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**Evaluation of Type 2 Diabetic Services at UNRWA
Health Centers-Gaza Governorate**

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**Evaluation of Type 2 Diabetic Services at UNRWA
Health Centers - Gaza Governorate**

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Thesis Approval

Evaluation of Type 2 Diabetic Services at UNRWA Health Centers-Gaza Governorate.


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Dedication

I dedicate this dissertation to the memory of my late mother, here spirit inspired me throughout conducting this study

To my extraordinary father and my beloved wife "Mona" for being the greatest source of inspiration, unlimited support, and encouragement

To my brothers and sisters for giving me the faith and passion to complete this study.

To the light of my eyes... my kids

I dedicate this research for all of them...

Osama Abed Qader Hammad

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 or any of its parts has not been submitted for higher degree to any other university or institution.

Signed:

Osama Abed Qader Hammad.

Date: -----/-----/-----

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Yours faithfully

Osama Abed Qader Hammad

Abstract

Non-communicable diseases are among the main causes of mortality and morbidity globally. One of the main non-communicable illnesses is type 2 diabetes mellitus. In the Gaza Strip, the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) is one of the main health providers for non-communicable diseases, including type 2 diabetes mellitus. This study intended to evaluate the provided services to type 2 diabetes mellitus clients at UNRWA health centers in the Gaza Strip. The study aimed to propose recommendations to improve the quality of the provided services and thus improving the overall wellbeing of clients. The study design was a mixed methods study; it involved both quantitative and qualitative data. The quantitative data was collected from beneficiaries who utilized type 2 diabetes mellitus health services at UNRWA health centers within the study settings(6 primary health centers randomly selected). In total, 408 patients participated in the quantitative study. The qualitative data was collected through 4 focus group discussions with type 2 diabetes mellitus health providers (primary health care doctors and nurses). Analysis of quantitative data was conducted using the SPSS program, the analysis involved different types of statistical tests. For qualitative data, an open coding thematic analysis method was used.

Results showed that 99% of study participants received their type 2 diabetes mellitus health care services exclusively from UNRWA, 72.1% had another co-morbidity, mainly hypertension. Participants had good type 2 diabetes mellitus knowledge with a score of 76.87%. About 89% had easy access to UNRWA type 2 diabetes mellitus health services. UNRWA type 2 diabetes mellitus services met the expectation of 95.8% of participants. The main barriers for UNRWA type 2 diabetes mellitus services from participants perspective were long waiting time (77.4%) and crowding of health center (40.2%). A total of 74% of the study participants did not receive any kind of type 2 diabetes mellitus self-care education, the main type 2 diabetes mellitus health education was done nurses (85.8%). About 95% of the study participants conducted regular follow up visits to UNRWA's health centers, and the main causes of missing follow up visits were the patient busy (65%), followed by the incapability (physical) to move (30%). For scanning screening, 62.5% of participants did their annual eye screening, 73.8 % of participants did their foot screening and 93.6 % of participants did their annual laboratory analysis. Study participants perceived that UNRWA type 2 diabetes mellitus services were of quality by 87.43%, and fell satisfaction with 84.07 %. Overall perceived quality was a statistically significant associated with participants place, gender, and smoking status. According to HbA1c, the controlled participant's percentage ($\geq 7\%$) was 23.8% and the rest were uncontrolled(76.2%). The level of HbA1c was statistically significantly associated with participants gender and smoking status.

The present study concluded that despite the good perceived quality, good type 2 diabetes mellitus complications screenings and patients type 2 diabetes mellitus knowledge, the glycemic control by HbA1c is poor. This could be explained by limited focused on diabetic self-care, insufficient health education, limited communication between health provider and patients, and very short contact time. More studies are needed to evaluate the determinants of controlling status. UNRWA needs to increase the contact time, improve the quality of provided services by strengthening the monitoring and supervision.

Table of Contents

Dedication.....	i
Acknowledgment.....	ii
Abstract.....	iii
Table of Contents	iv
List of Tables	vii
List of Figure	ix
List of Annexes.....	x
List of Abbreviations.....	xi
Chapter 1: Introduction.....	1
1.1 Background.....	1
1.2 Problem Statement:.....	2
1.3 Justification and Significance of the Study	3
1.4 Aim of the Study.....	3
1.5 Objectives	3
1.6 Research Questions.....	4
1.7 Study Context	4
1.7.1 Demographic and Geographic Context	4
1.7.2 Socioeconomic context.....	5
1.7.3 The Gaza Strip (GS)	5
1.7.4 Healthcare System	6
1.7.5 UNRWA	6
1.8 Operational Definitions	7
Chapter 2: Conceptual Framework and Literature Review	9
2.1 Conceptual Framework.....	9
2.2 Literature review.....	13
2.2.1 Types of Evaluation.....	13
2.2.2 Diabetes Mellitus (DM).....	13
Chapter 3: Methodology	35
3.1 Study Design.....	35
3.2 Study Settings	35
3.3 Duration of the study	36

