

**Deanship of Graduate Studies**

**Al-Quds University**



**Patient Satisfaction toward the Pharmaceutical Care  
Services provided at the Ministry of Health Primary  
Healthcare Pharmacies in Bethlehem Governorate**

**Shireen Jaber Ibrahim Alhoubani**

**M.Sc. Thesis**

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provided at the Ministry of Health Primary Healthcare**

**Pharmacies in Bethlehem Governorate**

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**Al-Quds University**  
**Deanship of Graduate Studies**  
**Policies and Health Management**



**Thesis Approval**

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at the Ministry of Health Primary Healthcare Pharmacies in Bethlehem  
Governorate**




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Jerusalem - Palestine

1444 – 2022

## **Dedication**

**I dedicate my thesis to:**

The pure spirit of my mother “Heyam”

My beloved father who always gives me

the biggest support in every step of my life

The “soul out of my soul” who kept my spirits up and surrounded me

by her endless love “my daughter Heyam”

Shireen Jaber Ibrahim Alhoubani

### **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 study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

**Signed:**

A rectangular box containing a handwritten signature in blue ink. The signature is stylized and appears to be 'Shireen Jaber Ibrahim Alhoubani'.

Shireen Jaber Ibrahim Alhoubani

**Date: 11-12-2022**

### **Acknowledgments**

First and foremost, I am deeply indebted to offer my sincerest gratitude to my supervisor Dr. Maha AL-Nubani, for her supervision, guidance, suggestion, advise, encouragement, and continuous assistance throughout this study; I also would like to express deep thanks to all the academic & administrative staff of the School of Public Health at Al-Quds University for their kindness, encouragement and support.

Shireen Jaber Ibrahim Alhoubani

## **Abstract**

**Background:** Patient satisfaction is a humanitarian testimony resulting from practical experience and an integral component of the quality of healthcare aimed to measure the quality of provided health services.

**Justification:** the sensitivity of the health sector whereas the Palestinian health institutions especially the governmental institutions still struggling to exist despite the technical and political challenges.

**General goal:** to assess patient satisfaction toward the pharmaceutical services provided by the Ministry of Health primary healthcare pharmacies in Bethlehem Governorate.

**Study methodology:** A cross-sectional study was conducted over two months, using a self-developed questionnaire, consisting of 5 points Likert scale, the study population was the patients of twenty pharmacies of the ministry of health primary healthcare pharmacies.

**Results:** The response rate was 100%, the female was 64% and the male was 36%, and the cut-off point was 3. The overall patient satisfaction toward pharmaceutical services was satisfied with  $M= 3.10$ ,  $SD= .651$ , the highest satisfaction was shown toward prescription services infrastructure with  $M= 3.73$ ,  $SD= .702$  and the pharmacists' role, performance and characteristics  $M= 3.34$ ,  $SD= .772$ . The lowest satisfaction was shown toward time in the counseling room with  $M= 2.57$ ,  $SD=1.176$  and time in the waiting room with  $M= 2.85$ ,  $SD= 1.095$ . There are significant differences between geographic location in terms of pharmacist characteristics, performance and role ( $p= 0.001$ ), prescription Monitoring & screening ( $p=0,001$ ), time in the counseling room ( $p=0,003$ ), and dispensing ( $p=0,012$ ).

Patients were satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.24$ ,  $SD=.686$ ) more than north ( $M=2.95$ ,  $SD=.590$ ) in terms of overall patients satisfaction ( $p<0.001$ ), however patients satisfied with pharmaceutical services located in the south of Bethlehem city ( $M=3.18$ ,  $SD=.656$ ) more than the north ( $M=2.95$ ,  $SD=.590$ ) in terms of overall patients' satisfaction ( $p=0.016$ ). The study indicated there are significant differences between the place of residence ( $p<0.001$ ), occupation ( $p=0.020$ ) and health insurance ( $p=0.047$ ). Pearson correlation indicated a significant positive small correlation between overall patient satisfaction and the number of beneficiaries from the services provided by the primary health pharmacies to family ( $r=0.177$ ,  $p<0.001$ ). Furthermore, a significant negative small correlation between overall patient satisfaction and the far of the pharmacy from their place of residence ( $r=-0.141$ ,  $p=0.005$ ).

**Conclusion and recommendations:** The results showed patient satisfaction toward the pharmaceutical care services provided and suggested to provide primary health pharmacies with large quantities of medications an infrastructure development including the waiting & counseling rooms and raising consumers' awareness about their rights to get optimal health care and any health institution should evaluate patient satisfaction continuously.

**Key words:** patient satisfaction, pharmaceutical care services, primary healthcare, privacy, and quality of health services.

رضا المرضى عن خدمات الرعاية الصيدلانية المقدمة في صيدليات وزارة الصحة للرعاية الصحية

الأولية في محافظة بيت لحم

إعداد: شيرين جابر الحوباني

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## الملخص

**خلفية الدراسة:** رضا المريض هو شهادة إنسانية ناتجة عن الخبرة العملية وعنصر لا يتجزأ من جودة الرعاية الصحية التي تهدف إلى قياس جودة الخدمات الصحية المقدمة.

**المبرر:** حساسية القطاع الصحي حيث أن المؤسسات الصحية الفلسطينية خاصة المؤسسات الحكومية منها ما زالت تكافح من أجل الاستمرار في تقديم خدماتها على الرغم من التحديات الفنية والسياسية.

