mainly using 5-points Likert scale format, it also included items that were obtained as a result of record review to assess last 3 blood pressure readings and last 2hrs post prandial plasma glucose (PPPG) to determine the control status of the disease using the UNRWA criteria for assessing control of disease and item to determine the interval between last 3 visits.

3.10 Pilot study

A pilot study was conducted to determine whether the study was feasible or not and to identify possible problems in the design, examine the reliability, validity and suitability of the instrument (Burns and Grove, 1997). The instrument was piloted using a sample of 15 clients from an UNRWA health centre. In the piloting process, the researcher found some statements that needed rephrasing and some words needed corrections. Results from the pilot study pointed that the questionnaire would provide the needed data to meet the purpose of the study.

The pilot subjects were excluded from the study as the health centre were piloting was done was not included in the study setting after the randomized selection of the health centres.

3.11 Data collection

The data was collected by the researcher himself and an assistant. The assistant was graduated from a medical college, trained and prepared well on how to interview patients, filling questionnaire and clarification of the instrument item by item were provided. Collection of quantitative and qualitative data was carried out sequentially by face-to-face interviews. Obtaining of informed consent preceded the interviews. After proper introduction, the interviewer stated the research purpose; confirmed the anonymity and confidentiality of data, as well as the lack of risks and the potential benefits from the study; informed patients about their right to withdraw or to refuse participation. At the end of the interview the researcher did a record review to obtain the needed information from patient's record.

3.12 Data entry

Over viewing of the questionnaires was the first step prior to data entry. This step was followed by designing an entry model using the computer Software Statistical Package for Social Sciences (SPSS) version 13. Then the coded variables entered into the computer by the researcher. Data cleaning was done through checking out a number of the questionnaires and through exploring descriptive statistics frequencies for all variables. All suspected or missed values were checked by revising the available questionnaire.

3.13 Data analysis

In data analysis, many different statistical tests were used, through frequency of the study factors, description of the study population. Frequency Tabulation, Bar Chart and Pie Chart were used to describe the study variables. That was followed by testing reliability and validity of the instrument. Factor analysis was used to cluster items constituting certain domains (construct validity). Advanced statistical analyses were conducted to explore the potential relationships between variables. Therefore, Independent t-test to test the difference between independent two groups on the means of the dependent variable (satisfaction) and One Way ANOVA (include Scheffe- Post Hoc

test) test was carried out to investigate the relationships between the more than two independent study variables with the total and sub-scores of the satisfaction level.

3.14 Validity and Reliability

Many researchers have stressed on the importance of validity of an instrument. Validity is defined as "the extent to which a measuring instrument measures what it is supposed to measure" (Mark, 1996). In fact, when instruments measure what they are designed for, is considered to be of great importance for their reliability and this start with conceptual relevance and simplicity of the instrument (Fagerstorm *et al*., February 2000). Content Validity Index (CVI) was used as an instrument to rate the relevance of the questionnaire.

The technique of measuring variables must be reliable as this reflects the extent to which an operational definition, questionnaire or other instruments is stable and consistent (Mark, 1996). So, a measure is reliable if it gives the same results each time the situation or the factor is measured. Cronbach's alpha co-efficient was used to measure the internal consistency of this Likert Scale questionnaire. In general, values more than 0.7 were considered acceptable (Table 4.1). In addition, the first 40 completed questionnaires were used to check on the reliability of the tool.

General measures of reliability and validity were implemented including;

- Standardization of data collection tools
- Standardization of implementation methods
- Systematic checking and follow up of data collected
- Training of data collectors who will help in data collection
- Data cleaning and checking.
- Record review to check on needed information.

As a result of factor analysis, six factors were emerged and included general impression, communication and interpersonal, clinic environment, convenience, technical quality, accessibility. These factors represented 42.28% of the total amount of variance.

Table 3.1: Factors sub-scales reliability estimates

Factor No.	Factor name (Domain)	No. of cases	No. of items	Cronbach's Alpha
1.	Technical quality	327	20	0.884
2.	Communication and interpersonal relations	327	13	0.890
3.	Clinic environment	327	8	0.779
4.	Convenience	327	5	0.837
5.	General impressions	327	5	0.704
6.	Accessibility	327	3	0.637
7.	Overall satisfaction	327	54	0.925
8.	Overall scale (all items of the questionnaire)	327	72	0.936

3.15 Response rate

According to the calculated sample size, the researcher selected 400 patients to participate in this study. A total of 327 patients agreed to participate in this study, which represented 81.8% of the study population and 73 patients refused to participate due to their involvement in other activities (they were in a hurry or busy as explained by them) and those represented 18.2% of the study population. The high response rate could be attributed to the approach utilized by the researcher. Furthermore, the interviewing questionnaires usually result in higher response rate (Burns and Grove, 1997).

3.16 Limitations of the study

Being an UNRWA medical officer working in the field and is familiar with study topic gave him the chance to face minimal limitations. This has been reflected in the high response rate and the high validity and reliability of the study. However, the following limitations were met:

1. Dearth of relevant educational resources.
2. The political situation and the siege on Gaza during the study period such as the frequent electricity cut offs.
3. The researcher deals with different groups of clients especially the elderly.
4. The bad economical situation of the majority of the population during the implementation of the study might have affected their expectation and satisfaction level.
5. The study is a quantitative one; carrying a qualitative research could produce more reliable information particularly in issues related to perception.

Chapter four

Results and Discussion

4.1 Introduction

This chapter presents the results of statistical analysis of the data and discussion of the results. Descriptive analysis presents the demographic characteristics of the respondents at UNRWA NCDs clinics. Moreover, the differences between the selected variables and overall satisfaction scores and with sub-scales were explored by using different analytical statistical tests and presented as detailed below. In addition to the results obtained out of this research, comparison of our findings and other studied done in the region and globally were highlighted. It is worth mentioning, that due to the large amount of data obtained as a result of analysis, the researcher prioritized the data, and included the most important and significant findings within the text of this chapter, meanwhile other parts of less importance were briefly pointed to within the text and the related tables of those were included in the annexes.

4.2 Descriptive analysis

4.2.1 Socio-demographic characteristics

Table 4.1, summarizes important variables that were found in this study; such as gender, age, marital status, place of living, level of education, current working status. Regarding gender, females represented 55.7% of the respondents while males represented 44.3% (145). This is inconsistent with Al Kariri (2010) study to assess patients' satisfaction with outpatients at Alshifa Hospital which found that males represented 51.4% and females represented 48.6 % of the study sample (Alkariri, 2010).

The mean age was 54 years and the standard deviation was 11 years. This differs from Elhaj study which revealed that males represented (50.2%) and mean age was 42 (Elhaj, 2008). The highest age group among the respondents was 45-60 years which represented 51.7%.The second highest age group was >60 years, which represented 27.2%, and the third highest was <45 years which represented 21.1% of the study population (figure 4.1). Alkariri (2010) study, found that age of the study population varied between 18 to 70 years, the mean age is 30.3 years and the standard deviation is 4.43 years. The researcher divided the ages into four groups, the first 18 to 24 years (26.2%), the second 25 to 34 years (24.4%), the third 35 to 47

years (24.4%) and the fourth 48 to 70 years (24.9%). The differences with Elhaj and Alkariri could be attributed to the difference in the nature of the study subjects and the study settings.

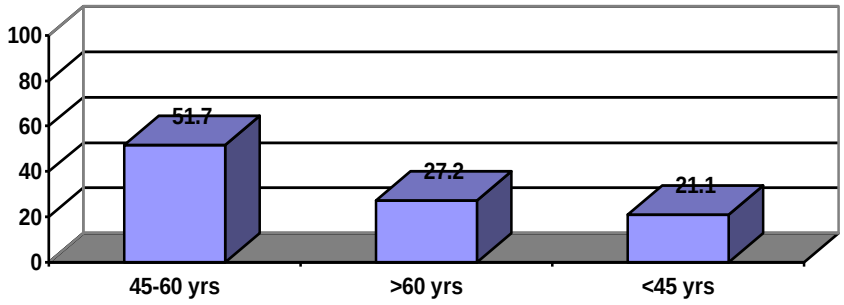


Figure 4.1: Distribution of study population by age group.

On one hand, the married respondents showed higher percentage, which represented 85.6% of the subjects, while those who were unmarried represented 14.6%. Again, Elhaj study concluded that married patients represented (66.7%) as compared to unmarried (Elhaj, 2008), Additionally, Alkariri (2010) found that the respondents who are married showed higher percentage, which represented 67.6%, while the unmarried represented 26.7%, the widow subjects represented 4.9% and the divorced subjects represented 0.7% of the study sample. this is related to the nature of the subjects in the two studies. The researcher attributed these results to the inclusion criteria that includes the population more than 18 years of old and to our social habits that appreciate the early marriage. On the other hand, 33.9% of the respondents were living in Gaza and North, 31.5% in the middle zone and 34.6% in the south.

As shown in table 4.1, 41.3% have had attained primary level of education, 28.1% attained secondary level of education, 16.2% were illiterate and 14.4% only had university degree or higher. In comparison with Elhaj (2008) study, revealed that patients who had university degree were 21.9%. Additionally, Alkariri (2010), study revealed that 32.1% of the study population have had attained secondary education, 25.9% of the study population received preparatory education, 22.2 % of the study population received elementary education and 19.8% of the study population received first university degree or higher education.

The majority (79.5%) of the study population were not working while the remaining percentage (20.5%) were working, which shows a high degree of unemployment among the

study population at the time of the study. In addition, Elhaj study revealed that unemployment level (74.8%) was close to our findings (Elhaj, 2008).

Table 4.1: Socio-demographic characteristics of the study population

Variables		**Frequency**	**%**
Gender	Male	145	44.3
	Female	182	55.7
Age	<45 years	69	21.1
	45-60 years	169	51.7
	>60 years	89	27.2
Marital status	Married	280	85.6
	Not-married	47	14.4
Place of living	Gaza and north	111	33.9
	Middle zone	103	31.5
	South	113	34.6
Level of education	Illiterate	53	16.2
	Primary school	135	41.3
	Secondary education	92	28.1
	University or higher	47	14.4
Current working status	Working	67	20.5
	Not working	260	79.5
Nature of work (for working patients n=67)	Employee	49	73.1
	Skilled worker	7	10.4
	Non skilled worker	11	16.4

Table 4.2, illustrates important data about the diseases related variables, such as type of disease, disease duration, complications, type and duration of complications, types of treatment, patients self-evaluation of health, disability/mobility restriction, control status and regularity of visit. As shown in the table above, the majority of the study population was patients with hypertension representing 41.3% of the total respondent, patients with double

burden (diabetes and hypertension) represented the second highest 36.4%, while those with both types of diabetes represented 22.3%. These figures are in line with the disease distributions according to the UNRWA statistics. Patients who had the disease for 5-10 years, who represented 45% of the study population, 43.4% had the disease for less than 5 years, meanwhile those who had the disease for >10 years represented 11.6% of the study population.

As shown in table 4.2, 32.1% (105) of the study population reported the presence of complications, while the remaining 67.9% (222) reported no complications. Cardiovascular complications represented 36.2% (38) of the reported complications, 23.8% (25) were with neurologic related complications, cerebrovascular related complications represented 20 %(21), whereas the remaining 20% (21) represented all other types of complications (renal, foot, ophthalmologic, etc.).

there is an association between the duration of the diseases and the occurrence of complication, additionally it is not only the disease duration which is related to the occurrence of complication also the poor control of the diseases accelerates the process of developing those complication and this requires prompt action in bringing these diseases well under control as fast as possible. Moreover, there is a need to pass this message to the patients so they can become more oriented and have their own measure to participate actively in their part of managing the disease.

Regarding duration of complications, 59.1% (62) had complications for less than 5 years, 31.42% (33) had complications for 5-10 years, the remaining 9.52% (10) had them for >10 years. Out of the study population 42.8% were on antihypertensive agents (hypertensive patients and patients with DM&HTN on life style for DM), 40.7% were on insulin alone and or insulin and oral treatment, those on oral hypoglycaemic agents represented 15% and the remaining 1.5% were on life style modification only. This result may indicate that either there is a high degree of non-adherence to healthy life style or there is poor counselling in relation to life style measures. Both of which needs more reinforcement through health education and teaching health providers on counselling skills.

4.2.2 NCDs related factors

Table 4.2: Distribution of population by diseases related variables

Variables		**Frequency**	**%**
Type of NCD disease	DM	73	22.3
	HTN	135	41.3
	DM&HTN	119	36.4
Disease duration	<5 years	142	43.4
	5-10 years	147	45.0
	>10 years	38	11.6
Presence of complications	Yes	105	32.1
	No	222	67.9
Type of complications for those who have complications n=105	Cardiovascular	38	36.2
	Neurologic	25	23.8
	Cerebro-vascular	21	20.0
	Others (e.g. foot, etc)	21	20.0
Duration of complications	<5 years	62	59.06
	5-10 years	33	31.42
	>10 years	10	9.52
Type of treatment	Life style only	5	1.5
	OHA (oral hypoglycaemic agents)	49	15.0
	Anti-hypertensive agents	140	42.8
	Insulin and oral treatment	133	40.7
Self-evaluation of health status	Excellent	30	9.2
	Very good	64	19.6
	Good	127	38.8
	Fair	87	26.6
	Poor	19	5.8
Disability /mobility restriction	Present	12	3.7
	Absent	315	96.3
Control status	Controlled	182	55.7
	Uncontrolled	145	44.3
Regularity of visits according to the appointment	Regular	291	89.0
	Irregular	36	11.0

Patients' evaluated their health status as follow, 9.2% rated their health as being excellent, 19.6% as very good, 38.8% as good, 26.6% as fair and the remaining 5.8% as poor. Only 3.7% of the study population had a disability/mobility restriction (table, 4.2). The disease of 55.7% of the study population was under control according to the UNRWA's disease control criteria, while 44.3% were uncontrolled, which is congruent with UNRWA's control status of all NCDs patients in GS. The high degree of uncontrolled among NCDs patients mandates more positive actions at all levels, measures have to be taken to bring these diseases well under control to avoid the occurrence of complications that affects the quality of patients lives. Which in turn have a negative impact on the economy in terms of loss in productivity as the prevalence of NCDs is more among the productive group of patients.

The majority of the study population has shown a high degree of compliance to the appointment system in general (but not by date and time). This is obvious from the results shown in the table 4.2 which shows that 89% were regular in their visits to the health centres and 11% were irregular in their visits (record review). This finding of the record review is consistent with the finding reported by patients themselves. Around 80% present to the health centre as requested by the providers (to high extent), 17.1% presented as requested (to some extent) and the remaining 3.1% usually don't present to the health centre as requested by the health providers (table 4.3). This reflects the success of the Health Department as a step forward to implement the appointment system at UNRWA NCDs clinics, as part of the health excellence service initiative to increase doctor-patient contact time.

4.2.3. NCD services related variables

Table 4.3, shows variables related to service delivery, access and availability. Out of the study population 27.5% has seen specific doctor, 20.2% has seen specific nurse, and 73.1% has seen ≤3 doctors in the last year, while 60.2% has seen ≤3 nurses. Meanwhile, 26.9% has seen >3 doctors and 39.8% has seen >3 nurses. Maintaining continuity of provider is important issue and has to be addressed seriously, it has an impact on patient's adherence to the instruction, treatment and appointment. The results points to the importance of maintaining and improving continuity of care particularly when dealing with chronic diseases.

Only 23.5% of the study population had received NCDs services in other organizations, the remaining 76.5% receive services from UNRWA. UNRWA health providers should find a way to know why patients seek medical care in other organizations, this should help them understand the reasons and find appropriate solutions to retain their patients. Out of those who received services in other organizations 64.9% rated UNRWA's NCDs services as satisfying compared to other organizations, 19.5% as very satisfying, and 13% as fair and only 2.6% as not satisfying. Regarding health educational materials, 58.4% received a booklet containing educational material, whereas 41.6% did not receive.

Out of those who received the educational material, 53.4% described it as being of high value, whereas the remaining 46.6% described it as of some value. This in turn means that patients' value the educational materials provided to them thus providing patients with educational materials should be the attitude of the health providers. Additionally, carrying out patients health education sessions would also be valued by them and would help the illiterate people. Table (4.3) also shows that 57.8% have turned back without receiving the services they came for in the past year, while 42.2% have not. The mean number of times they turned back was 1.57. In 95.2% of those who turned back the reason was lack of NCDs drugs the remaining 4.8% turned back due to other reasons (e.g. wrong appointment). Analysis of open ended question revealed that patients were annoyed about the lack of drugs, but they expressed their full understanding that this was out of UNRWA's control as a result of the burning of UNRWA's drug stores during the last War on Gaza, as well as the siege on Gaza.

As show in table 4.3, 23.5% of the study population were purchasing NCDs drugs other than those provided by the UNRWA, and 76.5% depend fully on UNRWA to supply them with drugs. In 80.5% of those who purchased additional medications the reason was unavailability of these medications as regular items at UNRWA, while the remaining 19.5% put it to other reasons (e.g. insufficient, poor quality, etc). The table (4.3) also shows that 58.3% out of the 12 patients who had a disability/mobility restriction thought that the health centre is equipped either fully or partially to facilitate their movement through different departments, while 41.7% thought it is not equipped. Regarding compliance with the appointment given by health providers, 79.8% of the study population are compliant with the appointment given by the health providers, while 17.1% sometimes comply, and only 3.1% are non compliant.