3.4	Study Population and Sample Size	36
3.4.1	Quantitative part	36
3.4.2	Qualitative part	36
3.4.3	Abstraction sheet	37
3.5	Eligibility Criteria—quantitative part.....	37
3.5.1	Inclusion	37
3.5.2	Exclusion	37
3.6	Eligibility Criteria—qualitative part.....	37
3.6.1	Inclusion	37
3.6.2	Exclusion	37
3.7	Instruments/tools: Quantitative study	37
3.8	Instruments/tools: Qualitative study	38
3.9	Scientific rigor: quantitative part	38
3.9.1	Reliability	38
3.9.2	Validity	39
3.10	Scientific rigor: qualitative part	40
3.11	Data Collection	40
3.12	Data entry and data analysis	40
3.12.1	Quantitative part	40
3.12.2	Qualitative part	41
3.13	Ethical and managerial consideration	41
3.14	Limitation of the study.....	41
Chapter 4:	Findings and Discussion	42
4.1	Introduction.....	42
4.2	Client factors.....	42
4.2.1	Demographic characteristics of study participants	42
4.2.2	Distribution of the study participants according to their medical history	46
4.2.3	Distribution of the study participants according to their knowledge about diabetes and the practice of diabetes self-care	49
4.3	Health care system factors	53
4.3.1	Accessibility of diabetes health services	53
4.3.2	Existence of Technical Instructions (TI)	57
4.3.3	Appointment system	57
4.4	Provider factors.....	58

4.4.1	Knowledge, skills and experience of health providers	58
4.4.2	Diabetic health providers training	59
4.4.3	Compliance with diabetic management protocols	59
4.4.4	Clients contact time with providers	60
4.5	DM2 Services	61
4.5.1	DM2 self-care education.....	61
4.5.2	Diabetes follow up care	64
4.5.3	Distribution of the study participants according to their Perception about Diabetes complications screening within UNRWA clinics-last year.....	65
4.6	Outcomes of Type 2 diabetes services.....	70
4.6.1	Control status as assessed by HbA1c level.....	70
4.6.2	Utilization of diabetes complication screening.....	75
4.6.3	Perceived quality and satisfaction	76
Chapter 5: Conclusion and Recommendations		97
5.1	Conclusion	97
5.2	Recommendations.....	101
5.3	Recommendation for further research	101
References:		102
Annexes.....		130
Abstract in Arabic		162

List of Tables

Table (3.1): Cronbach alpha coefficient for perceived quality and satisfaction domains ...	39
Table (4.1): Distribution of the study participants according to their demographic characteristics	43
Table (4.2): Distribution of the study participants according to their medical history	48
Table (4.3): Distribution of the study participants according to their level of knowledge on DM.....	50
Table (4.4): Distribution of the study participants according to their practice of diabetic self-care.....	52
Table (4.5): Distribution of the study participants according to their Perceived Accessibility	55
Table (4.6): Distribution of study participants according to Diabetes self-care education .	63
Table (4.7): Distribution of the study participants according to diabetes complications screening within UNRWA clinics (last year)	68
Table (4.8): The relation between participants control status as assessed by HbA1c level and different variables	73
Table (4.9): Relation between HBA1C and diabetic patients knowledge, perceived quality domains, satisfaction.....	75
Table (4.10): Distribution of the study participants according to their perceived quality and satisfaction	77
Table (4.11): Distribution of the study participants according to their perceived tangibles	78
Table (4.12): Distribution of the study participants according to their perceived empathy	79
Table (4.13): Distribution of the study participants according to their perceived reliability	80
Table (4.14): Distribution of the study participants according to their perceived responsiveness	81
Table (4.15): Distribution of the study participants according to their perceived assurance	82
Table (4.16): Distribution of participants according to their perceived satisfaction	83

Table (4.17): Distribution of the study participants according to other satisfaction questions	85
Table (4.18): The relation between perceived quality, satisfaction and governorates	89
Table (4.19): Health center and perceived quality domains	93
Table (4.20): Study participants gender influence on perceived quality domains	95
Table (4.21): Study participants smoking status influence on perceived quality domains .	96

List of Figures

Figure (2.1): Conceptual framework	9
Figure (4.1): Distribution of study participants according to governorates	42
Figure (4.2): Distribution of the study participants according to their employment status	44
Figure (4.3): Distribution of participants according to their income Smoking	45
Figure (4.4): Distribution of the study participants according to smoking status	46
Figure (4.5): Barriers to diabetic service utilization.....	56
Figure (4.6): Diabetic patients waiting and contact time per minute	60

List of Annexes

Annex (1): Helsinki Committee research approval	130
Annex (2): Time framework.....	131
Annex (3): Health centers and their number of diabetes clients (2016).....	132
Annex (4): Sample calculation:	133
Annex (5): Focus groups interviews questions and consent form.....	157
Annex (6): Experts and professional consulted:.....	161

List of Abbreviations

AADE	American Association of Diabetes Educators
ADA	American Diabetes Association
ANOVA	Analysis of Variance
CDC	Center for Disease Control and Prevention
DM	Diabetes Mellitus
DM 1:	Diabetes Mellitus type 1
DM2:	Diabetes Mellitus type 2
ESRD	End Stage Renal Disease
GS	Gaza Strip
IDDM	Insulin-Dependent Diabetes Mellitus
IDF	International Diabetes Federation
MOH	Ministry of Health
NIDDK	National Institute for Diabetes and digestive and kidney Disease
NIDDM	Non -Insulin-Dependent Diabetes Mellitus
oPt	Occupied Palestinian Territories
PCBS	Palestinian Central Bureau of Statistics
SMBG	Self-Monitoring of Blood Glucose
SPSS	Statistical Package for the Social Sciences
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WB	West Bank
WHO	World Health Organization