**الهدف العام:** تقييم رضا المريض حول الخدمات الصيدلانية التي تقدمها صيدليات وزارة الصحة للرعاية الصحية الأولية في محافظة بيت لحم.

**منهجية الدراسة:** أجريت دراسة مقطعية على مدى شهرين، باستخدام استبيان تم تطويره ذاتياً ، يحتوي على مقياس ليكرت الخماسي ، وكان مجتمع الدراسة عبارة عن مرضى عشرين صيدلية من صيدليات وزارة الصحة للرعاية الصحية الأولية.

**النتائج:** معدل الاستجابة كان 100%، نسبة الإناث كانت 64% ونسبة الذكور 36%، القيمة المحددة

والفاصلة هي 3، كان هناك رضا عام من قبل المرضى تجاه الخدمات الصيدلانية  $M = 3.10$  ،  $SD =$

651. ، تم إظهار أعلى درجات الرضا تجاه البنية التحتية لخدمات الوصفات الطبية  $M = 3.73$  ،  $SD =$

702. أما دور الصيدلة وأدائهم وخصائصهم  $M = 3.34$  ،  $SD = .772$ . أما أقل رضا فكان تجاه الوقت

في غرفة المشورة  $M = 2.57$  ،  $SD = 1.176$ ، الوقت في غرفة الانتظار  $M = 2.85$  ،  $SD = 1.095$ . كما

أظهرت النتائج فروق ذات دلالة إحصائية بين الموقع الجغرافي من حيث خصائص الصيدلي وأدائه ودوره

( $p=0.001$ ) ، أما مراقبة وفحص الصفات ( $p=0.001$ )، والوقت في غرفة الاستشارة ( $p=0.003$ ) ،  
وصرف الأدوية ( $p=0.012$ ) .

كان للخدمات الصيدلانية المقدمة في وسط مدينة بيت لحم رضا (  $M = 3.24$  ،  $SD = 0.686$  ) أكثر من  
تلك التي تقدم في الشمال (  $M = 2.95$  ،  $SD = .590$  ) من حيث الرضا العام للمرضى ( $p = <0.001$ ) ،  
ومع ذلك المرضى الراضون عن الخدمات الصيدلانية الواقعة في جنوب مدينة بيت لحم (  $M = 3.18$  ،  $SD = 0.656$  ) أكثر من الشمال (  $M = 2.95$  ،  $SD = .590$  ) من حيث الرضا العام للمرضى ( $p = 0.016$ ).  
كما وأشارت الدراسة إلى وجود فروق ذات دلالة إحصائية بين مكان إقامة المريض ( $p = <0.001$ ) ،  
والوظيفة ( $p = 0.020$ ) والتأمين الصحي ( $p = 0.047$ ). أشارت علاقة بيرسون إلى وجود علاقة إيجابية  
بين الرضا العام للمريض وعدد المستفيدين من الخدمات التي تقدمها صيدليات الصحة الأولية للأسرة (  $r = 0.177$  ،  $p = <0.001$  ) ، علاوة على ذلك ، علاقة سلبية بين الرضا العام للمريض وبعُد الصيدلية عن  
مكان إقامتهم (  $r = -0.141$  ،  $p = 0.005$  ).

**الخلاصة والتوصيات:** أظهرت النتائج رضا المرضى تجاه خدمات الرعاية الصيدلانية المقدمة واقتُرحت تطوير  
للبنية التحتية في صيدليات المستوى الصحي الأولي بما في ذلك غرف الانتظار والمشورة ورفع وعي  
المستهلكين حول حقوقهم في الحصول على الرعاية الصحية المثلى وتوفير كميات أكبر لأنواع الأدوية التي  
يحتاجها المرضى باستمرار ، كما ويجب على أي مؤسسة صحية تقييم رضا المريض بشكل مستمر .  
**الكلمات المفتاحية:** رضا المريض، خدمات الرعاية الصيدلانية، الرعاية الصحية الأولية ،الخصوصية،جودة  
الخدمات الصحية.

## Table of contents

Declaration .....	I
Acknowledgments .....	II
Abstract .....	III
الملخص .....	V
List of abbreviations.....	XIII
<b>Chapter one.....</b>	<b>1</b>
Introduction .....	1
1.1 background.....	1
1.2 problem statement .....	3
1.3 justification .....	4
1.4 the aim of the study .....	6
1.4.1 study objectives .....	6
1.5 context of the study.....	6
1.5.1 the reality of phcs in palestine.....	7
1.5.2 phc in bethlehem governorate .....	9
1.6 operational definition .....	10
1.7 definition of terms .....	12
1.8 research questions .....	12
1.9 feasibility of the study .....	13
1.10 summery .....	13
<b>Chapter Two .....</b>	<b>14</b>

Literature review .....	14
2.1 introduction .....	14
2.2 pharmaceutical care services .....	14
2.3 prescription services infrastructure .....	15
2.4 pharmacist characteristics and role .....	16
2.5 waiting & counseling (room and time) .....	18
2.6 prescription monitoring and screening .....	20
2.7 dispensing medication and giving instruction .....	22
2.8 accessibility .....	22
<b>Chapter Three .....</b>	<b>25</b>
Methodology .....	25
3.1 introduction .....	25
3.2 study settings and targeted population.....	25
3.3 study design .....	26
3.4 sampling process & calculation .....	26
3.5 inclusion criteria.....	27
3.6 exclusion criteria .....	28
3.7 data collection & procedure .....	28
3.8 study instrument.....	29
3.9 piloting study .....	30
3.9.1 validity.....	30
3.9.2 reliability .....	30
3.10 data analysis \ statistical analysis.....	31
3.11 ethical consideration .....	32