Table 4.3: Distribution of subjects by services delivery, access and availability variables

Variables			**Frequency**	**%**
Having a specific health provider	Doctor	Yes	90	27.5
		No	237	72.5
	Nurse	Yes	66	20.2
		No	261	79.8
No. of health providers seen in the last year	Doctor	≤3	239	73.1
		>3	88	26.9
	Nurse	≤3	197	60.2
		>3	130	39.8
Receiving NCDs services elsewhere	Yes		77	23.5
	No		250	76.5
Comparison between UNRWA's NCDs services with other service providers	Very satisfying		15	19.5
	Satisfying		50	64.9
	Fair		10	13.0
	Not satisfying		2	2.6
Receiving health educational materials	Received		191	58.4
	Not receive		136	41.6
Value of educational materials	high extent value		102	53.4
	some extent value		89	46.6
Experiencing returning back without receiving service in the last year	Yes		189	57.8
	No		138	42.2
Reasons for turning back without receiving service in the last year	Lack of drugs		180	95.2
	Others (e.g. wrong appointment)		9	4.8
Purchasing extra medications	Yes		77	23.5
	No		250	76.5
Reasons for purchasing extra medications	Not available (as regular items)		62	80.5
	Others (e.g. insufficient, etc.)		15	19.5
Readiness of the health centre for disabled	Equipped		7	58.3
	Not equipped		5	41.7
Compliance with appointment	To high extent		261	79.8
	Sometimes		56	17.1
	Usually not		10	3.1

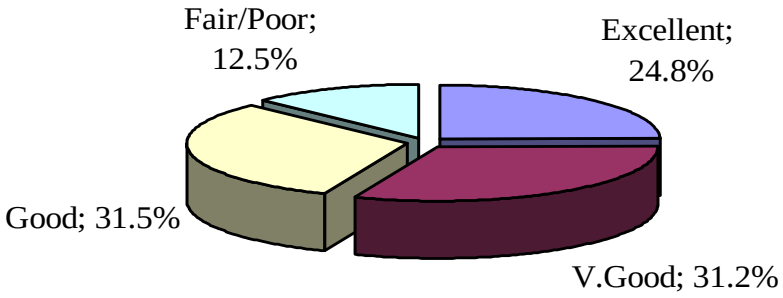


Figure 4.2: Distribution of patients according to their evaluation of the NCDs services at UNRWA

Figure 4.2, illustrates general impressions about the NCDs services provided to patients at UNRWA health centres. The majority (87.5%) of the patients' rated their level of satisfaction as Excellent, very good and good, while, 12.5% of the respondents rated their level of satisfaction as fair/ poor. This finding is consistent with the results of the responses in which 97.3% of the respondents would recommend the health centre to family or friends. Another study done in Palestine concluded that patients who rated the services provided to them as excellent, very good and good were 96.6% (Elhaj, 2008).

4.3 Factor analysis and related subscale dimensions

As a result of factor analysis 6 domains of satisfaction was extracted, those factors reflect the magnitude of patient satisfaction with the NCDs services provided at UNRWA health centres in Gaza Strip. It is worth mentioning that 54-scale items were included, the emerged six factors were labelled by the researcher as follow:

4.3.1 General impressions

General impressions about the NCDs services dimension included 5 items (annex 6); it refers to the overall impression of the way the NCDs services are provided at UNRWA's health centres, and the appropriateness of service delivery. It also reflects patients' good experience with services. In this study, findings showed that general impressions domain reported a mean 4.1902 (83.8%) of satisfaction level which means that patients are generally satisfied about the NCDs services delivered to them. Items that were included in this domain included recommending UNRWA health facilities to relatives or friends which showed a high score among the study participants. As expressed by patients on analysis of the open ended questions, they were impressed with the NCDs services at UNRWA due to regularity of the service. Additionally the high degree of unemployment and poor economic situations makes them totally dependent on UNRWA to supply them with drugs free of charge, as it difficult for them to buy medications or even pay the fee to get the drugs from other organizations.

4.3.2 Accessibility of care

This domain refers to both physical and information accessibility (annex 6). It reflects that UNRWA is focusing on delivering accessible health care to the Palestine refugees. In this study, findings showed that accessibility domain reported a mean 3.8522 (77.04%) of satisfaction level which means that patients also have a moderate positive satisfaction about accessibility of care. As a result of analysis of open ended question, patients expressed their satisfaction with physical accessibility with UNRWA, as the health centres are located right in the heart of the refugee camps.

Al Sakkak *et al.* (2008) study, to assess patients' satisfaction with the primary health care centres affiliated to Riyadh military hospital in Saudi Arabia reported 62.4% with accessibility of care. Accessibility simply refers to geographic accessibility, which is determined by how easily the patient can physically reach the facility location (Al Sakkak *et al.*, March 2008). Additionally, access is a major concern in health care policy and is very frequently used word in discussions of the health care system.

What can be concluded is that accessibility in our setting is relatively better than other places as our health centres are geographically accessible to the majority of our patients. Generally improving accessibility to health care would reflect the degree of quality care delivered. Although, physical accessibility is easy, still there a gap in accessibility to information which necessitates that proper measure have to be taken to encourage health provider to find ways of delivering necessary information to patients. This could be achieved through training on communication skills of the providers and health education of the patients.

4.3.3 Communication and interpersonal relations

Communication and interpersonal relations dimension included 13 items (annex 6). This refers to the interaction and communication between patients and health centre staff; it also reflects the degree of respect shown to the patients by health centre staff. In this study the finding showed that communication and interpersonal relations domain reported a mean 3.8156 (76.31%) of satisfaction level which means that patients also have a moderate positive satisfaction about communication and interpersonal. As a result of analysis of open ended question, the majority of the patients highly appreciated the way that UNRWA health providers have dealt with.

Similar findings revealed by Abu Shuaib (2005) study, which assess women perception and experience of childbirth services at governmental hospitals in Gaza Strip. The researcher reported that information and communication as expressed by Palestinian women was 78.1%. Another study conducted by Abu Saileek (2004), who examined the client's satisfaction with nursing care provided at selected hospitals in Gaza Strip showed that 67.4% of the clients were satisfied with information and interaction dimension. Al Hindi (2002) conducted a study, which investigated client's satisfaction with radiology services. The researcher reported that communication and interaction as expressed by Palestinian clients was 77.5% satisfied and 22.5% dissatisfied. Mousa (2000) conducted a study about clients' satisfaction with family planning services in GS and showed that communication and interaction were reported to have the lowest degree of satisfaction. Only 54% of the respondents were satisfied with regard to the communication and the interaction part of service. Mousa pointed to the need for

comprehensive and in-depth training courses in the counselling process among health providers (Mousa, 2000).

Andaleeb (2001) conducted a study, which evaluated the service quality perceptions and patient satisfaction in Bangladesh. Andaleeb reported that communication as expressed by Bangladeshi clients was 69.1% satisfied. Coulter and Cleary (2001) conducted a study, which analysis the patients' experiences with hospital care in five countries. The researchers reported that information and education as expressed by the respondents were in Germany 79.6%, Sweden 76.6%, Switzerland 83.3%, the United Kingdom 71.3% and United State 74.8%.

Only good communication can build the trust, change behaviour of the people and convince patients of health provider's ability to deliver good quality care to them. UNRWA health providers need to be more focused and improve their communication skills in order to retain patients and avoid the turnover among them. Additionally, good communication improves the psychological status of patients which in turn might have an impact on their disease control.

4.3.4 Clinic environment

This domain included 8 items (annex 6), it refers to the degree in which the health centre environment provides privacy and or confidentiality to the patients, and it also refers to the comfort and cleanliness of the health facility. In this study the finding showed that clinic environment domain reported a mean 3.6349 (72.69%) of satisfaction level. As a result of analysis of open ended question, patients expressed their happiness about the improvement of the physical environment of the UNRWA health centres as they have noted great change in the level of cleanliness of the facility despite being overcrowded.

This result is in agreement with Abu Shuaib (2005), who assessed women perception and experience of childbirth services at governmental hospitals in Gaza Strip. Abu Shuaib reported 76.1% of perspective level. He attributed that to the unfamiliar place; cold, strange, frightening and full of surprises. Abu Saileek (2004) study, reported 69.7% satisfaction level with comfort and environment domain. Also, Anastasios and colleagues (2004) in their study to evaluate patient satisfaction with nursing care; the patients expressed low satisfaction with the cleanliness of toilets, noise levels and the variety and temperature of meals (Anastasios,

Elizabeth, and Chryssoula, May 2004). The environment provides a first impression of the health care experience and influences the customer's evaluation of services is often based on that first impression (Uzun, October 2001). The physical setting of the facility, where patients has to find proper comfortable waiting areas and seats is an important determinant , cleanliness is also important ,it is part of health, poor hygiene means poor health. This mandates that continuous monitoring is needed to keep the health facilities as clean as possible, create proper waiting areas with media that broadcast health education materials where patients can wait without getting bored. On the other hand, it is also important to teach patients the benefits of clean and tidy health facility, all these are measures meant to convey a message to patients that these facilities belong to them and they have to actively participate is keeping it clean.

4.3.5 Technical quality

Technical quality domain included 20 items (annex 6), it refers to the ability of the health staff in delivering a good quality care to patients, also refers to the patient centred care, it reflects the adherence of the health centre staff to the technical instructions and reflects staff ability to disseminate medical information to the patients. In this study the finding showed that technical quality reported a mean 3.3604 (67.2%) of satisfaction level. Open ended question analysis showed that some of patients have appreciated the technical competency of the UNRWA health providers. They pointed that they are better than others as they are capable of capturing cases despite the huge number of patients seen by them.

Our results were not congruent with other studies done in Gaza strip; they showed higher results. Al Hindi's (2002) study, reported satisfaction level 80% with approach of care in radiology services. Abu Shuaib (2005) study, reported higher level of satisfaction 85.5% with the approach of mother care. Also Elhaj (2008), reported level of satisfaction 82.5% with the approach of care. The level of satisfaction with the technical quality at UNRWA may be related to the general frustration of the patients with the Palestinian health care system in general. In addition it could also be related to the lack of trust in Palestinian doctors in general which might be the result of the wrong information provided by families, relatives or even friends who had services outside Gaza. Moreover, in this study we tried to deeply tackle the

technical quality issue in a trial to explore the actual level of satisfaction with this important part of service delivery in order to better understand the situation and improve the quality of services provided to our patients. In service training, training on communication skills and system to evaluate the technical ability of health providers all are measures that should be considered to improve the technical quality. Additionally, creating a culture of discussion and consultation among the health providers helps in improving the technical quality, by other means; every effort has to be paid to create a learning organization.

4.3.6 Convenience

The convenience domain, refers to the waiting time before getting served (annex 6), it also refers to how convenient is the health centre regarding crowd and noise. In this study, the findings showed that Convenience reported a mean of 2.8312 (56.62%) of satisfaction level. open ended question analysis revealed that especially the females were annoyed with the convenience as they have to wait for long time as a result of crowdedness which causes significant delay for them in getting back home early to look after their children and other home responsibilities. Alhindi (2002) study, reported high level of satisfaction (90%) with comfort and privacy in radiology departments.

If patients feel convenient, they could bear to wait for longer time without being annoyed, in addition it may have a psychological impact on them as they would appreciate the efforts providers do to make them comfortable. This means that measure have to be taken to help overcome the long waiting times, this could only be achieved through implementing proper appointment system. Health education and community support is highly needed in this regard; patients should understand why it is important to attend on time. Appointment system by date and time is a big challenge, it’s a change and every change has a resistance initially, but this could be overcome by time, changing the behaviour of the people cannot just happen overnight, it needs patience, good communication, persistence and finally legislations.

4.3.7 Overall satisfaction

The total satisfaction score (overall satisfaction) reflects all the subscales scores. Dimensions of patients' satisfaction with the NCDs services at UNRWA’s health centres were general

impression, accessibility, communication and interpersonal, clinic environment, technical quality and finally, convenience. The overall mean of satisfaction score (maximum 5) was 3.5951 (71.9%). The mean satisfaction score for subscales ranged from 2.83 to 4.19 (56.6% - 83.8%), high mean scores indicate positive perception and vice versa (Fig.4.3).

As a result of factor analysis, domains of satisfaction reflected patients' satisfaction with the NCDs services provided at UNRWA's health centres in Gaza Governorates were extracted. The results showed that patients' satisfaction level with the NCDs services was 71.9%. Nevertheless, examining the items with low satisfaction should enable UNRWA staff to identify the weak areas and implement effective measures.

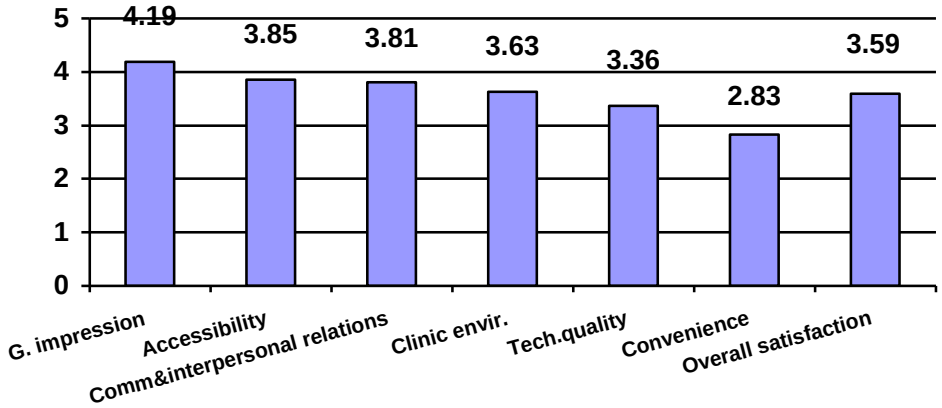


Figure 4.3: Means of satisfaction dimensions

This result is consistent with Mousa (2000) study; the researcher reported that overall satisfaction as expressed by the Palestinian women was 72%. The results were also consistent with the Abu Shuaib (2005) study; the result showed that the overall perception level was 70% at the governmental hospitals. Although the setting of Abu Shuaib's study was different, still refugee patients belong to the same country and have the same culture and their perception is nearly the same. Also, the results is consistent with Abu Saileek (2003), the result showed that the satisfaction level was 70.1% in both hospitals. The results were higher than the results revealed by Abu Dayah (2000) study in the GS and WB, the findings showed that 61.9% of the clients' showed high level of satisfaction with health services as overall.

Alasad and Ahmad (2003), study to examine patients' satisfaction with nursing care at a major teaching hospital in Jordan. The researchers reported that the satisfaction level as expressed by the patients was 77%. Al-Doghaither (2004), study to evaluate inpatient satisfaction with physician services at King Khalid University Hospital in Riyadh; the result showed that the overall satisfaction was 66.2%. Another study was conducted in Turkey; the result revealed that the satisfaction level was 76.6% (Yildiz and Erdogmus, September 2004).

Overall, survey of patient satisfaction presented in this study yielded positive results. Despite the fact that results of this research might be considered acceptable at face value, and considered as a sole indicator that the services offered by the NCDs clinics at UNRWA as evaluated by patients are adequate, still they provide insights to both the researcher and other UNRWA health providers who might consider using them to improve the quality of services to Palestine refugees. Being in the positive side, the results of this research can be a motive to the UNRWA's health professionals' to continually seek measures to improve the quality of NCDs services.

Theoretically, the model proposed by this study identified six important dimensions to the NCDs patients at UNRWA health centres. Yet, these dimensions are largely perceptual rather than objective in nature which might explain the difficulty that patients' may have in assessing the quality of the services; they strongly explained patients' satisfaction with NCDs services. These dimensions represent patient centred service quality indicator in primary health care setting, their use in evaluating primary health care services should help providing a better quality care to our patients. However, additional research is needed to refine the model. With further validation and identification of additional service variables, it should be possible to identify and introduce patients- driven quality standard, to enable provider to better understand and address patient's needs.

When quality improves, patients will be reassured and will continually seek medical care, which would eventually have a direct impact on their health and will minimize or at least halt the progression on unfavourable outcome. In other words, better quality, better care, healthier patients, and more satisfaction. In addition to the direct benefit on patients, this would have an indirect benefit on the UNRWA as one of the main health provider to the Palestine refugees,

and at national level in terms of preserving its foreign exchange which can be deployed in other important sectors. Health care providers can use the results of this research as a tool to overall evaluate their performance and to focus more on patients' centred care as a predictor of a good quality care. Patients are and should be our first concern; they are human and have expectations, if their expectations are not met, they will undervalue our efforts, have a tendency to be ignorant, non-complaints and seek better options.

Patients' views should be sought to improve the response of the health care to their needs (Wensing *et al.*, May 1997). However, it is important to know which factors play a role in determining whether their judgment of the care received is positive or negative. This would help health care provider and decision makers to focus on those factors. The study was limited to the NCDs services at UNRWA, the researcher wanted to explore and better understand the current situation of patients' views particularly in this important service.

Generally, patients enter the Palestinian health care system with low expectations; this could be due to information provided by the community, relatives, and overall unfavourable social attitude towards health services. NCDs Patients used to view UNRWA's health centres as a drug provider rather than health provider. Recently, with the newly implemented paradigm, patients' views have changed, although this change is slow, but it is there. This change along with the free of charge services and comparison of UNRWA with other health providers in this particular field; played an important role in moderating patients' expectations.

4.4 Socio-Demographic variables of NCDs patients and satisfaction

In this section, the researcher illustrates the relationships between socio-demographic variables and patients satisfaction. In this study females represented 55.7% of the study population, where males represented 44.3%. (Annex7) shows that males elicited higher scores in overall satisfaction than females. Additionally, males have had more positive satisfaction than females in all the domains except in general impression domain where females elicited a higher level of satisfaction. Although, the results identified that males were in higher level of satisfaction. However, in this study, there was no statistical significant difference between males and females in any of the dimensions.