3.12 conceptual framework .....	33
3.13 definition of variables.....	35
3.13.1 socio- demographic .....	35
3.12.2 the eighth dimensions in section two include: .....	35
<b>Chapter Four.....</b>	<b>37</b>
Results .....	37
<b>Chapter Five.....</b>	<b>52</b>
Discussion, conclusion and recommendations .....	52
Discussion .....	52
How good is the pharmaceutical care services provided at the primary health levels in bethlehem? (objective1+2) .....	52
Differences between demographic characteristics, in terms of patient satisfaction toward the pharmaceutical care services at phcs pharmacies: .....	57
Differences between patients district in terms of patients' satisfaction toward the pharmaceutical services provided at phcs pharmacies: .....	59
Factors associated with patient's satisfaction toward pharmaceutical care services at the primary healthcare pharmacies:.....	62
Conclusion .....	63
Recommendation.....	66
References .....	68
Appendixes.....	74

## List of tables

<b>Title</b>	<b>Page No.</b>
Table (3.1): Distribution of study population according to the MOHPHC's pharmacies	27
Table (3-2): Shows reliability coefficients of the patient's satisfaction level and its domains	31
Table (3-3): shows tests of Normality	32
Table (4-1): Socio-demographic characteristics of the patients (n=400)	38
Table (4-2): Items related to the pharmaceutical services (n=400)	39
Table (4-3): Mean score of patients' satisfaction and for each domains toward pharmaceutical services (n=400)	40
Table (4-4): Mean score for each item regarding general pharmaceutical services among patients (n= 400)	41
Table (4-5): Mean score for each item regarding prescription services infrastructure among patients (n= 400)	41
Table (4-6): Mean score for each item regarding pharmacist characteristics, role and performance among patients (n= 400)	42
Table (4-7): Mean score for each item regarding the time in waiting room among patients (n= 400)	43
Table (4-8): Mean score for each item regarding prescription monitoring and screening among patients (n= 400)	44
Table (4-9): Mean score for each item regarding time in the counseling room among patients (n= 400)	45
Table (4-10): Mean score for each item regarding dispensing medication and giving instructions among patients (n= 400)	45
Table (4-11): Mean score for each item regarding the accessibility to pharmaceutical services and pharmacy among patients (n= 400)	46
Table (4-12): Differences between geographic location of the primary healthcare pharmacies in terms of each domain of patient's satisfaction toward pharmaceutical services (n=400)	48
Table (4-13): Differences between socio-demographic characteristics of patients in terms of patient's satisfaction toward	50
Table (4-14): Pearson correlation between variables (n=400)	51

## List of figures

Title	Page No.
Figure 1: Conceptual Framework by patient satisfaction dimension	34

## List of appendices

<b>Appendix</b>	<b>Page No.</b>
<b>Appendix 1:</b> The location of PHC centers in Bethlehem and pharmacy working days per week.	73
<b>Appendix 2:</b> Distribution of the Ministry of Health centers in Bethlehem city and the number of beneficiaries	74
<b>Appendix 3:</b> Ministry of Health permission	75
<b>Appendix 4:</b> Study questionnaire	76
<b>Appendix 5:</b> Ethical Research Committee	86

## **List of abbreviations**

<b>NHI</b>	National Health Insurance
<b>FIP</b>	International Federation of Pharmaceuticals
<b>MOH</b>	Ministry of Health
<b>PHC</b>	Primary Healthcare
<b>PS</b>	Patient Satisfaction
<b>UNWRA</b>	United Nations Relief and Works Agency
<b>WHO</b>	World Health Organization
<b>MMS</b>	Military Medical Services
<b>NGOS</b>	Non-Governmental Organizations
<b>CPH</b>	Community Pharmacies\ Pharmacists
<b>HIS</b>	Health Information System
<b>ICH</b>	Indonesian's Health Coverage
<b>PHC-MOH</b>	Ministry of Health Primary Healthcare
<b>JUMC</b>	Jimma Universty Medical Center
<b>PHC-PSQ</b>	Public Health Clinic Patient Satisfaction Questionnaire
<b>SD</b>	Standard Deviation
<b>AM</b>	Ante Meridiem
<b>PM</b>	Post Meridiem

# **Chapter One**

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## **Introduction**

### **1.1 Background**

Patient satisfaction (PS) is a humanitarian testimony resulting from practical experience that shows the quality of health services provided in the various patient care services and programs (Kristina et al., 2021). PS is one of the integral components of the quality of healthcare (Shraim, 2019) by implementing various communication skills, suitability, and giving information to rationalize the consumption of medicines (Can BAŞER, 2020). The pharmacists are fully responsible to provide many services that have the role of promoting rational drug use such as; providing proper information to patients about the prescribed drug, the appropriate indication of the drug according to the disease also considering suitability, efficacy, safety, and appropriate dosage form and duration of the treatment as well as patient adherence to treatment (Rutter, 2015)

Undoubtedly pharmacists work collaboratively with all participants in the treatment process “medical personnel and patients” in unison to improve clinical health outcomes and reduce harm to patients (Ayalew et al., 2017). Certainly, the consequences will be the optimal use of resources and the sustainability of the quality of health services with improving the quality of life for patients as mentioned in many previous studies (Fahmi Khudair & Raza, 2013a ; El-Sharif et al., 2017).