This result is consistent with Abu Saileek (2004) study, females represented higher percentage (52.2%) and males' percentage was 47.8%. the researcher found no statistically significant differences between males and females in their level of satisfaction with nursing care. Al Hindi (2002) who evaluated clients' satisfaction with radiology services in Gaza Strip identified that there were no real differences between males and females regarding the satisfaction level (Al Hindi, 2002). On the other hand, others have reported real differences within gender (Uzun, 2001).

Our results could be attributed to the researcher perception that females complain more than males. In addition, females might have more home responsibilities, they tend to attend health centres later during the day when there is crowdedness and longer waiting times, and this could reflect their lower level of satisfaction. Moreover, as the number of female patients is more than males, there is a possibility that males try to misuse the culture of male dominance such as getting served before females, which could reflect females' dissatisfaction. Another possibility is that males may have lower expectation than do females. As there were no real differences within gender, more care has to be given for both males and females to increase their level of satisfaction hence improve compliance and adherence to the instructions given to them and ensure that both sexes have the right for being healthy. Additionally, health providers should work hard on promoting gender equality and teaching females their health rights.

Table 4.4, illustrates the differences between patients' satisfaction and marital status of study population, which revealed that the unmarried patients' elicited higher overall satisfaction scores (3.6489). Additionally, unmarried patients have had more satisfaction in the all dimensions except in general impression and accessibility domains. Although, unmarried patients have higher satisfaction in most of the dimensions than married the differences between the two groups has not reached statistically significant level except in communication and interpersonal relations which was statistically significant (P-value 0.026). Al-Doghaither (2004) study revealed that married people were more satisfied than single people (Al-Doghaither, May 2004). Moreover, this result is not consistent with Abu Saileek (2004) study who reported that there are significant differences in satisfaction level, between married and unmarried respondents, the married respondents reported higher level of satisfaction.

Table 4.4: Differences in patients' satisfaction by marital status

Dep. Var. "Patient satisfaction"	Indep. Var. "marital status"	N	Mean	S.D.	t	Sig
General impressions	Unmarried	47	4.1872	.35239	-.059	.953
	Married	280	4.1907	.37606		
Accessibility	Unmarried	47	3.7305	.74093	-1.385	.167
	Married	280	3.8726	.63488		
Communication and interpersonal relations	Unmarried	47	3.9394	.38593	2.268	.026*
	Married	280	3.7948	.50217		
Clinic environment	Unmarried	47	3.6755	.42722	.596	.552
	Married	280	3.6281	.51614		
Technical quality	Unmarried	47	3.3947	.37680	.568	.570
	Married	280	3.3546	.45774		
Convenience	Unmarried	47	2.9319	.81644	.862	.389
	Married	280	2.8143	.87388		
Overall satisfaction	Unmarried	47	3.6489	.32228	1.061	.289
	Married	280	3.5861	.38354		

* Statistically significant

The findings indicate that Unmarried patients might have lower expectations and might have a previous experience with the service. Additionally, unmarried patients might have more patience especially when they have to wait for longer times as they have fewer responsibilities as compared to the married. This means that more attention has to be paid to the married patients to understand the reasons for their lower satisfaction which would eventually helps in promoting measures that leads to the increase of their satisfaction.

Annex 8**,** illustrates the differences between patients' satisfaction and age groups of the study population. The results revealed no statistically significant differences between patients' satisfaction and age groups (p value 0.85). However, patients between 45 and 60 years of age have the highest score of overall satisfaction and those below 45 years of age scored the lowest. In this study, age of the respondents ranged from 13 to 90 years. This result is

consistent with a study conducted by Al Hindi (2002) found no real differences between age groups regarding the satisfaction level (Al Hindi, 2002). The result is also consistent with Al-Doghaither (2004), who found that the oldest group of patients was more satisfied with physician care. The middle aged group (those aged 30-49 years) of patients were least satisfied with physician services.

The result goes with Uzun (2001) study, who found that patients between the ages of 18 and 34 gave the lowest ratings of satisfaction level and patients aged between 50 to 64 and more than 65 gave the highest ratings (Uzun, 2001). Unlike Mousa (2000), who found that the level of overall satisfaction was decreased as the age was increased and he conducted that the old people in Palestinian context tended to be less satisfied than the young (Mousa, 2000).

This result could be attributed to the researcher perceived fact that those who are in the age group of 45-60 might have more experience with the service and got adapted to it. Meanwhile, the younger patients may have more recent experience and have higher expectations. It also indicates that more concern and care has to be given to the younger patients to improve their satisfaction and hence the quality of care provided to them. This in turn would improve their overall compliance and adherence to treatment, which eventually would have an impact on their overall health and decreases the complications of such diseases, which could be reflected on the economy of the country.

Table 4.5, shows the differences between patients' satisfaction and place of living of the study population. People who live in the south have higher scores in all dimensions except the clinic environment where the people of the middle area scored the highest. At the mean time, people living in Gaza and North area have the lowest scores in all dimensions. The differences between the groups were statistically significant between patients' satisfaction and accessibility, communication and interpersonal relations, clinic environment, convenience and overall satisfaction (P value, 0.001, 0.019, 0.001, 0.001, 0.001 respectively). This indicates that the people of the south are more satisfied than other groups.

Table 4.5: **Differences in patients' satisfaction by place of living**

Dep. Var. **"Patients satisfaction"**	**Ind. Variable** **"Place of living"**	**Mean**	**Sum of squares**		**df**	**Mean square**	**F**	**P-value**
General impressions	North and Gaza	4.1459	Between Groups	.536	2	.268	1.945	.145
	Middle	4.1806	Within Groups	44.633	324	.138		
	South	4.2425	Total	45.169	326			
Accessibility	North and Gaza	3.6667	Between Groups	8.001	2	4.000	9.930	.001*
	Middle	3.8414	Within Groups	130.522	324	.403		
	South	4.0442	Total	138.523	326			
Communication and interpersonal relations	North and Gaza	3.7152	Between Groups	1.880	2	.940	3.998	.019*
	Middle	3.8364	Within Groups	76.170	324	.235		
	South	3.8952	Total	78.049	326			
Clinic environment	North and Gaza	3.4381	Between Groups	10.790	2	5.395	24.270	.001*
	Middle	3.8835	Within Groups	72.021	324	.222		
	South	3.6018	Total	82.811	326			
Technical quality	North and Gaza	3.3108	Between Groups	.449	2	.225	1.127	.325
	Middle	3.3723	Within Groups	64.605	324	.199		
	South	3.3982	Total	65.055	326			
Convenience	North and Gaza	2.5333	Between Groups	22.169	2	11.084	16.169	.001*
	Middle	2.7922	Within Groups	222.113	324	.686		
	South	3.1593	Total	244.282	326			
Overall satisfaction	North and Gaza	3.4801	Between Groups	2.249	2	1.124	8.331	.001*
	Middle	3.6426	Within groups	43.729	324	.135		
	South	3.6649	Total	45.978	326			

*Statistically significant

This result is consistent Abu Shuaib (2005) study, who found that there were significant differences between dimensions of women's perspectives and provinces, the women who were

living in Rafah had more positive perspective than women who were living in other provinces, while the women who were living in the Gaza province reported the lowest score. Our results could be attributed to the fact that the health centres in the south area are located right in the heart of the refugee camps. Again, the people from the south could have lower expectations than the people from other areas which could be due to the fact that people from the North and Gaza might have access to a wider range of private and more specialized centres which might have raised their expectations compared to their counterparts from the south. Understanding the reasons of lower satisfaction among people living in North and Gaza and Middle area, would help in implementing the measures to be taken to improve their satisfaction and hence their compliance.

Using ANOVA to compare means of satisfaction and level of education of the study population, table 4.6, shows that there is a real difference between patients' level of education and clinic environment and technical quality (P value 0.001 and 0.039 respectively). Meanwhile, there were no real differences between level of education and other domains of satisfaction. However, patients' who had a university degree or higher scored the highest in overall satisfaction (3.6403), while those with primary education scored the lowest (3.5808).

There was statistically significant difference between patients' level of education and clinic environment and technical quality. The results were consistent with other studies; Al Hindi (2002) study revealed that population of higher level of education reported a higher satisfaction level and with the Sahin, *et al*. (2007) study, they found less educated patients to have lower satisfaction than highly educated people. The results were not consistent with Mousa (2000) study, which revealed that the least satisfied group is the highly educated one, and the same was found with Abu Harbid (2004) study, which revealed no significant statistical relationship between educational levels and overall satisfaction. This finding was not consistent with Abu Shuaib (2005) study; the findings revealed that, there were no significant statistical differences between educational level and overall perspectives. Also, the study revealed that illiterate women reported positive experience more than educated ones.

Table 4.6: Differences in patients' satisfaction by level of education

Dependent variable "patient satisfaction"	Independent variable "Level of education"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	Illiterate	4.1358	Between Groups	.265	3	.088	.636	.593
	Primary School	4.1852	Within Groups	44.904	323	.139		
	Secondary	4.2087	Total	45.169	326			
	University or higher	4.2298						
Accessibility	Illiterate	3.7547	Between Groups	1.118	3	.373	.876	.454
	Primary School	3.8938	Within Groups	137.404	323	.425		
	Secondary	3.8116	Total	138.523	326			
	University or higher	3.9220						
Communication and interpersonal relations	Illiterate	3.9028	Between Groups	.909	3	.303	1.269	.285
	Primary School	3.7829	Within Groups	77.140	323	.239		
	Secondary	3.7776	Total	78.049	326			
	University or higher	3.8854						
Clinic environment	Illiterate	3.6745	Between Groups	5.620	3	1.873	7.839	.001*
	Primary School	3.7028	Within Groups	77.191	323	.239		
	Secondary	3.6753	Total	82.811	326			
	University or higher	3.3165						
Technical quality	Illiterate	3.2934	Between Groups	1.656	3	.552	2.813	.039*
	Primary School	3.3333	Within Groups	63.398	323	.196		
	Secondary	3.3533	Total	65.055	326			
	University or higher	3.5277						
Convenience	Illiterate	3.2934	Between Groups	1.631	3	.544	.724	.539
	Primary School	3.3333	Within Groups	242.651	323	.751		
	Secondary	3.3533	Total	244.282	326			
	University or higher	3.5277						
Overall satisfaction	Illiterate	3.5867	Between Groups	.128	3	.043	.301	.825
	Primary School	3.5808	Within Groups	45.850	323	.142		
	Secondary	3.5980	Total	45.978	326			
	University or higher	3.6403						

*statistically significant

Patients with primary school have scored the highest with regard to clinic environment domain, this could be attributed to that the patients with higher level of education have a higher expectations. Provision of good quality care to all patients is an ethical issue; the less educated should be the priority of health providers, intensive health education has to be the role in dealing with this group of patients. They might lack the professional degrees, or might have been deprived of their right to education, but sure they have feelings and can understand or could be helped to understand their health rights.

Table 4.7: Differences in patients' satisfaction by working status

Dep. Variable. "Patient satisfaction"	**Indep. Variable "Working status"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impression	Not working	260	4.1815	.36903	-.830	.407
	Working	67	4.2239	.38537		
Accessibility	Not working	260	3.8115	.63364	-2.235	.026*
	Working	67	4.0100	.70106		
Communication and interpersonal relations	Not working	260	3.7962	.48798	-1.416	.158
	Working	67	3.8909	.49075		
Clinic environment	Not working	260	3.6481	.48475	.928	.354
	Working	67	3.5840	.57381		
Technical quality	Not working	260	3.3258	.43093	-2.790	.006*
	Working	67	3.4948	.48361		
Convenience	Not working	260	2.7992	.85243	-1.317	.189
	Working	67	2.9552	.91109		
Overall satisfaction	Not working	260	3.5719	.36062	2.221	.027*
	Working	67	3.6855	.41937		

*Statistically significant

As shown in table 4.7, independent t test was used to compare means of satisfaction regarding employment status; the test revealed that working patients' elicited a higher level of satisfaction in all aspects except in the clinic environment related domain. The overall

satisfaction score reported a mean 3.6855 for the working and 3.5719 for the not working patients. The differences between the two groups have reached statistically significant level in overall satisfaction, technical quality and accessibility with P values 0.027, 0.006, and 0.026 respectively. This result indicates that working patients' are more satisfied than those who are not working. The higher mean of accessibility among the working patients' could be explained by the fact that they can afford to pay for transport in case that they live a way from the health centre as compared to the non working patients'.

Xiao and Barber (2008), in their study to examine the effect of perceived health status on three components of patients' satisfaction, found that working patients are more satisfied with the access. This result is consistent with our study which revealed that working patients' are more satisfied with accessibility, technical quality and overall satisfaction. Our result is also consistent with Al Hindi (2002) study, who found that the respondents with higher financial status tend to be more satisfied than the respondents with lower financial status. Unlike Abu Shuaib (2005), who revealed that no statistical significant difference between employments with perspective's dimension regarding to overall perspective. Also, Mousa (2000) study, revealed no statistical significance between the economical statuses regarding the satisfaction level. Unlike Hall and Dornan (1990) who reported that poor patients generally more accepting and more reluctant than rich patients to pass negative judgment.

The result could be attributed to either that patients who do not work have financial difficulties and this had a negative impact on their overall judgment and trust in most aspects of life, which eventually would reflect their dissatisfaction. Additionally, working patients might have more positive and brighter picture of life. Another reason could be that not working patients are frequent visitors to the health centres and their experience of crowd, long waiting time, and lack of drugs especially after the 2008 war on Gaza contributed to their dissatisfaction.

In comparing means of satisfaction between those who have received NCDs services in other organizations than UNRWA, table 4.8 shows the differences between the two groups, the reported means of satisfaction in the group received services in other organizations were higher than the other group (not received) in the domains of overall satisfaction, technical quality and communication and interpersonal relations (3.6448, 3.4857, and 3.8991

respectively). Although, the overall satisfaction has not reached a statistical significance level, there still were statistically significant differences in relation to technical quality and accessibility (P values 0.005 and 0.024 respectively).

An explanation to our finding could be that patients who received the services in other organizations in addition to UNRWA have experienced different systems and could have felt the differences in the way the service is delivered, which could contributed to their higher level of satisfaction, or they might have a lower expectations. Moreover, those patients who sought NCDs services in other organizations in addition to the UNRWA might have felt that the service is now integrated.

Table 4.8: Differences in patients' satisfaction by receiving services in other organizations

Dep. Var. "Patient satisfaction"	**Indep. Var. "NCD services in other organizations"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Yes	77	4.1870	.36032	-.086	.931
	No	250	4.1912	.37652		
Accessibility	Yes	77	3.6753	.82180	-2.300	.024*
	No	250	3.9067	.58097		
Communication and interpersonal relations	Yes	77	3.8991	.48107	1.718	.087
	No	250	3.7898	.48989		
Clinic environment	Yes	77	3.5536	.49021	-1.624	.105
	No	250	3.6600	.50651		
Technical quality	Yes	77	3.4857	.41365	2.846	.005*
	No	250	3.3218	.45021		
Convenience	Yes	77	2.8052	.88316	-.301	.764
	No	250	2.8392	.86181		
Overall satisfaction	Yes	77	3.6448	.36015	1.328	.185
	No	250	3.5799	.37956		

* Statistically significant

In Addition, the current siege on Gaza and poor economical situation made majority of the refugees to be totally dependent on UNRWA and not to seek medical care elsewhere, which is explained by the fact that even those who seek or have sought medical care elsewhere are now receiving service at UNRWA. Generally, retaining patients is a challenge in medical field; people always seek good quality care irrespective of their financial status. Ethically UNRWA has the responsibility to deliver good quality of care to Palestine refugees. UNRWA health department is doing an endless effort to improve the quality of care to patients and this is explained by rating services at UNRWA as better than other providers. Overall, it's good that UNRWA pay attention to those who receive care somewhere else, to know why they are seeking service in other places. This would help decision makers to improve services while taking in considerations patients views.

Annex 9 shows the difference in patients' satisfaction and the presence of complication. It illustrates that those who had no complications as a result of their disease reported a higher level of satisfaction in all the related domains except in communication and interpersonal relations domain with a mean 3.8549 as compared to 3.7970 for those who had no complication. The differences between the two groups didn't reach statistically significant level in any of the domains.

Table 4.9, illustrates the differences in level of satisfaction between those who have received educational material as compared to those who have not. The reported means of satisfaction were higher for those who have received educational material than who have not received in all domains except in accessibility domain where the difference between the two groups were very negligible and was in favour of the not received group. The differences between the two groups have reached statistical significance level in the overall satisfaction, convenience and technical quality with P value 0.001, 0.004 and 0.001 respectively. This result indicates that those who have received educational material were more satisfied than those who have not.

Findings revealed that 58.4% of the respondents received educational material. The analysis revealed that there was significantly higher level of satisfaction among those who received the educational material. Mousa (2000), stated that written material were available for family planning services as reported by 79.4% of the respondents. The lower percentage of

educational material received in our setting could be due to recall bias as most of the patient are elderly and have the disease diagnosed for long time which would have affected their recall of receiving or not receiving the material. Robinson *et al* (2008) study, found that there is a trend towards improving patients' satisfaction when provided with educational pamphlet regarding their treatment.