In this regard, the International Pharmaceutical Federation (FIP) clarified that pharmaceutical care services are “responsible for the provision of pharmacotherapy for the

purpose of achieving definite outcomes that improve or maintain a patient's quality of life” (Shraim, 2019).

At the beginning of the fifties of the last century; as a first step, there have been many developments in the pharmacy profession as a result of the migration of medicines from the pharmacy laboratory to the pharmaceutical factory (Wiedenmayer, 2006) & (Embrey, 2012).

Furthermore these services expanded beyond supplying or dispensing medicines and became patient-oriented, which means that the patient is the top priority through these services with a set standard of measuring (Embrey, 2012). According to good pharmacy practice, all patients have the equity to access the services and it means that the services are suitable for the patient's needs moreover the accessibility for the services is easy without time or place restrictions (Sears, 2016).

Recently, pharmaceutical care services can be classified into six dimensions; general services, prescription service infrastructure, prescription screening and waiting time, dispensing, drug information, and finally, patient counseling and monitoring (Larasanty et al., 2019).

Patients who are satisfied with the comprehensive care services provided by their pharmacist are more likely to create a strong socio-psychological and communicative relationship with their provider, and less likely to change health provider to another (Can BAŞER, 2020 ; Radad et al., 2016).

Obviously, Patient satisfaction or dissatisfaction is based on “the subjective understanding the individual has on the care received”, along with, the relationship with the healthcare provider besides the health services infrastructure (medicines & equipment), and their representative in the health treatment process (Ismail et al., 2020).

Evaluation is a political, intentional, and technical process and one of the management tools in public and private institutions, besides a social and ethical responsibility, to improve the quality of health services provided (Shraim, 2019).

Importantly, continuous evaluation of health programs and policies in the public health is essential, to utilize the resources more effectively and to ensure a healthier society as possible (Abu-Hamad et al., 2016). Therefore, the effects of evaluation of health policies improve the performance of services when appreciating the association between the factors with health services (process, materials, structure, and human recourses) and health status and the population needs (Al-Balasi, 2015) ultimately, patient satisfaction is considered a golden goal that must be achieved by health services (Ismail et al., 2020) moreover, should be researched to merge improvements in the health system because the satisfied patient will enjoy a better quality of life by adhering to the prescribed medication, providing important health information to the health provider, and getting continuity health services. The consequences lead to improving the general health status (Osman Mohamed et al., 2022).

## **1.2 Problem statement**

In Palestine, only (Shraim, 2019) conducted a study to assess PS towards the pharmaceutical care services provided in three governmental hospitals, this means that no such study has been conducted to assess patient satisfaction in Palestinian towards the pharmaceutical care services at primary health care centers, and therefore data on this topic are not available. This kind of study is highly needed since it focuses on individual primary healthcare level (PHC).

The pharmaceutical services provided in any primary healthcare pharmacy suffer from shortages due to the lack of communication between the patient and the pharmacists, these shortages exceed the communication to the shortages of drugs and health personnel

(Shraim, 2019). Therefore, medicines are dispensed according to the current availability of the medicine and in most cases, patients do not inform about the changes in the dosage form or the new brand name or dose ... etc., even if the medicine is effective or has a role in the treatment; this often results in taking a double dose of the same medication by the patient. In addition, the congestion could affect the waiting time, availability and quality of the services provided which will negate privacy (Shraim, 2019). Working hours are around 6-8 hours is there following up on the patient status after dispensing the medicines. Many patients who rely on dispensing medications from private pharmacies at the primary health level suffer from shortages in the availability of medications which forces the patients to buy them from community pharmacies; it costs them, especially those who need multiple monthly medicines like chronic diseases patients and the wounded of the intifada patients... etc.

### **1.3 Justification of the study**

The followers of the reality of health service institutions in Palestine especially the governmental health organizations find that it still struggling to exist, despite the various difficulties in providing health services and regardless of the geographic locations (Al-balasi, 2015 ). Some of these difficulties are related to material and technical capabilities, and others are related to administrative or political variables and other difficulties that affect the level of quality of health services (Radad et al., 2016) which negatively affects a large segment of the beneficiaries. Nevertheless, they always aspire to progress and develop in the ways of providing services, influence customers, and measure their level of satisfaction with the services provided (Aziz et al., 2018).

The importance and the sensitivity of the health sector and the role which the primary medical clinics play in providing many basic services in a period of work that does not exceed six to seven hours daily; besides the nature of our Palestinian society (that is

characterized by dynamic and changing) in terms of the increase in the population, accidents, diseases, and the consequent increase in expenditures, high unemployment, and low salaries, forcing the patient to receive his treatment in primary health care clinics (Al-balasi, 2015). In the last twenty years, satisfying patients has become a key task for all healthcare providers, subsequently, essential sources to provide information to identify the gaps for putting a piece of clear evidence to develop an action plan for improving the quality of health care in every health organization (Minarikova et al., 2016).

For this reason, an assessment of patient satisfaction at various health institutions (pharmacies, clinics, and hospitals) could be a database for health indicators for the pharmacists and the decision makers to review the pharmaceutical services provided to their patients. Moreover, will in the long term, hike patient satisfaction and improve the health status to be a benchmark for pharmaceutical policy nationwide. Because these indicators have become very vital in many countries to ensure higher compliance and monitor the advancement and quality improvement of provided services (Aziz et al., 2018).

It is well known that Palestinian pharmaceutical services are provided generally through a mix of public (governmental), voluntary non-governmental, and private for-profit pharmacies. This means that we have more than one medicine dispensing system that is affected by several factors which differ according to the patient's culture, working environment, drug dispensing mechanism, etc., which affects the patient's safety and satisfaction with the quality of services provided. Most hospitals still lack programs, to improve patient safety while few were in the process of designing and implementing safety initiatives (Hamdan & Saleem, 2013).

## **1.4 The general goal of the Study**

The study aimed to assess patient satisfaction towards the pharmaceutical services provided by pharmacies at the primary health level in Bethlehem governorate, to achieve this; the following measurable “general and specific” objectives were set:

### **1.4.1 Specific study objectives**

- 1- To assess patients’ satisfaction toward the pharmaceutical care services provided at the primary health levels in Bethlehem.
- 2- To assess patients’ satisfaction toward the dimensions of pharmaceutical services provided at the primary health levels in Bethlehem.
- 3- To assess the differences between patients geographic location in terms of patients’ satisfaction toward the pharmaceutical services provided at the primary health levels in Bethlehem.
- 4- To assess the differences between the demographic characteristics in terms of patient satisfaction towards the pharmaceutical care services at primary healthcare pharmacies.
- 5- To determine the satisfaction factors associated with pharmaceutical care services at the primary healthcare pharmacies with selected variables including age, the number of beneficiaries, income, level of education and far of the pharmacy.

## **1.5 Context of the Study**

The study was conducted at the pharmacies of the primary health centers in Bethlehem. Twenty PHC pharmacies belong to the Ministry of Health (MOH) (see appendix 1), in order to ensure similarity among the participants when doing the comparison. The targeted population was aged between 18-80 years.

The researcher chose twenty primary healthcare pharmacies affiliated with the Ministry of Health in Bethlehem governorate from levels one to four and the extent of patient satisfaction with these services because this kind of study should be studied repeatedly for the smooth functioning of the health care system to ensure the improvement of health services outcome continuously (Almaznai et al., 2019).

### **1.5.1 PHCs in Palestine**

PHC is one of the major components of the Palestinian healthcare system; it deals with psychological, social, and physiological aspects of health. Its essence is to provide possible care and the health needs of the citizen throughout his life and is not limited to a group of specific diseases. Therefore the MOH paid great attention to developing it because PHC provided essential services for a large segment of people, particularly for women, children, the elderly, and other vulnerable groups; wherefore MOH PHC centers covered 63.4% of total centers and provided services to all Palestinian (MOH, 2019).

The existence of the Palestinian healthcare system was in 1994 when the Israeli Civil Administration transferred the responsibilities to the Palestinian Authority, this step was the birth of the Palestinian ministry of health. Palestinian Authority became responsible for the regulation, supervision, licensing, controlling and monitoring of all health care services in its institutions, moreover, the private sector (for-profit) and many nongovernmental organizations (NGOs) which are considered second-hand providers of healthcare in Palestine provided its services like the Palestinian Medical Relief Society (PMRS), and of course, besides the United Nations Relief and Works Agency (UNRWA) which started its work in 1948 (MOH, 2019).

According to the MOH yearly report in 2020, the total number of PHCs in Palestine is 749 and the number MOH of primary health care centers increased from 203 centers at the end of 1994 to 475 centers in 2020 with an increase of 142% (MOH, 2020). Furthermore, the

distribution of the number and percentage of primary health care centers by service-providing **sector** in Palestine in 2020 is as followed; MOH PHC's are 475 (64.2 %), UNRWA PHC's are 65 (8.7%) Nongovernmental (NGOS) PHC's are 192 (25.6%), Military Medical Services (MMS) is 17 (2.2 %) (MOH, 2021)

PHC was classified in the Ministry of Health policy from level one to level four (MOH, 2021), which includes ensuring that people receive comprehensive healthcare, ranging from counseling and preventive to treatment services.

- **Level one : Provides**

- I. Preventive services: mother and child health care, immunization and health education.
- II. Curative services: First aid

- **Level two : Provides**

- I. Preventive services: Mother and child health care, immunization and health education.
- II. Curative services: General Practice GP medical care, Laboratory (in some clinics).

- **Level three: Provides**

- I. Preventive services: Mother and child health care, immunization, family planning and health education.
- II. Curative services: GP medical care, dental health care, medical specialist Laboratory and some specialized clinics

- **Level four : Provides**

- I. Preventive services: Mother and child health care, immunization, family planning, and health education

- II. Curative services: GP medical care, medical specialist care and dental health care, Gynecology and obstetrics, laboratory, radiology, emergency services (EMS) and other specialized clinic (MOH, 2021).

Working hours in the PHC's pharmacies, in the third and fourth levels throughout the weekly working days of the clinic but in the first and second levels, depending on the weekly working days of the general physician, the total numbers of pharmacists who work in primary health care are 0,070 per 10,000 populations in Palestine (MOH, 2021).