Table 4.9: Differences in patients' satisfaction by receiving educational materials

Dep. Var. "Patient satisfaction"	**Indep. Var. "educational materials"**	**N**	**Mean**	**S.D.**	**T**	**Sig**
General impressions	Received	191	4.2199	.35336	1.714	.088
	Not-received	136	4.1485	.39478		
Accessibility	Received	191	3.8517	.68449	-.018	.986
	Not received	136	3.8529	.60555		
Communication and interpersonal relations	Received	191	3.8558	.50550	1.768	.078
	Not received	136	3.7590	.46152		
Clinic environment	Received	191	3.6505	.52213	.662	.508
	Not received	136	3.6131	.47844		
Technical quality	Received	191	3.4469	.44232	4.255	.001*
	Not received	136	3.2390	.42556		
Convenience	Received	191	2.9455	.91074	2.942	.004*
	Not received	136	2.6706	.77308		
Overall satisfaction	Received	191	3.6563	.38519	3.551	.001*
	Not received	136	3.5093	.34502		

* Statistically significant

Moreover, the significantly higher level of satisfaction among those who received the material could be due to information provided in it, which helps them to understand the general measures they have to take to keep their disease well controlled. And this could be explained by their rating of the educational material as of high value (Annex10). Patients' education through different methods is of great value, it helps patients in understanding their disease in

better way it also reflects a good quality care provided to patients. Provision of educational material in terms of videos to broadcast in the waiting area would be good idea as it will help people use the waiting time and assist patients who are illiterate to benefit of this. Moreover, increasing consultation time and good communication skills would benefit illiterate patients to understand their illness and improve their adherence to instructions.

Mean differences in satisfaction were higher for those who had disability than those who had not except for general impression and accessibility domains as shown in annex 11. Although, there were differences between the two groups but these differences were not of any statistical significance. The overall satisfaction difference between the two groups could be due to lower expectation of those who had disability.

Table 4.10: Differences in patients' satisfaction by having specific health provider (doctor)

Dep. Var. "Patient satisfaction"	**Indep. Var. "specific doctor)"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Yes	90	4.1933	.41048	.088	.930
	No	237	4.1890	.35755		
Accessibility	Yes	90	3.7481	.60854	-1.785	.075
	No	237	3.8917	.66454		
Communication and interpersonal relations	Yes	90	3.8556	.40109	1.020	.309
	No	237	3.8004	.51885		
Clinic environment	Yes	90	3.5236	.53851	-2.366	.019*
	No	237	3.6772	.48478		
Technical quality	Yes	90	3.4894	.39015	3.267	.001*
	No	237	3.3114	.45770		
Convenience	Yes	90	2.7311	.85179	-1.290	.198
	No	237	2.8692	.86960		
Overall satisfaction	Yes	90	3.6323	.32378	1.103	.271
	No	237	3.5810	.39314		

* Statistically significant

Table 4.10, explains the difference in patients' satisfaction in relation to specific health provider (doctor). Although, the overall satisfaction mean differences were not high between the two groups (3.6323 for those who has seen specific doctor, and 3.5810 for those who has not). However, there were statistically significant differences between the two groups in both technical quality and clinic environment. Regarding technical quality the difference was in favour of those who has seen specific doctor with P value 0.001, on the other hand the difference in means related to clinic environment domain was in favour of those who have not seen a specific doctor and the P value was 0.019.

Similarly, table 4.11, illustrates the differences in patient satisfaction in relation to specific health provider (nurse). As shown in the table those who has seen specific nurse elicited a higher means of satisfaction than those who has not in all domains of satisfaction except in accessibility, clinic environment and convenience. The differences in the means of the technical quality have reached a high statistical significant level in favour of those who have seen specific nurse (P value 0.001).

On the one hand, Annex 12 shows the mean differences in patients' satisfaction in relation to the number of doctors' seen in the past year. Patients' who has seen 3doctors or less elicited a higher mean of overall satisfaction and all other domains except accessibility. Differences between the two groups were statistically significant in regard to technical quality and accessibility (P value 0.010 and 0.001 respectively). On the other hand, Annex13 elicits the differences in patients' satisfaction in relation to the number of nurses seen in the past year. Although, overall satisfaction was higher in the group seen 3 nurses or less, still this difference didn't reach statistical significant level except in accessibility (P value 0.005) and clinic environment (P value 0.024).

Having a specific health provider (doctor/nurse) was associated with higher level of overall satisfaction in our study. In particular patients expressed their higher level of satisfaction with technical quality domain with both doctors and nurses (P value 0.001and 0.001 respectively). Our findings were congruent with Al-Sakkak *et al* (2008) study, which revealed that longer consultation time, the use of regular doctor and the continuity of the health care provider were

all associated with higher level of satisfaction. Also, our findings were consistent with fan *et al.* (2005).

Table 4.11: Differences in patients' satisfaction by having specific health provider (nurse)

Dep. Var. "Patient satisfaction"	**Indep. Var. "specific nurse"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Yes	66	4.2333	.42330	1.054	.293
	No	261	4.1793	.35825		
Accessibility	Yes	66	3.7323	.55845	-1.677	.095
	No	261	3.8825	.67100		
Communication and interpersonal relations	Yes	66	3.8648	.37734	1.096	.275
	No	261	3.8031	.51364		
Clinic environment	Yes	66	3.5720	.51331	-1.137	.257
	No	261	3.6509	.50137		
Technical quality	Yes	66	3.5121	.31757	3.911	.001*
	No	261	3.3220	.46656		
Convenience	Yes	66	2.7788	.79779	-.550	.583
	No	261	2.8444	.88292		
Overall satisfaction	Yes	66	3.6585	.28788	1.847	.067
	No	261	3.5791	.39350		

* Statistically significant

Findings could be attributed to that continuity of the health provider, builds better patient's-provider relationship, continuity of care and better understanding of the patient's medical condition which would ultimately yields higher patient's satisfaction. This was supported by the findings that those patients who have seen less than 3 doctors have shown statistically significant level of satisfaction with technical quality dimension (annex 12).

Continuity of care and provider for patients with chronic diseases is the hallmark of the quality of services provided. This should be considered at the health centres management level at

UNRWA to help keeping continuity of the provider, the rapid change of medical officers breaks the cycle of continuity and makes patients under value their work. Additionally, keeping good recording on patients files would have the same impact as providers would follow the previous measure taken by their colleagues.

Table 4.12: Differences in patients' satisfaction by medication purchase

Dep. Var. "Patient satisfaction"	**Indep. Var. "Additional medication purchase"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Purchasing	77	4.1039	.40861	-2.343	.020*
	Not purchasing	250	4.2168	.35697		
Accessibility	Purchasing	77	3.7446	.76834	-1.471	.144
	Not purchasing	250	3.8853	.60947		
Communication and interpersonal relations	Purchasing	77	3.8042	.53550	-.233	.816
	Not purchasing	250	3.8191	.47526		
Clinic environment	Purchasing	77	3.4205	.53339	-4.135	.001*
	Not purchasing	250	3.7010	.47658		
Technical quality	Purchasing	77	3.4253	.49402	1.461	.145
	Not purchasing	250	3.3404	.43020		
Convenience	Purchasing	77	2.6883	.85255	-1.661	.098
	Not purchasing	250	2.8752	.86657		
Overall satisfaction	Purchasing	77	3.5589	.42715	-.882	.380
	Not purchasing	250	3.6063	.35837		

* Statistically significant

Table (4.12), shows he differences in patients' satisfaction and medication purchase, the not purchasing group elicited a higher overall satisfaction scores (3.6063). Although, the not purchasing group has a higher level of satisfaction except in technical quality dimension, the differences between the two groups has reached a statistical significant level only in general impression (P value 0.020) and clinic environment (P value 0.001). Patients who don't

purchase extra medication elicited higher overall satisfaction scores. Kurlande *et al. (*2009) reported that Lower income and higher out-of-pocket medication costs significantly related to non adherence for both diabetes and chronic pain. The lower level of satisfaction among patients who purchase medication which is not supplied as regular items could be explained by the hard economical situation and high level of unemployment.

Table 4.13: **Differences in patients' satisfaction by turning them back without service in the last year**

Dep. Var. **"Patient satisfaction"**	**Indep. Var. "turning back without service"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Yes	189	4.1704	.38200	-1.129	.260
	No	138	4.2174	.35800		
Accessibility	Yes	189	3.8042	.67276	-1.581	.115
	No	138	3.9179	.61847		
Communication and interpersonal relations	Yes	189	3.7501	.50627	-2.914	.004*
	No	138	3.9052	.45163		
Clinic environment	Yes	189	3.5430	.49201	-3.946	.001*
	No	138	3.7609	.49461		
Technical quality	Yes	189	3.3204	.45461	-1.904	.058
	No	138	3.4152	.43129		
Convenience	Yes	189	2.6677	.77134	-3.970	.001*
	No	138	3.0551	.93770		
Overall satisfaction	Yes	189	3.5286	.36566	-3.827	.001*
	No	138	3.6863	.37101		

* Statistically significant

Table 4.13, shows the differences in patients' satisfaction and turning them back without service. Those who have turned back without services elicited a lower level of satisfaction than who has not. The differences between the two groups were highly statistically significant in four dimensions, over all satisfaction, convenience, clinic environment and communication

and interpersonal. The overall satisfaction, convenience and clinic environment had same P value (0.001), while communication and interpersonal relations P value was (0.004).

It is obvious that leaving without being served cause patients' to be annoyed, as it is the case in our study, patients who left without being served in the last year irrespective of the reason were dissatisfied. No service means break in the continuity of care, which could explain the degree of dissatisfaction of those who left without service. On the other hand, the researcher found that 180 patients out of the 189 who left without being served reported lack of drugs as the main reason. Patients' dissatisfaction as a result of lack of drugs is out of UNRWA control and could be attributed to the siege on GS and the burning of UNRWA drug stores during the last War on Gaza.

Table 4.14: Differences in patients' satisfaction by regularity of visits

Dep. Var. "Patient satisfaction"	**Indep. Var. "interval between last 3 visits"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Regular	291	4.2247	.35146	4.937	.001*
	Irregular	36	3.9111	.42073		
Accessibility	Regular	291	3.8900	.61598	2.377	.022*
	Irregular	36	3.5463	.84008		
Communication and interpersonal relations	Regular	291	3.8314	.47378	1.397	.170
	Irregular	36	3.6880	.59270		
Clinic environment	Regular	291	3.6555	.50149	2.108	.036*
	Irregular	36	3.4688	.50033		
Technical quality	Regular	291	3.3684	.44209	.919	.359
	Irregular	36	3.2958	.48423		
Convenience	Regular	291	2.8371	.87241	.351	.726
	Irregular	36	2.7833	.81888		
Overall satisfaction	Regular	291	3.6116	.36340	1.936	0.60
	Irregular	36	3.4619	.44598		

* Statistically significant

Similarly, table 4.14 illustrates the differences in patients' satisfaction and regularity of visits. Regular patients' elicited higher means of satisfaction in all dimensions. Although, there were differences in all dimensions, the differences have reached a statistical significant level only in the dimensions of, general impression, accessibility and clinic environment P value (0.001, 0.022, and 0.036 respectively). Our findings were consistent with Biderman, A. *et al* (2009), and with Narayan *et al* (2003). Both studies found a positive relationship between treatment satisfaction and regularity of visit. (Alsakkak *et al*., 2008) study to assess patients' satisfaction with the primary health care centres affiliated to Riyadh military hospital in Saudi Arabia revealed that patients' satisfaction was inversely related to their average annual visit frequency to the health centres where regular patients' found to be more satisfied.

Our findings were also consistent with Al Qatari and Haran (1999) study, done in Qateef area, Saudi Arabia who found that regular users are significantly more satisfied than irregular users. An explanation to our findings could be that regular patients have found more comfortable, accessible and more convenient care at UNRWA. Moreover regular patients are more familiar with the personnel and the setting in the centre, as well as the fact that regularity reflects an ongoing relationship with providers, this in turn could have contributed to the higher level of satisfaction among regular patients as compared to their counterparts.

As shown in table 4.15, the differences in patients' satisfaction and control status have elicited a higher mean of satisfaction among the controlled group in all dimensions. However, these differences did not reach a statistically significant level. Although, there were no statistical differences in relation to control status, but controlled patients have shown higher level of satisfaction as compared to their counterparts. This finding is consistent with Biderman, A. *et al*. (2009), who found that diabetic patients with lower glycolated haemoglobin A1C (HbA1C) are more satisfied than those with higher HbA1C. Our finding seems to be logic and could be attributed to the fact that controlled patients have a brighter life than uncontrolled patients; in addition to that their disease control could have played a role on building trust in their providers and contributed to their higher level of satisfaction, moreover the opposite could be true for those who are uncontrolled.

Table 4.15: Differences in patients' satisfaction by control status of the disease

Dep. Var. **"Patient satisfaction"**	**Indep. Var.** **"control status"**	**N**	**Mean**	**S.D.**	**t**	**Sig**
General impressions	Controlled	182	4.2033	.37223	.712	.477
	Uncontrolled	145	4.1738	.37287		
Accessibility	Controlled	182	3.8663	.57985	.427	.670
	Uncontrolled	145	3.8345	.73401		
Communication and interpersonal relations	Controlled	182	3.8419	.48816	1.092	.276
	Uncontrolled	145	3.7825	.49040		
Clinic environment	Controlled	182	3.6422	.50937	.290	.772
	Uncontrolled	145	3.6259	.49880		
Technical quality	Controlled	182	3.3879	.42946	1.249	.213
	Uncontrolled	145	3.3259	.46667		
Convenience	Controlled	182	2.8473	.88259	.375	.708
	Uncontrolled	145	2.8110	.84649		
Overall satisfaction	Controlled	182	3.6209	.36374	1.390	.165
	Uncontrolled	145	3.5628	.38871		

These findings requires that health providers have to find ways of improving the control status of their patients through education of the patients of measures that need to be taken by them to improve their health and hence disease control in addition to the proper management. As this finding of the percentage of control status was the result of record review of the last 3 readings of blood pressure and blood glucose, good record keeping should be maintained.

Annex 14 illustrates differences in patients' satisfaction and access for disabled (health centre preparedness). The disabled patients who considered health centre as equipped to cope with their disability elicited a higher mean of overall satisfaction (3.7037), and all other dimensions except convenience. Although, the differences between the two groups were obvious, these differences didn't reach statistically significant level.

Annex 15 illustrates the differences between patients' satisfaction and type of disease. It is clear that differences between type of disease and satisfaction did not follow a unique pattern, by other means there were a mixture of differences, patients with both diseases (DM&HTN) had the highest score in overall satisfaction(mean,3.6348), technical quality(mean 3.3975), communication and interpersonal relations and general impression. While patients with DM scored the highest in accessibility and clinic environment (mean, 3.8995 and 3.6644). However, these differences did not reach statistically significant level in any of the dimensions. The findings are consistent with Biderman, A. *et al.* (2009), who found no association between satisfaction and co-morbidities.

An explanation to our results could be, having two co-morbid conditions can contribute to increase chances of developing complications and causes low quality of life which could have played a role in moderating expectations of patients with DM&HTN, which is reflected in our study by their higher scores in overall satisfaction. Simultaneously, health care providers could have paid more attention to patients with double burden, which contributed to their higher level of satisfaction in technical and interpersonal relations dimensions. Additionally patients with HTN were the most affected by shortage of drugs after the war on Gaza which could explain their overall dissatisfaction level.

Table 4.16, illustrates the differences between patients satisfaction and compliance to appointments as requested by the health providers. The high degree compliant patients' elicited higher means of satisfaction in all dimensions except in convenience where the patients who usually non-compliant scored the highest (3.0200). The non-compliance of some patients could be due to their dissatisfaction.

The results shows statistical significant differences in general impressions, communication and interpersonal, clinic environment, technical quality and overall satisfaction (P value, 0.001, 0.007, 0.005, 0.027 and 0.001 respectively). What can be concluded from this result is that compliant patients are more satisfied with the services provided to them.

Table 4.16: Differences in patients' satisfaction and compliance with appointment

Dependent variable "patient satisfaction"	Indep. Var. "compliance with appointment"	Mean	Sum of Squares		Df	Mean Square	F	P value
General impressions	To high extent	4.2352	Between Groups	2.895	2	1.448	11.096	.001*
	Sometimes	4.0393	Within Groups	42.273	324	.130		
	Usually not	3.8600	Total	45.169	326			
Accessibility	To high extent	3.8646	Between Groups	.419	2	.210	.492	.612
	Sometimes	3.8274	Within Groups	138.104	324	.426		
	Usually not	3.6667	Total	138.523	326			
Communication and interpersonal relations	To high extent	3.8574	Between Groups	2.384	2	1.192	5.103	.007*
	Sometimes	3.6319	Within Groups	75.666	324	.234		
	Usually not	3.7538	Total	78.049	326			
Clinic environment	To high extent	3.6786	Between Groups	2.620	2	1.310	5.292	.005*
	Sometimes	3.4420	Within Groups	80.192	324	.248		
	Usually not	3.5750	Total	82.811	326			
Technical quality	To high extent	3.3933	Between Groups	1.429	2	.715	3.639	.027*
	Sometimes	3.2393	Within Groups	63.625	324	.196		
	Usually not	3.1800	Total	65.055	326			
Convenience	To high extent	2.8644	Between Groups	2.630	2	1.315	1.763	.173
	Sometimes	2.6429	Within Groups	241.652	324	.746		
	Usually not	3.0200	Total	244.282	326			
Overall satisfaction	To high extent	3.6347	Between Groups	2.024	2	1.012	7.458	.001*
	Sometimes	3.4358	Within Groups	43.954	324	.136		
	Usually not	3.4556	Total	45.978	326			

* Statistically significant

The researcher found that compliant patients are more significantly satisfied more than non compliant. Like Tempier *et al* (2002) study, which revealed that compliant patients are more satisfied than non compliant. Our finding could be attributed to the fact that, patients who adhere to their appointment are usually compliant in every aspect (medication, recommendations, etc). Another explanation could be that their compliance is a reflection of their satisfaction, in reality, it is difficult to predict which one leads to the other, by other means compliance and satisfaction have a mutual relationship and both reflects patient's interest in the delivered care. This in turn means that health provider should pay more attention to the non compliant in order to understand the reason for their non-compliance in a trial to implement corrective measures.