### **1.5.2 PHC in Bethlehem Governorate**

Bethlehem Governorate is one of eleven Palestinian Governorates in the West Bank region; it is located in the middle to the south of West Bank, away 9.0 kilometers from Jerusalem which is equivalent to 20 minutes. Its population is 234,802 people; additionally, there are three camps in Bethlehem Dheisha camp (9510 people), Azza' camp (1650 people), and Aida camp (3050 people) (PCBS, 2021). All of them are ensured and largely dependent on receiving their healthcare services at primary healthcare centers. While the total number of beneficiaries of the provided medical & pharmaceutical services was around 126755 patients (MOH, 2019), This creates major problems in every unit in these facilities such as overcrowding, the long waiting time to receive service, and the shortages of some services such as medicine. The location of PHC centers in Bethlehem and pharmacy working days per week (see appendix 1) "for the location of PHC pharmacies in Bethlehem city and pharmacies working days per week".

Therefore, this study will highlight the pharmaceutical care services provided by Upon the (see appendix 1), it is noticeable that there is a good distribution for the PHC centers to reach the most significant number of beneficiaries with its services, moreover a discrepancy and variation in the working hours of these centers and their pharmacies per week, the researcher classified these PHCs into three dimensions (North, Middle, and

South) according to the district in which every PHC was located to determine which district had more patient satisfaction than others. To give a lens of sight on the current situation due to these differences

## **1.6 Operational definition**

### **Patient satisfaction**

Patient satisfaction is a humanitarian testimony resulting from practical experience that shows the quality of health care services.

### **Quality of health services**

Quality of services is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes; it is based on evidence-based professional knowledge and is critical for achieving universal health coverage (WHO, 2020).

### **General pharmaceutical services**

A set of practices, in which the practitioners take all the responsibility for patients' drug treatment needs and are responsible for that obligation and emphasize it a primary responsibility of a pharmacist (Larasanty et al., 2019)

### **Prescription service infrastructure**

In this study, prescription services infrastructure is defined if the prescription includes written information related to the patient (the name of the patient, the therapeutic unit's name, dispensing medication, and the doctor's signature)

### **Pharmacist characteristics, role, and performance**

This study emphasized the role\ performance that the pharmacist plays in caring for the pharmaceutical care services in primary healthcare and the impact of this role\ performance on patient satisfaction and health outcome in general.

### **Waiting time & room**

Waiting time is the time that the patient waits to receive pharmaceutical care services; from the time of issuing the prescription to the time of dispensing it in a comfortable and suitable room (Sadi et al., 2019).

### **Prescription screening & monitoring**

In this study, prescription screening is defined if the pharmacist looking for the availability of the prescription information to prevent any potential problems that may cause complications or harm to the patient and monitoring is to follow up on the patient's status through the previously dispensed drug or after the current dispensing. like: (Larasanty et al., 2019; Liga et al., 2020).

### **Counseling time & room**

Counseling time is the time in which the pharmacist gives the patient the appropriate advice that the patient asks about in a suitable and private room to ensure privacy

### **Dispensing & drug information**

Dispensing refers to the practice of giving and preparing the medicine to the "named patient" which was written in prescription, it guarantees the good interpretation to the wishing of the prescriber of the medicine and the good labeling and preparation to use it by the patient. (Larasanty et al., 2019; El-Sharif et al., 2017).

Drug information is the way of conveying the information related to the drug to the patient by labeling, face-to-face communication or phone like: smoking, drug storage, sport...Etc.) (Can BAŞER, 2020)

## **1.7 Definition of terms**

### **Pharmaceutical care services**

A set of practices, the practitioners take all the responsibility for patients' drug treatment needs and are responsible for that obligation and emphasize it as a primary responsibility of a pharmacist (Al Zaidan et al., 2022).

### **Privacy**

Defined as a complex task that requires a careful analysis of what actually has to be kept private, but in healthcare, means what you tell your healthcare provider, what they write down about you, any medication you take, and all other personal information is kept private (Kuo et al., 2016).

### **Health services**

A set of services that provide medical treatment and care to the public or to a particular group (University of Essex, 2021).

## **1.8 Research Questions**

1. How is the pharmaceutical care services provided at the primary health levels in Bethlehem?
2. Is there any significant relationship between patient satisfaction and the dimensions of pharmaceutical provided at the primary health levels in Bethlehem?
3. Are there any significant relationships between the demographic characteristics, in terms of patient satisfaction toward the pharmaceutical care services at primary healthcare pharmacies?

4. Is there significant relationship between the satisfactions factors associated with pharmaceutical care services at the primary healthcare pharmacies?

## **1.9 Feasibility of the study**

The researcher is from Bethlehem city so; the researcher has a particular interest and inducement to conduct this study on a personal, academic and professional level. Ethically, this research and its results will not form any harm to anyone, be on a patient or medical personnel psychologically and physically. Furthermore, the epidemiological status, distance and environment of any PHC pharmacy have not been an obstacle to completing this study.

## **1.10 Summery**

This study was directed to assess the satisfaction of Palestinian patients toward the pharmaceutical care services provided at primary healthcare pharmacies, so this study is unparalleled in this period of time that there have been no studies related to patient satisfaction, especially toward the pharmaceutical care services at the primary health care pharmacies in Palestine. Moreover, the epidemiological status which affects the quality of pharmaceutical services, particularly the goal of Palestinian MOH is to provide a large segment of patients with the essential services with high standards to improve health status.