Annex 16 shows the differences between patients' satisfaction and number of times turned back without service in the previous year. Patients who turned back more than 3 times have elicited a lower means of satisfaction than those who turned back less than 3 times in all dimensions except convenience. Though the differences between the two groups exist, still these differences have not reached the statistical significant level.

Annex17 studied the differences between patients' satisfaction and disease duration of the study population. Although the result of our study showed that patients who had the disease for shorter period has scored lower level of satisfaction in overall satisfaction where patients who had the disease for the long period (>15 years) scored the highest (3.5999), still these differences have not reached statistical significant level. At the mean time the presence or absence of complications have not affected patient satisfaction significantly (annex 9). The results are consistent with the finding of Da Costa *et al.* (1999) study, who found that disease duration is unrelated to patients' satisfaction. Our findings were inconsistent with the findings revealed by Biderman, A. *et al.* (2009); they found that there is statistically significant level between presence of any type of diabetic complication and treatment satisfaction.

Our finding could be supported by the assertion that it is not only the physical disease related variable is the only determinant of patient satisfaction, there are still more important issues related to the psychological experience which could be considered as more determinants of

satisfaction, and to the fact that as the disease progresses and complications start to appear, expectations lower.

Annex18 illustrates the differences between patients' satisfaction and type of complications of the study population. The results of our study revealed that patients who had complications (e.g. foot, ophthalmic) other than cardiovascular, cerebrovascular and neurological elicited higher levels of satisfaction in all the domains except general impressions and technical quality. These differences have reached statistical significant level in the domains of convenience and clinic environment only (p value 0.049 and 0.011 respectively). Unlike Biderman, *et al.* (2009) study, they revealed that the presence of foot complication was associated with lower treatment satisfaction.

Although foot complications are among the most serious complications as it is associated with fear of amputation, still an explanation to our findings could be that our patients either under estimating the danger of those complications due to lower level of education or those with other types of complication have lower expectations, hence higher satisfaction level. Also, they might consider the presence of cardiovascular or cerebrovascular complications as major and fatal conditions which could have contributed to raising their expectations and hence lower level of satisfaction among them.

The provision of regular drug supply, non inventory drugs especially cardiac patients and the presence of a cardiologist and echocardiogram at UNRWA, could have contributed to higher level of general impression among patients with cardiovascular complications. Additionally the occurrence of late complications such as CVD, and cerebrovascular diseases could lower patient's expectations which could be an explanation of this result.

Similarly Annex 19 shows the difference between patients' satisfaction and duration of complication. Patients who had the complication for less than 5 years showed higher scores of satisfaction in all dimensions except in accessibility. The differences between means of satisfaction and duration of complications have reached statistical significant level in convenience and clinic environment (P value, 0.005 and 0.001 respectively). This result indicates that patients with shorter period of complication have higher level of satisfaction

than those with longer period; this again can be attributed to the fact that the longer the complication without improvement the lower is the satisfaction.

Table 4.17, illustrates the differences between patients' satisfaction and type of treatment. Patients on life style modification only reported higher means in general impression (4.2000 and 3.6593); the differences between the groups have not reached statistically significant level. The findings of our study also revealed that patients on life style only and OHA elicited higher level of overall satisfaction; our findings have not reached a statistically significant level. Biderman, *et al*. (2009), study revealed that patients who were treated with diet alone were the most satisfied with treatment, and patients taking OHAs were more satisfied than those taking OHA and insulin $P < 0.001$).

Aside from the fact that patients who are on insulin therapy are exposed to certain degree of pain on daily basis; this could have a negative psychological impact on them and leads to certain degree of nuisance which could be reflected on their overall lower level of satisfaction. Moreover, patients on insulin therapy especially type 2 diabetics; have longer disease durations and more complications. Another explanation could be that those who are on life style modification only, might have the disease for shorter duration, and might not feel themselves different from non diseased population which could explain their higher level of satisfaction.

Table 4.17: Difference in patients' satisfaction and type of treatment

Dependent variable "patient satisfaction"	Independent "type of treatment"	Mean	Sum of Squares		Df	Mean Square	F	P value
General impressions	life style	4.2000	Between Groups	.001	3	.000	.004	1.000
	OHA	4.1918	Within Groups	45.167	323	.140		
	Antihypertensive	4.1914	Total	45.169	326			
	Insulin and or oral treatment	4.1880						
Accessibility	life style	3.6000	Between Groups	.861	3	.287	.674	.569
	OHA	3.9456	Within Groups	137.661	323	.426		
	Antihypertensive	3.8238	Total	138.523	326			
	Insulin and or oral treatment	3.8571						
Communication and interpersonal relations	life style	3.8462	Between Groups	.130	3	.043	.179	.910
	OHA	3.7771	Within Groups	77.919	323	.241		
	Antihypertensive	3.8099	Total	78.049	326			
	Insulin and or oral treatment	3.8346						
Clinic environment	life style	3.8000	Between Groups	.457	3	.152	.598	.617
	OHA	3.7066	Within Groups	82.354	323	.255		
	Antihypertensive	3.6188	Total	82.811	326			
	Insulin and or oral treatment	3.6194						
Technical quality	life style	3.3300	Between Groups	.180	3	.060	.299	.826
	OHA	3.3969	Within Groups	64.874	323	.201		
	Antihypertensive	3.3357	Total	65.055	326			
	Insulin and or oral treatment	3.3741						
convenience	life style	3.3600	Between Groups	1.663	3	.554	.738	.530
	OHA	2.7959	Within Groups	242.619	323	.751		
	Antihypertensive	2.8014	Total	244.282	326			
	Insulin and or oral treatment	2.8556						
Overall satisfaction	life style	3.6593	Between Groups	.107	3	.036	.251	.861
	OHA	3.6175	Within Groups	45.871	323	.142		
	Antihypertensive	3.5762	Total	45.978	326			
	Insulin and or oral treatment	3.6044						

Table 4.18: Difference in patients' satisfaction and evaluation of their health status

Dependent variable "patient satisfaction"	Indep. Variable "Health condition"	Mean	Sum of Squares		Df	Mean Square	F	P value
General impressions	Excellent	4.2600	Between Groups	2.112	4	.528	3.948	.004*
	Very good	4.2125	Within Groups	43.057	322	.134		
	Good	4.2000	Total	45.169	326			
	Fair	4.2046						
	Poor	3.8737						
Accessibility	Excellent	3.9333	Between Groups	1.698	4	.424	.999	.408
	Very good	3.8021	Within Groups	136.825	322	.425		
	Good	3.9213	Total	138.523	326			
	Fair	3.7931						
	Poor	3.7018						
Communication and interpersonal relations	Excellent	3.9333	Between Groups	2.941	4	.735	3.152	.015*
	Very good	3.8269	Within Groups	75.109	322	.233		
	Good	3.8401	Total	78.049	326			
	Fair	3.8090						
	Poor	3.4575						
Clinic environment	Excellent	3.6625	Between Groups	1.147	4	.287	1.131	.342
	Very good	3.5391	Within Groups	81.664	322	.254		
	Good	3.6959	Total	82.811	326			
	Fair	3.6164						
	Poor	3.5921						
Technical quality	Excellent	3.5917	Between Groups	6.610	4	1.653	9.105	.001*
	Very good	3.5156	Within Groups	58.444	322	.182		
	Good	3.3661	Total	65.055	326			
	Fair	3.2276						
	Poor	3.0421						
convenience	Excellent	3.3733	Between Groups	14.267	4	3.567	4.993	.001*
	Very good	2.7844	Within Groups	230.015	322	.714		
	Good	2.8126	Total	244.282	326			
	Fair	2.8207						
	Poor	2.3053						
Overall satisfaction	Excellent	3.7784	Between Groups	3.382	4	.845	6.391	.001*
	Very good	3.6421	Within Groups	42.596	322	.132		
	Good	3.6165	Total	45.978	326			
	Fair	3.5345						
	Poor	3.2827						

* Statistically significant

Table 4.18, illustrates the mean differences between patients' satisfaction and evaluation of their health. It is clear from the table that, patients' who rated their health as being poor have

scored the lowest in all dimensions except clinic environment , while those who rated their health as being excellent scored the highest in all except clinic environment as well. The differences between groups reached statistical significant level in 5 dimensions, overall satisfaction, convenience, technical quality, communication and interpersonal relations and general impression (P value, 0.001, 0.001, 0.001, 0.015, and 0.004 respectively).

The results were consistent with (Elhaj, 2008), who studied patients perception about health services provided at EGH in Gaza Strip. The results revealed that those who rated their health as excellent reported better perception scores. Also, result is consistent with Xiao and Barber study which revealed that those who perceive their health as excellent are more likely to report higher satisfaction in access, the provider and technical care (Xiao and Barber, 2008). Crow and colleagues (2002) found that poorer physical health status is related to lower satisfaction.

The result is also consistent with a study done by Haviland, Morales, Reise and Hays the findings revealed that ratings of health care were likely to be more positive among those in better health. Result could be attributed to that patient who perceive their health as excellent needs less care, have better attitude and are more enthusiastic, they usually see the positive aspect of the issue, ignore minor negatives, this leads to less conflict and eventually more satisfaction (Haviland, Morales, Reise and Hays, March 2003).

Annex 20 illustrates differences in patients' satisfaction and evaluation of UNRWA's NCDs services in comparison to other service providers, patients who evaluated UNRWA's services as being very satisfying scored the highest in all domains of satisfaction except accessibility where the not satisfying group has scored the highest (4.0000). Despite of clear differences in the means of satisfaction, still these differences have not reached statistical significant level except in overall satisfaction (P value, 0.041). Out of this result we can conclude that patients are more satisfied with the NCDs services at UNRWA as compared to the other service providers. The differences in patients' satisfaction and the reason for purchasing additional were not statistically significant (Annex 21).

Again, Annex 22 studied the differences in patients' satisfaction and the reasons for turning back without service. Although, differences between the two groups were noted, but these differences have reached a statistical significant level only in general impression dimension

only (P value, 037). Annex 23 studied the differences between patients' satisfaction and nature of work. Skilled workers elicited higher scores in accessibility, communications, clinic environment, convenience and overall satisfaction (means, 4.3333, 4.0440, 3.7857, 3.4571 and 3.7725 respectively). Meanwhile, patients who worked as employees elicited higher scores in general impression and technical quality (3.5459 and 3.7725 respectively). These results are consistent with Al-Eisa *et al*, who found no real differences between nature of job and satisfaction (Al-Eisa *et al*, 2005). The higher scores in technical quality and general impression domains could be attributed to the difference in the level of education between the groups. The differences between the groups did not reach statistical significant level in any of the domains. This means that more care and health education session have to be delivered to those groups with lower satisfaction.

Chapter five

Conclusions and Recommendations

5.1 Conclusions

This study was carried out to understand patients' perception, experiences, concerns, and views about the NCDs services provided at UNRWA health centres in Gaza Strip. The study findings might help in improving the quality of services provided to the concerned patients'. Additionally, it might point to the importance of patients' centred care as a tool of quality improvement process.

Furthermore, by providing some satisfaction indicators, it might help in improving other services provided by the agency in Gaza. The study explored the main domains of patients' satisfaction with the service, it also explored the differences within socio-demographic, disease related and service delivery variables with respect to the patients' satisfaction level. The response rate was high at 81.8%. Moreover, the reliability coefficient of the study tool was high at 0.93.

The reported overall satisfaction level was 71.9%. The domains of satisfaction about NCDs services were extracted to include, general impressions, communication and interpersonal relations, accessibility to services, technical quality, convenience, and clinic environment.

The highest expressed level of satisfaction was with general impressions (83.3%). This reflects to what extent patients are generally satisfied with the NCDs services provided at UNRWA in spite of their criticism of some issues. Satisfaction is highly associated with willingness to recommend NCDs Services to relatives and/or friends. Still there is a room for further improvement and focus should be on the remaining percentage.

Additionally patients' expressed moderate level of satisfaction with accessibility. Physical accessibility is obvious from the open door policy and the free of charge services. To improve accessibility to information, more attention has to be given to provide patients with more information about their disease, for example their current situation, outline of the management plan, drugs and their adverse effects, blood results, etc. All these reflect the ability of the health provider to communicate effectively with patients and shows counselling competency of the provider.

Moderate satisfaction with communication and interpersonal were also reported. Building a better relationship with the provider, increase patient's-doctor contact time, and respect to humanity are all ways to improve communication and interpersonal relations, UNRWA health providers should pay more attention to these issues. Provided the very busy and overloaded health centres at UNRWA, this can not be achieved unless we implement appointment system by date and time. This issue is not as easy as we think, as it is highly dependent on the degree of cooperation from patients. Changing behaviour of the people, particularly with cultural issues takes long time, needs patience and persistence.

Again moderate satisfaction level was reported with clinic environment. Patients have expressed their satisfaction with the improving physical environment, cleanliness and comfort at health centres. This is another area of improvement, which UNRWA is highly concerned about.

On the other hand, lower level of satisfaction was reported with technical quality. Although, the technical competency of the UNRWA health providers is as good as other places, still the problem remains with the overload and the huge number of patients has to be seen by the provider at one session. This is again an issue of changing behaviour and implementing appointment system which takes long time to achieve but is not impossible and UNRWA health staffs are working hard to achieve this.

Noticeably convenience reported the lowest level of satisfaction. As a result of crowded health centres patients felt inconvenient as they have to wait for long time before being served. They also expressed their dissatisfaction about the crowdedness and noise which is the obvious result of overloaded health facilities. Improving the appointment system and physical environment will alleviate the suffering of the patients and improve convenience level. Overall improvement in the quality of services in all dimensions will encourage patients to continue receiving medical care at UNRWA NCDs clinics, which will eventually have an impact on their health status and improve the outcome.

The study showed significant differences with the socio-demographic variables regarding satisfaction levels. The older patients rated the satisfaction with the services provided to them higher than the younger patients. The unmarried patients rated the services higher than the

married patients. Males elicited higher level of overall satisfaction with the service than females. In addition, people of the south significantly rated their satisfaction with services higher than people form other areas. Moreover, highly educated patients' have had higher levels of satisfaction than patients with lower educational level. Additionally, employed patients reported higher level of satisfaction than unemployed. This means that more attention should be paid to those who are unemployed to help them overcome their overall dissatisfaction which might be a result of their poor socio-economic status. Unemployment level was high at the time of data collection.

Patients' who had NCDs services in other organizations elicited higher satisfaction levels than those who had not. Additionally, patients who have received educational materials were more significantly satisfied than those who have not. This reflects the importance of providing good information to the patients and its effect on their health status and satisfaction. Moreover, patients who has seen specific health provider either doctor or nurse were significantly more satisfied than those who has not. This in turn supports the evidence that continuity of the provider had significant implications of patient's satisfaction.

Patients who don't buy additional medications showed higher level of satisfaction than their counterparts. This means that adding financial burden of those who have poor socio-economic situation have an impact of their satisfaction. Additionally, patients who have not turned back without being served in the past year were significantly more satisfied than their counterparts. This reflects the degree of dissatisfaction with lack of drug as being the main reason for turning back without service, which in turn reflects the impact of siege on Gaza on patients' health and perception. Regular visitors rated the services provided to them higher than did their counterparts. In addition, compliant patients with the given appointment showed significantly higher levels of satisfaction than others. This indicates that continuity of care is an important determinant of patient's satisfaction. Similarly, controlled patients elicited higher levels of satisfaction than the uncontrolled.

Patients with the double burden showed higher level of satisfaction than others. Moreover, patients who had the disease for longer duration reported overall satisfaction more than those with shorter duration. This might indicate that it is neither the type of disease nor its duration

is the only determinant of patients' satisfaction. Patients who rated their health as excellent have had significantly higher levels of satisfaction as compared to those with poor health, additionally, patients with no complication were more satisfied than those who had complications; moreover, patients who had the complication for less than 5 years showed higher scores of satisfaction this means improving the quality improves the outcome and could improve patient's satisfaction. Furthermore, Patients on life style only and OHA elicited a higher level of overall satisfaction. This could reflect the degree of pain insulin treated patients suffers and how it affects their perception.

Patients who evaluated UNRWA's services as being very satisfying were significantly satisfied more than others. Out of this result we can conclude that patients are more satisfied with the NCDs services at UNRWA as compared to the other service providers and this is expressed in their willingness to recommend UNRWA's NCDs services to others.

5.2 Recommendations

- The study extracted six important domains that might constitute a framework for patients' satisfaction. Health managers, professionals and policy makers need to consider these factors and deliberately consider them.
- The study found that the general impressions with the NCDs services are perceived positively by patients. Therefore, it needs to be reinforced through addressing the domains of satisfaction identified in this study.
- The study revealed that communication and interpersonal are moderately perceived by patients, further improvement is vital in this issue as communication is an important domain perceived by patients in assessing satisfaction. Communication improvement measures include:

    1- Training of health providers including doctors, nurses, clerks and others on how to improve their communication skills.
    2- Design strategies that support and enhance patient-centred care in order to make patients more involved in the process of care.

- The study found that patients are moderately satisfied with the clinic environment, thus reinforcement measures has to be taken to maintain high standards of cleanliness. Additionally, the study revealed that convenience domain was an area that requires attention. Improving the infrastructure would improve both.
- The perceived quality of the technical work is a weak point that needs more attention. To improve the technical quality, the following has to be taken into considerations:

  1- In-service training of the health providers to continually improve their medical skills, special attention has to be given for the newly recruited employees to train them on technical instructions to be more oriented with the system through the implementation of proper orientation programme.
  2- Strict measures have to be taken to implement appointment system by date and time, this will ease the life of both the health professionals and the patients as it would help in improving the contact time which will be reflected on the quality.
  3- Monitoring system to identify the weaknesses and strengths, which will enable the system to reinforce the strengths and implement corrective measures to improve the weaknesses.

- The study pointed that being married, young, living outside the Southern Governorates, less educated elicited lower levels of satisfaction, those patients require more attention by managers and health professionals.
- Policy makers and manager should develop a tool that includes indicators that helps in evaluating patients' satisfaction.
- Further studies are needed, to explore more domains of patients' satisfaction that might have not been explored in this study, additionally studies at national level that include MOH, UNRWA and NGO's to assess issues related to the quality of health services.

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Annexes

ANNEX 1: Helsinki approval

Palestinian National Authority
Ministry of Health
Helsinki Committee

السلطة الوطنية الفلسطينية
وزارة الصحة
لجنة هلسنكي

التاريخ2009/6/3

Name:

الاسم: زهير محمود رشدي الخطيب

I would like to inform you that the committee has discussed your application about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:-

Patients' Satisfaction with the Non Communicable Diseases Services at UNRWA Health Centers in Gaza Strip

In its meeting on June 2009

و ذلك في جلستها المنعقدة لشهر 6 2009

and decided the Following:-

To approve the above mention research study.

و قد قررت ما يلي:-

الموافقة على البحث المذكور عاليه.

Signature
توقيع

Member
عضو

Member
عضو

Chairperson

Conditions:-

- Valid for 2 years from the date of approval to start.
- It is necessary to notify the committee in any change in the admitted study protocol.
- The committee appreciate receiving one copy of your final research when it is completed.

ANNEX 2: UNRWA's CFHP approval

Al-Quds University
Jerusalem
School of Public Health

جامعة القدس
القدس
كلية الصحة العامة

7/11/2009

Approved

الأخ/د. محمد المقادمة المحترم
مدير دائرة الصحة–وكالة الغوث
تحية طيبة وبعد،،،

الموضوع: مساعدة الطالب زهير الخطيب

يقوم الطالب المذكور بأعلاه بإجراء بحث بعنوان :

"Patients Satisfaction with the Non –Communicable Diseases Services at UNRWA Health Centers in Gaza Governorates "

كمتطلب للحصول على درجة الماجستير في الصحة العامة– مسار إدارة صحية و عليه نرجو التكرم للإيعاز لمن ترونه مناسب لتسهيل مهمة الطالب في جمع البيانات اللازمة من عيادات خدمات الأمراض المزمنة في عيادات الرعاية الأولية التابعة لإدارتكم الموقرة .
علماً بأن المعلومات ستكون متوفرة لدى الباحث و الجامعة فقط.

و اقبلوا فائق التحية و الاحترام،،،

د. بسام أبو حمد
منسق عام برامج الصحة العامة

نسخة:الملف

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ANNEX 3: Invitation for participation in a study

Patients' Satisfaction with the Non-communicable Diseases Services at UNRWA Health Centres in Gaza Governorates.

Dear Client,

Thank you for accepting to participate in this study, which is a part of my Master degree thesis at the School of Public Health- AlQuds University. The purpose of this study is to assess "Patients' Satisfaction with the Non-communicable Diseases Services at UNRWA Health Centres in Gaza Governorates". This questionnaire reflects your views and the results of this research will bring recommendations for the decision makers, which we hope will be considered and lead to the improvement of the quality of NCDs services provided to you.

Confidentiality is assured and you will not be known if you participate. No name is needed.

Please answer all questions according to your opinion and views.

No right or wrong answers.

You may not answer any of the questions if you wish.

Answering these questions might take 20 minutes.

Although I welcome your participation, be sure that participation is optional and you have the right not to participate if you don't wish.

Thank you for your time and cooperation.

The researcher

Zoheir Elkhatib

School of public health

AlQuds University

ANNEX 4: Questionnaire "English version"

Thank you for taking the time to fill in this questionnaire.

Section 1: Questions about yourself

These questions are about you. To help us to understand your answers to the other set of questions, we need some information about you. This information is confidential and will not be identified by providing this information.	
1	Sex □Male □Female
2	Age in years ----------
3	Marital status □ Single □ Married □ Divorced □ Widow □Others
4	Place of living □ The North and Gaza □ The Mid-zone □ The South
5	Level of education completed □Illiterate □Primary school □ Secondary school □University or higher □Others
6	Current occupation status □Not working □Working □Not applicable
7	If working, nature of work □Employee □Skilled worker □Unskilled workers □Others specify …….
8	You are currently suffering from □DM □ HTN □ DM&HTN
9	Number of years since the diagnosis of your condition ----------
10	Have you suffered any complication as a result of your disease? □ YES □ NO (If your answer is No go to Ques.13)
11	What are those complications? You may select more than one option. □Cardiovascular □Ophthalmic □Renal □Neurologic □Amputation □Cerebrovascular □Others □ Don't know
12	For how long do you experience this/these complication(s)? ----------
13	Have you ever received NCDs services anywhere else apart from UNRWA? □ Yes □No (If your answer is yes answer the following question if your answer is No go to question 15).
14	How do you rate the NCDs services at UNRWA in comparison to other providers? □ vey satisfying □ satisfying □fair □ not satisfying □ absolutely not satisfying
15	I received a booklet explaining the nature of my disease and the measures I have to take to keep my disease well controlled. (If No, please ignore the next question). □ Yes □No
16	To what extent do you find this booklet beneficial for you?
	□ To high extent □To some extent □Not at all

17	What type of treatment do you have at UNRWA for your disease? (You can select more than one option). □ Life style □ OHA □ Insulin □ insulin &OHA □Antihypertensive □Antihypertensive & insulin □Antihypertensive & OHA □Antihypertensive, OHA & Insulin
18	In general, how would you rate your health? □ Excellent □ Very good □ Good □ Fair □ Poor
19	Do you buy other medication for treatment of your condition than those provided by UNRWA? □ Yes □ No If yes, Why? □ Not available □ Insufficient □Bad quality □Others
20	Do you have a specific health provider (Doctors and nurses) in the health centre? □Doctor □ Yes □ No □Nurse □ Yes □ No
21	How many health providers have you seen in the last year? □Doctor ---------- □Nurse----------
22	Do you have any disability/ mobility restriction? (If <u>No</u> go to question 24). □ Yes □ No
23	Is the health centre well equipped to facilitate your movement through different departments? □ Fully equipped □ Partially equipped □ Not at all
24	Do you present to the UNRWA NCDs Clinic as requested by health provider? □To high extent □Sometimes □Usually not
25	Have you been turned back from the NCD clinic without receiving the service you came to receive (last year)? □Yes □How many times ---------- □ No If your answer is <u>Yes</u> please answer the next question, If <u>No</u> please ignore the next question.
26	Reason for returning back without receiving the service you came to receive □Lack of drugs □Over crowded □No staff present □Came on wrong time □Others

OK

Section 2: Your experience with NCDs services.

Score 1-5
Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1).

NO.	Questions	Score
1.	I had a good experience with the NCDs services at this health centre.	
2.	I received the type of NCDs services I expected.	
3.	I had a confidence in the health centre staff.	
4.	I perceive that the age of staff is acceptable in terms of performance.	
5.	I perceive that the gender of the staff is acceptable in terms of performance.	
6.	Overall I'm satisfied with the follow up programme at the health centre.	
7.	If a friend or a relative needs same service, I will recommend this health Centre to him.	
8.	I will continue to receive services in this health center.	
9.	I'm not satisfied with the NCDs services I received in the last year.	
10	There are some things about the NCDs services I received that could be better.	
11	Over all I'm satisfied with the way the NCDs service is provided at this health centre.	
12	I was involved in the process of my care.	
13	The number of health centre staffs was adequate in the clinic.	
14	Health centre staff worked well together as a team.	
15	My NCDs services were delivered in an appropriate manner.	
16	I had doubts about the ability of the health centre staff involved in my care.	
17	Health centre staff exposed me to unnecessary risks.	
18	Provider helped me in reaching a decision about my treatment options.	
19	I can easily request change of my medication if I feel that I'm not doing well with the existing medicines.	
20	The doctor examines me carefully.	
21	The doctor seriously addresses my complaints.	
22	The pharmacist explains to me how to take the medication	
23	I felt that my health condition has improved after I attended this clinic	
24	I'm satisfied with the frequency of the tests I have.	
25	I was given enough information about my condition.	
26	I was given enough information about my treatments, including possible alternatives and any associated side effects.	
27	I received sufficient information on how frequent I will have my tests.	

28	I received sufficient information on how to be prepared for the tests.	
29	I perceive that privacy/ confidentiality for counseling is acceptable.	
30	I perceive that privacy/ confidentiality for examination is acceptable.	
31	Staff gave me clear explanation about my test results.	
32	I can ask any medical question without any problem.	
33	Health centre staff explained things to me in a way I could understand.	
34	I had difficulty in communicating with the health centre staff.	
35	I have a perception that I received satisfactory answers to my questions.	
36	Health centre staff treated me in a friendly and courteous manner.	
37	Health centre staff consistently demonstrated willingness to listen to me.	
38	Health centre staff ignored what I told them sometimes.	
39	Health centre staff took enough notice of my views and wishes.	
40	Provider makes sure that I understood the treatment plan clearly.	
41	Health centre staff respected me as a person.	
42	Health centre staff introduced themselves to me.	
43	Health centre staff acted too business like and impersonal to me.	
44	The standard of respect shown to me by health centre staff was excellent.	
45	Health centre staff greeted me properly when I arrived.	
46	The health centre staffs are polite and respectful.	
47	The health centre staffs are there when needed.	
48	The health centre staffs are helpful all the time.	
49	I'm satisfied with the way the health centre staff treated me in general.	
50	My needs were considered and respected by all staff.	
51	I felt ignored at the health centre.	
52	The health centre staff spent sufficient time with me.	
53	I felt that there was a gap between me and the health provider.	
54	Health centre staff responded quickly to my requests.	
55	I viewed the health centre staff as friends.	
56	The location of the health centre is convenient.	
57	It was easy for me to get to the health centre.	
58	I have to wait for long time before the issue of my file.	
59	I have to wait too long to be seen by the doctor.	
60	The time I spend with the doctor is enough.	
61	I have to wait for long time before receiving my medications.	
62	The medications needed to treat my disease are available all the time.	
63	If I fail to attend the health centre for more than 3 months the health centre staff contact me to know the reason.	
64	Clinic arrangement and preparation provides adequate privacy.	
65	The clinic is crowded.	
66	The clinic is noisy.	

67	The examination room temperature is fine.	
68	The examination rooms are clean.	
69	The health centre toilets are clean.	
70	There are proper waiting areas in the health centre.	
71	There are proper comfortable seats.	
72	The examination rooms in the health centre are well ventilated.	

73	In general, how do you rate your satisfaction about the health services provided to you at this health centre?				
	□Excellent	□Very good	□Good	□Fair	□Poor
74	Last 3 blood pressure readings for hypertensive patients and patients with DM and Hypertension.				
	----------	----------	----------		
75	Last 3, 2hrs PPPG readings.				
	----------	----------	----------		
76	Control status (according to UNRWA'S technical instructions).				
	□ Controlled		□ Uncontrolled		
	□ HTN		□ HTN		
	□ DM		□ DM		
	□ HTN&DM		□ HTN&DM		
77	Interval between last 3 visits (patient's record).				
	□ regular follow up		□Irregular follow up		
78	What are the things you liked the most and things you disliked the most in the NCDs Services at this health centre?				
	□Liked		□Disliked		
	□----------		□----------		
	□----------		□----------		
	□----------		□----------		

Thank you for your time and cooperation.

ANNEX 5: Questionnaire "Arabic version"

شكرا جزيلا لأخذك الوقت لتعبئة هذه الاستبانة عن رضا المنتفعين بخدمات الأمراض المزمنة بالمراكز الصحية التابعة لوكالة الغوث في محافظات قطاع غزة

القسم الأول/ أسئلة شخصية

هذه الأسئلة تخصك. لكي تساعدنا على فهم إجاباتك للقسم الأخر من الأسئلة نحتاج لبعض المعلومات عنك ، هذه المعلومات محاطة بالسرية التامة ولن يكشف عن هويتك من خلال تزويدك لنا بها.	
1	الجنس □ذكر □ أنثى
2	العمر بالسنوات ----------
3	الحالة الاجتماعية □ أعزب □ متزوج □ مطلق □أرمل □غير ذلك
4	مكان السكن □غزة و الشمال □المنطقة الوسطى □ الجنوب
5	مستوى التعليم □ أمي □يقرأ و يكتب □ثانوي □ جامعي □أخرى
6	الوضع المهني الحالي ---------- □ لا يعمل □ يعمل □ غير مطابق
7	إذا كنت تعمل، ما هي طبيعة العمل؟ □ موظف □ مهني □ غير مهني □ أخرى (حدد)--------
8	تعاني حالياً من □مرض السكر □ الضغط □السكر و الضغط
9	منذ متى و أنت تعاني من هذا المرض ؟----------
10	هل عانيت من أي مضاعفات نتيجة لمرضك □ نعم □ لا إذا كانت الإجابة لا اذهب إلى سؤال رقم 13
11	ما هي هذه المضاعفات؟ يمكن اختيار أكثر من بديل □قلبية □جلطة دماغية □عيون □كلى □أعصاب □بتر □لا أعلم □غير ذلك
12	منذ متى و أنت تعاني من هذه المضاعفات ؟ ----------
13	هل تلقيت خدمات الأمراض المزمنة في أي مكان آخر غير عيادة وكالة الغوث □ نعم □ لا
	إذا كانت الإجابة بنعم الرجاء الإجابة على السؤال التالي ، و إذا كانت الإجابة لا اذهب إلى سؤال رقم 15

14	كيف تقيم الخدمات المقدمة في عيادة الوكالة مقارنة بالأماكن الأخرى □مرضية جدا □ مرضية □ مقبولة □ غير مرضية □ غير مرضية بتاتا
15	تلقيت كتيب يوضح طبيعة مرضي والمقاييس التي يجب الحفاظ عليها ليكون مرضي تحت السيطرة الجيدة □ نعم □ لا
16	في حال نعم كيف تقيم مدى الاستفادة من هذا الكتيب □ إلي حد كبير □ إلي حد ما □ غير مفيد
17	ما نوع العلاج الذي تتلقاه من الوكالة؟ يمكن اختيار أكثر من بديل □الحمية □ حبوب للسكر □ حبوب للضغط □ الأنسولين □ الأنسولين و حبوب للسكر □حبوب للضغط و أنسولين □ حبوب للضغط و حبوب للسكر □ حبوب ضغط وسكر وأنسولين
18	كيف تقيم صحتك بصورة عامة ؟ □ ممتازة □جيدة جداً □ جيدة □ مقبولة □ سيئة
19	هل تشتري علاجات أخرى لعلاج مرضك غير التي تزودك بها الوكالة؟ □ نعم في حال نعم، لماذا؟ □ لا □غير متوفرة □غير كافية □رديئة النوعية □ غير ذلك
20	هل لديك مقدم خدمة معين (طبيب – ممرض) في المركز الصحي طبيب □ نعم □ لا ممرض □ نعم □ لا
21	كم عدد مقدمي الخدمة الذين قدموا لك الخدمة خلال العام الماضي □طبيب ---------- □ممرض----------
22	هل تعاني من إعاقة ؟ □ نعم □ لا في حال كانت الإجابة لا اذهب إلي سؤال رقم 24
23	في حال نعم ، هل تصميم المركز الصحي يسهل لك الحركة داخل الأقسام المختلفة ؟ □مجهز تماما □ جزئياً □غير مجهز
24	هل تأتي إلى عيادة الأمراض المزمنة في الوكالة كما يطلب منك مزودي الخدمة ؟ □بدرجة كبيرة □ أحياناً □عادة لا
25	هل عدت يوماً خلال السنة الأخيرة من قسم الأمراض المزمنة دون تلقي الخدمة التي أتيت من أجلها ؟ □ نعم □عدد المرات □ لا إذا كانت الإجابة نعم رجاء الإجابة على السؤال التالي، و إذا لا رجاء تجاهل السؤال التالي
26	سبب عودتك دون تلقي الخدمة التي أتيت من أجلها □نقص الأدوية □عدم وجود مزودي الخدمة □ أسباب أخرى □الازدحام الشديد □مجيئك في غير موعدك

القسم الثاني : تجربتك مع الخدمات المقدمة في قسم الأمراض المزمنة. النقاط من 1-5: أوافق بشدة (5) ، أوافق (4) ، غير متأكد (3) ، لا أوافق (2) ، لا أوافق بشدة (1).