## **Chapter Two**

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### **Literature Review**

#### **2.1 Introduction**

This section presents some previous studies connected to the study topic. It shows local, Arabic and foreign studies in order to compare the current study and the mentioned related ones according to these eight dimensions:

#### **2.2 Pharmaceutical Care Services**

- **Local**

Radad and colleagues in 2016 conducted a study entitled Evaluation of Patients' Satisfaction towards the primary health care service at the three health care providers (Israelis, Palestinians and international organizations) in the Old City of Jerusalem, Palestine. The study aimed to assess patient satisfaction in order to evaluate and monitor the quality of primary health care services. The researchers used quantitative and qualitative methods to achieve the aim of this study, (questionnaires and interviews). Finally, the study revealed a huge dissatisfaction of the Arab community in Jerusalem city towards some health care services, such as emergency services, x-ray services, provision of orthopedic diseases services and working hours of health care centers. The result showed four factors that have effects on patients' satisfaction in the Old City of Jerusalem which includes hierarchically, time and access, the physical environment in the health care

centers, cost and health insurance, and comprehensiveness and quality of the health. Therefore, the researcher recommended serious modifications to improve the health services sector in the Old City of Jerusalem.

- **Regional**

A study carried out by El-Sharif and colleagues in 2017, titled Assessment of patient's satisfaction with pharmaceutical care services in community pharmacies in the United Arab Emirates, aimed to assess some aspects of pharmaceutical services provided by the community pharmacist (CPH) that achieves patient's satisfaction and to evaluate consumer's attitudes toward the services provided. The result was the response rate was (93.8%) for females rather than males, where (80%) of respondents were young ages with no medical background, (52.8%) visited the pharmacy to dispense prescriptions, while (50.5%) of them dispense the prescriptions instantly. As (31.7%) of participants visited the pharmacy to buy items, about (38.1%) were agreed with the availability of a counseling room that respects privacy. (77.1%) were satisfied with the pharmacists' role and performance when described as (experienced," "trustworthy," and "confident) the scores of satisfaction were (27.7%, 22.9%, and 67.9%) respectively. Finally, (74.1%) of participants agreed with the polite way the pharmacists deal with them, 43.7% agreed that the drugs were labeled with full information and 24.5% agreed that the pharmacists provided information about the drug storage form. The researcher recommended more practice for the pharmacist to provide more advantages to the patients, and the patient should be aware of what to receive and expect from the (CPH).

### **2.3 Prescription services infrastructure**

Unfortunately, there is no local or Arabic study covering this dimension despite its importance in protecting patients from harm and pharmacist from medical error. The only **international** study that touched on prescription services infrastructure was an Indonesian

conducted to determine the perception and measure the satisfaction of patients toward the pharmaceutical services provided in primary & secondary health level facilities by Indonesia's health coverage system (IHC). A closed-ended questionnaire was distributed to each outpatient to give his perception of the six dimensions of services provided by pharmacists. The gap between the patient's expectations and the patient's perceptions was calculated to measure (PS) by the SERVQUAL model. 12 health facilities were designated the IHC by the government and had a suitable number of practicing pharmacists, 602 patients participated, in addition to the levels of patients' expectation toward the pharmaceutical services provided at the primary level ranged from high (3.39) to very high (3.54), while the expectations levels toward secondary- level ranged from low (2.04) to very high (3.75). The result was a lower measurement of patient satisfaction according to the indicators" the higher expectations from the patients toward the pharmaceutical services provided and the actual services they had". The study recommended that pharmacists should develop pharmaceutical services in the primary & secondary health levels, to improve drug information, reduce waiting time, and ensure patient consultation which would increase patient satisfaction with the pharmaceutical services (El-Sharif et al., 2017).

## **2.4 Pharmacist Characteristics and Role**

- **International**

The aim of an Ethiopian study was to evaluate patients' satisfaction with the service provided in the healthcare system, which has been globally recognized as the measure of healthcare service quality, entitled Patients Satisfaction with pharmaceutical care and associated factors in southwestern Ethiopia conducted by (Bekele, 2021) emphasized the importance on the transition from dispensing and compounding medications to patient-oriented pharmaceutical care services. The cross-sectional study, used an interview and

questionnaire to collect the data from 234 patients admitted to Medical wards in Jimma University Medical Center (JUMC), the total population was 600, 5% was the margin of error, 95% was the confidence interval and the response rate was 50%. The study revealed that more than 56% of patients were satisfied with the pharmaceutical services provided, 30% of problems related to drug therapy were reported, and the most relevant problem was 11.4% for non-adherence and the least reported was 0.9% for the low dose and adverse effects. The study extracted that patient satisfaction towards the pharmaceutical services was low due to many factors like lack of specific clinical pharmacists, the length of hospital stay, previous history of admission and the number of medications taken within the day.

Multidisciplinary approaches were adopted in the Malaysian health system (Ismail et al., 2020) allowing the pharmacists to work in a unified way with other medical personnel and the movement from traditional dispensing services to patient-centered pharmaceutical care services; titled factors associated with patient satisfaction with pharmacy services among outpatients attending public health clinics; aimed to evaluate patient satisfaction towards pharmacy services and its associated factors. A cross-sectional with a public health clinic patient satisfaction questionnaire (PHC-PSQ) designated consisted of three domains (administrative competency, technical competency and suitability of location), 22 items with 69% of total variation were explained and Cronbach Alpha for total items was 0.96. The total mean score for PS was 7.56 (SD 1.32). The result PS was relatively high, and elderly and higher education were associated with lower patient satisfaction. In general, the factors age, self-perceived health status, education, frequency of visits and general knowledge of pharmacists were significantly associated with PS.