	لدي تجربة جيدة مع خدمة الأمراض المزمنة في هذا المركز الصحي .	
	حصلت على نوع الخدمة التي توقعتها .	
	أثق في مزودي الخدمة .	
	بالنسبة لي أن أعمار مزودي الخدمة مقبول من ناحية الأداء	
	بالنسبة لي أن جنس مزودي الخدمة مقبول من ناحية الأداء	
	إجمالا أنا راضي عن برنامج المتابعة في هذا المركز .	
	إذا احتاج صديق أو قريب لنفس الخدمة ، سأوصيه بالتوجه إلي نفس المركز .	
	سأستمر بتلقي الخدمة من هذا المركز .	
	أنا غير راضي عن خدمة الأمراض المزمنة التي تلقيتها خلال العام الماضي .	
	هناك أشياء تتعلق بخدمة الأمراض المزمنة التي تلقيتها من الممكن تطويرها .	
	إجمالاً أنا راضي عن الطريقة التي تقدم من خلالها الخدمة في هذا المركز .	
	أشارك بفعالية في عملية علاجي .	
	أرى أن عدد مقدمي الخدمة كاف في المركز الصحي .	
	أرى أن مقدمي الخدمة يعملون كفريق أثناء تقديم الخدمة.	
	خدمة الأمراض المزمنة المقدمة أعطيت لي بطريقة مناسبة.	
	اشك في مقدرة مقدمي الخدمة المشاركين في علاجي	
	عرضني مقدمي الخدمة لخطر كان بالإمكان تفاديه .	
	ساعدني مقدمو الخدمة على اختيار طريقة علاجي .	
	في حال عدم حدوث تحسن في حالتي مع نوع معين من العلاج يمكنني بسهوله طلب استبداله من مقدمي الخدمة .	
	يفحصني الطبيب بعناية .	
	يأخذ الطبيب شكواي على محمل الجد .	
	يوضح لي الصيدلي كيفية استعمال العلاج .	
	شعرت بأن حالتي الصحية تحسنت بعد ترددي على هذا المركز .	
	اشعر بالرضا من تكرار و عدد التحاليل التي تجرى لي	
	قدم لي مزودي الخدمة معلومات كافية عن حالتي المرضية .	
	قدم لي مزودي الخدمة معلومات كافية عن علاجي ، البدائل المتاحة ، و الأعراض الجانبية المصاحبة للعلاج .	
	تلقيت معلومات كافية عن عدد مرات الاختبارات التي يجب أن تجرى لي .	

	تلقيت معلومات كافية عن التحضيرات الواجب علي عملها عند إجراء الاختبارات .	
	يراعي مقدمو الخدمة الخصوصية و السرية أثناء الاستشارة .	
	يراعي مقدمو الخدمة الخصوصية و السرية أثناء الفحص .	
	شرح لي مقدمو الخدمة نتائج تحاليلي بوضوح .	
	أستطيع السؤال عن أي موضوع طبي متعلق بمرضي بدون مشاكل.	
	وضح لي مقدمي الخدمة الأمور المتعلقة بمرضي بطريقة مكنتني من فهمها بسهولة.	
	واجهت صعوبة في التواصل مع مقدمي الخدمة .	
	تلقيت إجابات شافية لأسئلتي .	
	عاملني مقدمو الخدمة بطريقة ودودة .	
	أبدى مقدمو الخدمة رغبة بدرجة عالية للاستماع لي.	
	تجاهل مقدمو الخدمة ما أخبرتهم به أحياناً .	
	أخذ مقدمو الخدمة في اعتبارهم آرائي و آمالي بطريقة كافية	
	يتأكد مقدمو الخدمة من فهمي لخطة العلاج بوضوح.	
	احترم مقدمو الخدمة آدميتي .	
	عرفني مقدمو الخدمة على أنفسهم .	
	عاملني مقدمو الخدمة بطريقة رسمية جدا بعيدا عن العلاقات الإنسانية .	
	احترمني مقدمو الخدمة بصورة ممتازة.	
	حياني مقدمو الخدمة عند وصولي .	
	يتميز مقدمو الخدمة بالأدب و الاحترام.	
	أجد مقدمي الخدمة حينما أحتاجهم .	
	يبدي مقدمو الخدمة استعدادا للمساعدة كل الوقت.	
	بشكل عام أنا راضي عن الطريقة التي عاملني بها مقدمو الخدمة .	
	احترم كل مقدمي الخدمة احتياجاتي و أخذوها بعين الاعتبار.	
	شعرت بالتجاهل من قبل مقدمو الخدمة في المركز الصحي	
	أمضى معي مقدمو الخدمة وقت كافي .	
	شعرت بوجود حاجز بيني و بين مقدمو الخدمة.	
	استجاب مقدمو الخدمة لمتطلباتي بسرعة.	
	اعتبر مقدمي الخدمة كأصدقاء.	
	موقع المركز الصحي ملائم .	
	كان من السهل علي الوصول للمركز الصحي .	
	علي الانتظار لمدة طويلة قبل إخراج ملفي .	

	علي الانتظار لمدة طويلة قبل أن أرى الطبيب .	
	الوقت الذي أقضيه مع الطبيب كاف.	
	انتظر وقت طويل قبل أن أستلم علاجي .	
	الأدوية المطلوبة لعلاج حالتي متوفرة كل الوقت.	
	يبادر مقدمو الخدمة إلى الاتصال بي حين أتغيب عن المركز لفترة طويلة تصل إلى ثلاث شهور أو أكثر .	
	هيئة المركز الصحي توفر لي الخصوصية اللازمة.	
	المركز الصحي مزدحم	
	يوجد ضوضاء في المركز الصحي	
	درجة الحرارة في غرفة الفحص ملائمة .	
	غرفة الفحص نظيفة .	
	دورات المياه في العيادة نظيفة	
	توجد مساحات انتظار ملائمة في المركز الصحي .	
	المقاعد ملائمة و مريحة	
	تهوية غرف الفحص في المركز الصحي جيدة.	

إجمالا كيف تقيم مستوى رضاك عن الخدمات الصحية المقدمة لك في هذا المركز الصحي

□ ممتازة □جيدة جداً □ جيدة □ مقبولة □ سيئة

القراءات الثلاث الأخيرة للضغط لمرضى الضغط و مرضى الضغط و السكر

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النتائج الثلاث الأخيرة لفحص لمعدل السكر في الدم بعد ساعتين من الكل

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درجة السيطرة على المرض

□تحت السيطرة □ ضغط □خارج السيطرة □ ضغط

□ سكر □ سكر

□ضغط و سكر □ضغط و سكر

الفترة ما بين الثلاث زيارات الأخيرة

□متابعة منتظمة □متابعة غير منتظمة

أكثر الأشياء التي نالت إعجابك والتي لم تنل إعجابك بالنسبة لخدمات الأمراض المزمنة المقدمة

• أشياء نالت إعجابي	• أشياء لم تنل إعجابي
_____	_____
_____	_____
_____	_____

Annex 6: Factors label and items

Factor name	Questions
General impressions	1-I had a good experience with the NCDs services at this health centre
	7 -If a friend or a relative needs the same service I will recommend this health centre to him
	8-I will continue to receive services in this health centre
	11-Overall I'm satisfied with the way the NCDs services is provided at this health centre
	15-My NCDs services were delivered in appropriate manner
Accessibility	28-I received sufficient information on how to be prepared for the tests
	56-The location of the health centre is convenient
	57-It was easy for me to get to the health centre
Communication and interpersonal relations	36-Health centre staff treated me in a friendly and courteous manner
	37-Health centre staff consistently demonstrated willingness to listen to me
	41-Health centre staff respected me as a person
	44-The standard of respect shown to me by health centre staff was excellent
	45-Health centre staff greeted me properly when I arrived
	46-The health centre staffs are polite and respectful
	49-I'm satisfied with the way the health centre staff treated me in general
	50-My needs were considered and respected by all staff
	51-I felt ignored at the health centre
	52-The health centre staff spent sufficient time with me
	53-I felt that there was a gap between me and the health provider
	55-I view the health centre staff as friends
	60-The time I spend with the doctor is enough
	36-Health centre staff treated me in a friendly and courteous manner

	37-Health centre staff consistently demonstrated willingness to listen to me
	41-Health centre staff respected me as a person
	44-The standard of respect shown to me by health centre staff was excellent
	45-Health centre staff greeted me properly when I arrived
	46-The health centre staffs are polite and respectful
	49-I'm satisfied with the way the health centre staff treated me in general
	50-My needs were considered and respected by all staff
Clinic environment	29 I perceive that privacy/confidentiality for counseling is acceptable
	30 I perceive that privacy/confidentiality for examination is acceptable
	67 The examination room temperature is fine
	68 The examination rooms are clean
	69 The health centre toilets are clean
	70 There are proper waiting areas in the health centre
	71 There are proper comfortable seats
	72 The examination rooms in the health centre are well ventilated
Technical quality	3-I had a confidence in the health centre staff
	12-I was involved in the process of my care
	16-I had doubts about the ability of the health centre staff involved in my care
	18-Provider helped me in reaching a decision about my treatment options
	19-I can easily request change of my medication if I feel that I'm not doing well with the existing medicines
	20-The doctor examines me carefully
	21-The doctor seriously addresses my complaints
	23-I felt that my health condition has improved after attended this

	clinic
	24-I'm satisfied with the frequency of the tests I have
	25-I was given enough information about my condition
	26-I was given enough information about my treatments, including possible alternatives and any associated side effects
	27-I received sufficient information on how frequent I will have my tests
	31-Staff gave me clear explanation about my test results
	35-I have a perception that I received satisfactory answers to my questions
	39-I can ask any medical question without any problem
	40-Provider makes sure that I understood the treatment plan clearly
	42-Health centre staff introduced themselves to me
	48-The health centre staffs are helpful all the time
	54-Health centre staff responded quickly to my requests
	64-Clinic arrangements and preparation provides adequate privacy
Convenience	58-I have to wait for long time before the issue of my file
	59-I have to wait too long to be seen by the doctor
	61-I have to wait for long time before receiving my medication
	65-The Clinic is crowded
	66-The clinic is noisy

Annex 7: Differences in patients' satisfaction by gender

Dep. Var. "Patient satisfaction"	Indep. Var. "Gender"	N	Mean	S.D.	t	Sig
General impressions	Male	145	4.1848	.35752	-.233	.816
	Female	182	4.1945	.38447		
Accessibility	Male	145	3.8759	.68600	.586	.559
	Female	182	3.8333	.62459		
Communication and interpersonal relations	Male	145	3.8525	.48874	1.220	.223
	Female	182	3.7861	.48909		
Clinic environment	Male	145	3.6534	.49295	.592	.554
	Female	182	3.6202	.51352		
Technical quality	Male	145	3.4114	.45142	1.849	.065
	Female	182	3.3198	.43995		
Convenience	Male	145	2.9241	.85247	1.738	.083
	Female	182	2.7571	.87123		
Overall satisfaction	Male	145	3.6344	.37092	1.690	.092
	Female	182	3.5639	.37729		

Annex 8: Differences in patients' satisfaction by age group

Dep. Var. Patients satisfaction	Ind. Variable "Age groups"	Mean	Sum of squares		df	Mean square	F	P-value
General impressions	below 45 years	4.1971	Between Groups	.004	2	.002	.015	.985
	45-60 years	4.1882	Within Groups	45.165	324	.139		
	Over 60 years	4.1888	Total	45.169	326			
Accessibility	below 45 years	3.9275	Between Groups	.878	2	.439	1.034	.357
	45-60 years	3.8600	Within Groups	137.644	324	.425		
	Over 60 years	3.7790	Total	138.523	326			
Communication and interpersonal relations	below 45 years	3.7191	Between Groups	1.084	2	.542	2.282	.104
	45-60 years	3.8179	Within Groups	76.965	324	.238		
	Over 60 years	3.8859	Total	78.049	326			
Clinic environment	below 45 years	3.6196	Between Groups	.030	2	.015	.059	.942
	45-60 years	3.6435	Within Groups	82.781	324	.255		
	Over 60 years	3.6306	Total	82.811	326			
Technical quality	below 45 years	3.4058	Between Groups	.249	2	.124	.621	.538
	45-60 years	3.3601	Within Groups	64.806	324	.200		
	Over 60 years	3.3258	Total	65.055	326			
Convenience	below 45 years	2.6406	Between Groups	3.178	2	1.589	2.135	.120
	45-60 years	2.8817	Within Groups	241.104	324	.744		
	Over 60 years	2.8831	Total	244.282	326			
Overall satisfaction	below 45 years	3.5733	Between Groups	.044	2	.022	.155	.856
	45-60 years	3.6031	Within groups	67.442	330	.204		
	Over 60 years	3.5970	Total	68.059	332			

Annex 9: Differences in patients' satisfaction by presence of complications

Dep. Var. "Patient satisfaction"	Indep. Var. "presence of complications"	N	Mean	S.D.	t	Sig
General impressions	Yes	105	4.1771	.37243	-.436	.663
	No	222	4.1964	.37282		
Accessibility	Yes	105	3.8032	.72161	-.884	.378
	No	222	3.8754	.61650		
Communication and interpersonal relations	Yes	105	3.8549	.47518	1.001	.318
	No	222	3.7970	.49580		
Clinic environment	Yes	105	3.6274	.45731	-.186	.852
	No	222	3.6385	.52560		
Technical quality	Yes	105	3.3229	.43672	-1.045	.297
	No	222	3.3782	.45125		
Convenience	Yes	105	2.7829	.83947	-.694	.488
	No	222	2.8541	.87869		
Overall satisfaction	Yes	105	3.5769	.36812	-.604	.547
	No	222	3.6038	.37953		

Annex10: Differences in patients' satisfaction and value of educational material

Dep. Var. "Patient satisfaction"	Indep. Var. "value of educational material"	N	Mean	S.D.	t	Sig
General impressions	To high extent	102	4.2667	.39635	2.015	.045*
	To some extent	89	4.1663	.28957		
Accessibility	To high extent	102	3.8693	.66857	.380	.704
	To some extent	89	3.8315	.70554		
Communication and interpersonal relations	To high extent	102	3.8673	.53592	.334	.738
	To some extent	89	3.8427	.47090		
Clinic environment	To high extent	102	3.6716	.55371	.595	.552
	To some extent	89	3.6264	.48540		
Technical quality	To high extent	102	3.4701	.45687	.777	.438
	To some extent	89	3.4202	.42605		
Convenience	To high extent	102	2.9255	.89881	-.325	.745
	To some extent	89	2.9685	.92878		
Overall satisfaction	To high extent	102	3.6748	.41740	.711	.478
	To some extent	89	3.6350	.34573		

*statistically significant

Annex 11: Differences in patients' satisfaction by presence/absence of disability

Dep. Var. "Patient satisfaction"	Indep. Var. "presence/absence of disability"	N	Mean	S.D.	t	Sig
General impressions	Present	12	4.1167	.50782	-.697	.486
	Absent	315	4.1930	.36688		
Accessibility	Present	12	3.5278	.70293	-1.762	.079
	Absent	315	3.8646	.64782		
Communication and interpersonal relations	Present	12	3.9038	.49757	.636	.525
	Absent	315	3.8122	.48947		
Clinic environment	Present	12	3.6458	.42917	.076	.939
	Absent	315	3.6345	.50722		
Technical quality	Present	12	3.3833	.32216	.181	.857
	Absent	315	3.3595	.45114		
Convenience	Present	12	2.9667	.80378	.552	.581
	Absent	315	2.8260	.86868		
Overall satisfaction	Present	12	3.6096	.36396	.135	.892
	Absent	315	3.5946	.37653		

Annex 12: Differences in patients' satisfaction by No. of health provider (doctor) seen in the last year

Dep. Var. "Patient satisfaction"	Indep. Var. "No. of doctors seen)"	N	Mean	S.D.	t	Sig
General impressions	≤ 3	239	4.1941	.35899	.314	.754
	> 3	88	4.1795	.40801		
Accessibility	≤ 3	239	3.7559	.64200	-4.531	.001*
	> 3	88	4.1136	.60834		
Communication and interpersonal relations	≤ 3	239	3.8436	.44205	1.495	.137
	> 3	88	3.7395	.59544		
Clinic environment	≤ 3	239	3.6642	.48327	1.737	.083
	> 3	88	3.5554	.55153		
Technical quality	≤ 3	239	3.4027	.41468	2.598	.010*
	> 3	88	3.2455	.50898		
Convenience	≤ 3	239	2.8536	.87744	.769	.442
	> 3	88	2.7705	.83462		
Overall satisfaction	≤ 3	239	3.6219	.33694	1.855	.066
	> 3	88	3.5225	.45893		

* Statistically significant

Annex 13: Differences in patients' satisfaction by No. of health provider (nurse) seen in the last year

Dep. Var. "Patient satisfaction"	Indep. Var. "nurses seen"	N	Mean	S.D.	t	Sig
General impressions	≤ 3	197	4.1970	.35656	.403	.688
	> 3	130	4.1800	.39599		
Accessibility	≤ 3	197	3.7699	.61818	-2.841	.005*
	> 3	130	3.9769	.68349		
Communication and interpersonal relations	≤ 3	197	3.8044	.45697	-.509	.611
	> 3	130	3.8325	.53598		
Clinic environment	≤ 3	197	3.6859	.46129	2.266	.024*
	> 3	130	3.5577	.55557		
Technical quality	≤ 3	197	3.3690	.43036	.430	.668
	> 3	130	3.3473	.47181		
Convenience	≤ 3	197	2.8122	.87753	-.488	.626
	> 3	130	2.8600	.84986		
Overall satisfaction	≤ 3	197	3.5986	.35508	.205	.838
	> 3	130	3.5899	.40596		

* Statistically significant

Annex 14: Differences in patients' satisfaction and access for disabled.

Dep. Var. "Patient satisfaction"	Indep. Var. "access for disabled "	N	Mean	S.D.	t	Sig
General impressions	equipped	7	4.2571	.27603	1.150	.277
	not equipped	5	3.9200	.71554		
Accessibility	equipped	7	3.7143	.35635	.949	.389
	not equipped	5	3.2667	1.01105		
Communication and interpersonal relations	equipped	7	4.0110	.40808	.873	.403
	not equipped	5	3.7538	.61874		
Clinic environment	equipped	7	3.7679	.45887	1.187	.263
	not equipped	5	3.4750	.35795		
Technical quality	equipped	7	3.4571	.28785	.934	.373
	not equipped	5	3.2800	.37182		
Convenience	equipped	7	2.9429	.86959	-.116	.910
	not equipped	5	3.0000	.80000		
Overall satisfaction	equipped	7	3.7037	.27132	.974	.368
	not equipped	5	3.4778	.46544		

Annex 15: Difference in patients' satisfaction and type of disease

Dependent variable "patient satisfaction"	Independent variable "type of disease"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	DM	4.1671	Between Groups	.155	2	.077	.558	.573
	HTN	4.1778	Within Groups	45.014	324	.139		
	DM&HTN	4.2185	Total	45.169	326			
Accessibility	DM	3.8995	Between Groups	.288	2	.144	.337	.714
	HTN	3.8222	Within Groups	138.235	324	.427		
	DM&HTN	3.8571	Total	138.523	326			
Communication and interpersonal relations	DM	3.7408	Between Groups	.841	2	.421	1.765	.173
	HTN	3.8040	Within Groups	77.208	324	.238		
	DM&HTN	3.8746	Total	78.049	326			
Clinic environment	DM	3.6644	Between Groups	.150	2	.075	.293	.746
	HTN	3.6111	Within Groups	82.662	324	.255		
	DM&HTN	3.6439	Total	82.811	326			
Technical quality	DM	3.3507	Between Groups	.272	2	.136	.680	.507
	HTN	3.3330	Within Groups	64.783	324	.200		
	DM&HTN	3.3975	Total	65.055	326			
Convenience	DM	2.7342	Between Groups	1.525	2	.763	1.018	.363
	HTN	2.8119	Within Groups	242.757	324	.749		
	DM&HTN	2.9126	Total	244.282	326			
Overall satisfaction	DM	3.5726	Between Groups	.294	2	.147	1.042	.354
	HTN	3.5724	Within Groups	45.684	324	.141		
	DM&HTN	3.6348	Total	45.978	326			

Annex 16: Differences in patients' satisfaction and No. of times turned back without service

Dep. Var. "Patient satisfaction"	Indep. Var. "No. of times turned back without service"	N	Mean	S.D.	t	Sig
General impressions	1-3 times	153	4.1725	.40527	.161	.872
	>3 times	36	4.1611	.26541		
Accessibility	1-3 times	153	3.8192	.66884	.628	.531
	>3 times	36	3.7407	.69516		
Communication and interpersonal relations	1-3 times	153	3.7657	.49273	.873	.384
	>3 times	36	3.6838	.56280		
Clinic environment	1-3 times	153	3.5588	.48073	.912	.363
	>3 times	36	3.4757	.53936		
Technical quality	1-3 times	153	3.3288	.46671	.522	.602
	>3 times	36	3.2847	.40317		
Convenience	1-3 times	153	2.6497	.77977	-.662	.509
	>3 times	36	2.7444	.74006		
Overall satisfaction	1-3 times	153	3.5403	.37491	.906	.366
	>3 times	36	3.4789	.32349		

Annex 17: Difference in patients' satisfaction and disease duration

Dependent variable "patient satisfaction"	Independent variable "Disease duration"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	< 5 years	4.2085	Between Groups	.139	2	.070	.501	.607
	5-15 years	4.1850	Within Groups	45.030	324	.139		
	>15 years	4.1421	Total	45.169	326			
Accessibility	< 5 years	3.8709	Between Groups	.163	2	.081	.191	.827
	5-15 years	3.8481	Within Groups	138.360	324	.427		
	>15 years	3.7982	Total	138.523	326			
Communication and interpersonal relations	< 5 years	3.8158	Between Groups	.058	2	.029	.120	.887
	5-15 years	3.8064	Within Groups	77.991	324	.241		
	>15 years	3.8502	Total	78.049	326			
Clinic environment	< 5 years	3.5810	Between Groups	.786	2	.393	1.553	.213
	5-15 years	3.6675	Within Groups	82.025	324	.253		
	>15 years	3.7105	Total	82.811	326			
Technical quality	< 5 years	3.3676	Between Groups	.023	2	.011	.056	.945
	5-15 years	3.3585	Within Groups	65.032	324	.201		
	>15 years	3.3408	Total	65.055	326			
Convenience	< 5 years	2.8549	Between Groups	.182	2	.091	.121	.886
	5-15 years	2.8054	Within Groups	244.100	324	.753		
	>15 years	2.8421	Total	244.282	326			
Overall satisfaction	< 5 years	3.5981	Between Groups	.005	2	.002	.016	.984
	5-15 years	3.5911	Within Groups	45.973	324	.142		
	>15 years	3.5999	Total	45.978	326			

Annex 18: Difference in patients' satisfaction and type of complications

Dependent variable "patient satisfaction"	Independent variable "type of complications"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	Cardiovascular	4.2053	Between Groups	.051	3	.017	.120	.948
	Neurological	4.1520	Within Groups	14.374	101	.142		
	Cerebrovascular	4.1714	Total	14.425	104			
	Others	4.1619						
Accessibility	Cardiovascular	3.7719	Between Groups	1.500	3	.500	.959	.415
	Neurological	3.8533	Within Groups	52.655	101	.521		
	Cerebrovascular	3.6190	Total	54.154	104			
	Others	3.9841						
Communication and interpersonal relations	Cardiovascular	3.8057	Between Groups	.496	3	.165	.726	.539
	Neurological	3.7969	Within Groups	22.987	101	.228		
	Cerebrovascular	3.8974	Total	23.483	104			
	Others	3.9707						
Clinic environment	Cardiovascular	3.4605	Between Groups	2.252	3	.751	3.888	.011*
	Neurological	3.6350	Within Groups	19.498	101	.193		
	Cerebrovascular	3.6905	Total	21.749	104			
	Others	3.8571						
Technical quality	Cardiovascular	3.3684	Between Groups	.599	3	.200	1.048	.375
	Neurological	3.1880	Within Groups	19.237	101	.190		
	Cerebrovascular	3.3667	Total	19.835	104			
	Others	3.3571						
convenience	Cardiovascular	2.5158	Between Groups	5.460	3	1.820	2.710	.049*
	Neurological	2.8480	Within Groups	67.829	101	.672		
	Cerebrovascular	2.8381	Total	73.289	104			
	Others	3.1333						
Overall satisfaction	Cardiovascular	3.5375	Between Groups	.453	3	.151	1.119	.345
	Neurological	3.5148	Within Groups	13.640	101	.135		
	Cerebrovascular	3.6067	Total	14.093	104			
	Others	3.6922						

*Statistically significant

Annex 19: Difference in patients' satisfaction by duration of complications

Dependent variable "patient satisfaction"	Independent variable "duration of complications"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	<5 years	4.2258	Between Groups	.640	2	.320	2.368	.099
	6-10 years	4.1515	Within Groups	13.785	102	.135		
	> 10 years	3.9600	Total	14.425	104			
Accessibility	<5 years	3.8387	Between Groups	2.474	2	1.237	2.442	.092
	6-10 years	3.8788	Within Groups	51.680	102	.507		
	> 10 years	3.3333	Total	54.154	104			
Communication and interpersonal relations	<5 years	3.9020	Between Groups	.335	2	.168	.738	.480
	6-10 years	3.7879	Within Groups	23.148	102	.227		
	> 10 years	3.7846	Total	23.483	104			
Clinic environment	<5 years	3.6855	Between Groups	2.933	2	1.466	7.949	.001*
	6-10 years	3.6742	Within Groups	18.817	102	.184		
	> 10 years	3.1125	Total	21.749	104			
Technical quality	<5 years	3.3290	Between Groups	.037	2	.018	.095	.909
	6-10 years	3.3288	Within Groups	19.798	102	.194		
	> 10 years	3.2650	Total	19.835	104			
Convenience	<5 years	2.9871	Between Groups	7.254	2	3.627	5.602	.005*
	6-10 years	2.5697	Within Groups	66.035	102	.647		
	> 10 years	2.2200	Total	73.289	104			
Overall satisfaction	<5 years	3.6263	Between Groups	.656	2	.328	2.491	.088
	6-10 years	3.5505	Within Groups	13.437	102	.132		
	> 10 years	3.3574	Total	14.093	104			

*statistically significant

Annex 20: Differences in patients' satisfaction and evaluation of UNRWA's NCDs services in comparison with other service providers

Dependent variable "patient satisfaction"	Independent variable "comparison of UNRWA with other provider"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	Very satisfying	4.3200	Between Groups	.438	3	.146	1.131	.342
	Satisfying	4.1720	Within Groups	9.429	73	.129		
	Fair	4.0600	Total	9.867	76			
	Not satisfying	4.2000						
Accessibility	Very satisfying	3.8222	Between Groups	2.235	3	.745	1.108	.352
	Satisfying	3.7000	Within Groups	49.093	73	.673		
	Fair	3.2667	Total	51.328	76			
	Not satisfying	4.0000						
Communication and interpersonal relations	Very satisfying	4.0769	Between Groups	1.141	3	.380	1.688	.177
	Satisfying	3.8662	Within Groups	16.448	73	.225		
	Fair	3.9077	Total	17.589	76			
	Not satisfying	3.3462						
Clinic environment	Very satisfying	3.7333	Between Groups	.620	3	.207	.856	.468
	Satisfying	3.5075	Within Groups	17.643	73	.242		
	Fair	3.5375	Total	18.263	76			
	Not satisfying	3.4375						
Technical quality	Very satisfying	3.6900	Between Groups	1.090	3	.363	2.227	.092
	Satisfying	3.4530	Within Groups	11.914	73	.163		
	Fair	3.4300	Total	13.004	76			
	Not satisfying	3.0500						
convenience	Very satisfying	3.1200	Between Groups	4.710	3	1.570	2.100	.108
	Satisfying	2.7000	Within Groups	54.568	73	.748		
	Fair	3.0600	Total	59.278	76			
	Not satisfying	1.8000						
Overall satisfaction	Very satisfying	3.8543	Between Groups	1.050	3	.350	2.900	.041*
	Satisfying	3.6059	Within Groups	8.808	73	.121		
	Fair	3.6019	Total	9.858	76			
	Not satisfying	3.2593						

*Statistically significant

Annex 21: Differences in patients' satisfaction by reason for medication purchase

Dep. Var. "Patient satisfaction"	Indep. Var. "reason for medication purchase "	N	Mean	S.D.	t	Sig
General impressions	N.A	62	4.1387	.37911	1.533	.129
	Others (e.g. insufficient)	15	3.9600	.50256		
Accessibility	N.A	62	3.7742	.73619	.685	.495
	Others (e.g. insufficient)	15	3.6222	.90735		
Communication and interpersonal relations	N.A	62	3.8077	.54762	.116	.908
	Others (e.g. insufficient)	15	3.7897	.49976		
Clinic environment	N.A	62	3.4173	.50709	-.104	.918
	Others (e.g. insufficient)	15	3.4333	.65101		
Technical quality	N.A	62	3.4145	.50945	-.388	.699
	Others (e.g. insufficient)	15	3.4700	.43744		
Convenience	N.A	62	2.6710	.85246	-.361	.719
	Others (e.g. insufficient)	15	2.7600	.87896		
Overall satisfaction	N.A	62	3.5576	.43048	-.053	.958
	Others (e.g. insufficient)	15	3.5642	.42781		

Annex 22: Differences in patients' satisfaction and reason for turning back without service in the last year

Dep. Var. "Patient satisfaction"	Indep. Var. "reason for turning back without service in the last year"	N	Mean	S.D.	t	Sig
General impressions	lack of drugs	180	4.1833	.37394	2.105	.037*
	Others	9	3.9111	.47022		
Accessibility	lack of drugs	180	3.7926	.66401	-1.064	.289
	Others	9	4.0370	.84071		
Communication and interpersonal relations	lack of drugs	180	3.7577	.49901	.921	.358
	Others	9	3.5983	.65133		
Clinic environment	lack of drugs	180	3.5396	.49676	-.425	.672
	Others	9	3.6111	.40236		
Technical quality	lack of drugs	180	3.3192	.45389	-.162	.871
	Others	9	3.3444	.49652		
Convenience	lack of drugs	180	2.6489	.75742	-1.506	.134
	Others	9	3.0444	.98883		
Overall satisfaction	lack of drugs	180	3.5282	.36069	-.071	.944
	Others	9	3.5370	.48077		

*Statistically significant

Annex 23: Differences in patients' satisfaction and nature of work

Dependent variable "patient satisfaction"	Independent variable "nature of work"	Mean	Sum of Squares		df	Mean Square	F	P value
General impressions	Employee	4.2408	Between Groups	.066	2	.033	.218	.805
	Skilled worker	4.1429	Within Groups	9.736	64	.152		
	Unskilled worker	4.2000	Total	9.802	66			
Accessibility	Employee	4.0000	Between Groups	1.024	2	.512	1.043	.358
	Skilled worker	4.3333	Within Groups	31.414	64	.491		
	Unskilled worker	3.8485	Total	32.438	66			
Communication and interpersonal relations	Employee	3.9074	Between Groups	.498	2	.249	1.034	.361
	Skilled worker	4.0440	Within Groups	15.398	64	.241		
	Unskilled worker	3.7203	Total	15.895	66			
Clinic environment	Employee	3.5179	Between Groups	.802	2	.401	1.227	.300
	Skilled worker	3.7857	Within Groups	20.929	64	.327		
	Unskilled worker	3.7500	Total	21.731	66			
Technical quality	Employee	3.5459	Between Groups	.508	2	.254	1.088	.343
	Skilled worker	3.4071	Within Groups	14.928	64	.233		
	Unskilled worker	3.3227	Total	15.436	66			
convenience	Employee	2.8571	Between Groups	2.387	2	1.193	1.458	.240
	Skilled worker	3.4571	Within Groups	52.399	64	.819		
	Unskilled worker	3.0727	Total	54.786	66			
Overall satisfaction	Employee	3.6909	Between Groups	.124	2	.062	.345	.710
	Skilled worker	3.7725	Within Groups	11.484	64	.179		
	Unskilled worker	3.6061	Total	11.607	66			

ملخص الدراسة

عنوان الدراسة : رضا المرضى عن خدمات الأمراض المزمنة المقدمة من خلال المراكز الصحية التابعة لوكالة الغوث في محافظات غزة.

إعداد: زهير الخطيب

إشراف: د. بسام أبو حمد

الهدف من الدراسة

إن الشعب الفلسطيني كباقي شعوب المنطقة يمر بمرحلة تحول من الإصابة من الإمراض المعدية إلى الأمراض الغير معدية وانه حسب تقرير دائرة الصحة التابعة لدائرة الغوث فان معدل الإصابة بأمراض السكر والضغط في ازدياد بين اللاجئين الفلسطينين.

إن الهدف العام من هذه الدراسة هو قياس مستوى رضا المرضى المصابين بالأمراض المزمنة بالخدمات المقدمة لهم من خلال المراكز الصحية التابعة لوكالة الغوث التابعة لمحافظات غزة من اجل توفير المعلومات التي يمكن إن تساهم في تحسين هذه الخدمات والتقليل من معدل الإعاقة والوفيات الناتجة عن هذه الأمراض.

منهجية الدراسة:

إن هذه الدراسة هي وصفية تحليلية نفذت في مراكز صحية تابعة لوكالة الغوث في محافظات غزة وقد بلغ حجم العينة 400 مريض للمشاركة في الدراسة , شارك منهم فعلياً 327 مريضاً باعتماد الطريقة الطبقية النسبية وتمت مقابلتهم مباشرة في داخل المراكز الصحية وذلك بتعبئة استبانة تم إعدادها بواسطة الباحث وكان معدل الاستجابة 81.8%.

نتائج الدراسة

استخلصت الدراسة 6 عوامل شكلت الإطار العام لرضا المرضى عن خدمات الأمراض المزمنة المقدمة لهم في وكالة الغوث وأظهرت النتائج مستوى رضا متوسط لدى المرضى والذي تراوح ما بين 56.6% إلى 83.8% كان أعلاها الرضا العام عن الخدمات وأدناها هو الملائمة في داخل المراكز الصحية.

كذلك أظهرت الدراسة أن المرضى الغير متزوجين والذين تم تزويدهم بمواد تثقيفية صحية والمرضى الذين يتعاملون مع مزود خدمة صحية معين داخل المركز الصحي(طبيب\ ممرض) وكذلك المرضى الذين لا يشترون علاجات إضافية غير المزودة لهم يتمتعون بمستوى رضا أعلى من المرضى أقرنائهم.

كذلك أظهرت الدراسة أن المرضى الحاصلين على مستوى تعليم عالي والمواظبين بالتردد على المراكز الصحية أظهروا مستوى رضا أعلى من الآخرين.

لم تظهر النتائج أي فروق ذات دلالة إحصائية في مستوى الرضا بين المرضى من حيث الجنس والعمر وطبيعة العمل وكذلك وجود إعاقات ناتجة عن المرض.

التوصيات

قدمت الدراسة مجموعة من التوصيات الأولية التي يمكن إن تحسن مستوى الرضا وبالتالي مستوى الخدمات المقدمة لمرضى الأمراض المزمنة في المراكز الصحية التابعة لوكالة الغوث والتي يمكن لصانعي القرار استخدامها لتحسين الخدمات المقدمة لمرضى الأمراض المزمنة كذلك أوصت الدراسة بالتركيز على المرضى الذين لديهم مستوى رضا قليل عن الخدمات المقدمة وذلك عن طريق رفع مستوى مقدمي الخدمات الصحية وتعزيز المهارات والمعرفة والتطوير العلمي من خلال التدريب العملي المستمر لمقدمي الخدمة والاهتمام بالمتابعة ونظام المتابعة.