- **Regional**

A cross-sectional study was conducted in Khartoum State to assess patient satisfaction towards the pharmaceutical benefit package provided by a health insurance corporation (Osman Mohamed et al., 2022) using a structured questionnaire based on 5 point-Likert scale. The population was 22084 from 47 pharmacies; the sample was 378 calculated by Solvin's equation.

The findings were 47 the mean age, the frequency for male and female respondents was (49.3% and 50.7% respectively), and the mean of PS was 62.2% ( $3.11 \pm 0.68$ ), most respondents satisfied with the performance and the way that the pharmacist dealt with them ( $3.7, \pm 0.778$ ), while the lowest PS reported for the availability of pharmaceutical benefits package ( $2.06, \pm 1.17$ ), besides the average dispensing time 5.87 minutes ( $P= 0.002$ ) and the actual dispensing medication and labeled medicines (67% and 58% respectively). Furthermore, the highest scores were reported for patients' knowledge 96.6% and patients' ability to pay 65%.

## **2.5 Waiting & counseling (Room and Time)**

- **Local**

In a cross-sectional study carried out in Nablus (Shraim, 2019) to measure patients' satisfaction with pharmaceutical services in Nablus City Hospitals, the questionnaire consisted of items of four main influenced factors, the level of PS with the pharmaceutical services, PS towards the waiting time, the participants' demographic aspects and the availability of medications. The total population was all the patients from the three hospitals of Nablus, through a convenient sample 90 participants filled the questionnaire.

The study concluded that the response rate was 100%, with the participants of the female patients higher than the participants of males (58.9% vs. 41.15%). 30% of the age ranged from 30 to 39 years. 59% of the participants were married. 44% of the participants were

secondary-level school and 58.9% were unemployed, also the family income was 2000\$. The majority of participants were living in the village 42.2%.

According to working time between AM and PM, there were statistically significant differences in patients' satisfaction ( $p= 0.009$ ). Patients satisfied with the waiting time to receive pharmaceutical services 81.1%. 70% of patients were unsatisfied with the availability of medicines within the last visit due to the lack of medications; whereas 97, 8% of patients had no problems with the medications which have the same color and shape. (64,8%) was the overall patients' satisfaction with the pharmaceutical services at hospitals.

Finally, the study recommended more continuous training for pharmacists to improve pharmaceutical services and raise the patient's awareness of these services from their health personnel.

- **Regional**

Long waiting time leads to poor patient satisfaction with pharmacy services. Improving patient waiting time was a study conducted in the United Arab Emirates at a pharmacy of a public hospital aimed to improve the waiting time by quality improvement project conducted via a multidisciplinary team evaluated the problem, optimizing the usage of health information system (HIS) and electronic prescribing when the patient visits any clinic, the physician fills an electronic prescription then sends it to the pharmacy to prepare it before the patient reached to collect it. The intervention reduced the waiting time from 21.5 minutes to 4 minutes, and 82% of patients were satisfied with this experience (Sadi et al., 2019).

- **International**

An Indonesian cross-sectional study (Syachroni et al., 2021) aimed to evaluate physician and pharmacy services quality in the out-patient units at private hospitals providing the

National Health Insurance (NHI). To collect the data, a questionnaire was distributed to 300 patients and their companions in ten units in the private hospitals to reflex patients' perceptions of the services, waiting time, the length of consultation and also by monitoring dispensed; then analyzed statistically using Mann-Whitney and Chi-square test.

The results showed significant differences in “counseling time and dispensing medication” between two groups of patients based on two types of insurance belonging to (NHI) than non-NHI insurance and revealed that the pharmacist's consultation time was more than 5 minutes (OR=8.12; 95%CI=2.13-30.95) between groups and the average waiting time was  $22.4 \pm 21.01$  min, in the group of patients insured with NHI waited 1.8 times longer than the group of patients insured with non-NHI ( $p=0.002$ ), and 32, 7% of medicines are probably prepared.

Finally, the study recommended the importance of allocation of time between physicians' and pharmacists' services to ensure the quality of treating NHI patients and imposing a label standardization policy could lead to high-quality services and patient safety.

“Patient waiting and consultation time in a primary healthcare clinic” is a study conducted in Gombak District within four weeks of working; a mix of data was collected from family medicine specialists, medical officers for non-communicable disease, and acute walk-in patients. The purpose of this study is to assess patient waiting & consulting time in a primary care clinic to formulate strategies for improvement. Sample all the patients who attended the clinics during the period of the study excluded the patients with critical status who need more time, aggressive and the patient who came to take frequent medications. The registration for the arrival time was done by the queue management system (Azraii et al., 2017).

## **2.6 Prescription Monitoring and Screening**

- **Regional**

A descriptive- exploratory cross- sectional study was carried out to assess community pharmacy services provided in the United Arab Emirates (Alhomoud et al., 2016). Focused on patient-centered care and outcomes-oriented practice; In fact, community pharmacists have integrated into the treatment process for communication, monitoring and providing medication advice, and became the most dominant agenda in public health in their proactive services, as well as, (smoking cessation and vaccinations). As a result of improving the quality of healthcare, minimizing the overall costs of healthcare, workload and waiting time; the instrument used to collect the data was an online questionnaire and completed by a total of 415 respondents, the mean age was 35 years (Range 18 to 68 years old (SD = 6), (Male=221 and Female=194)

The highest PS was for the labeling and packaging services (n= 3.52) the cut of point was (3), the lowest PS was for the explanation for the side effects and adverse reactions (n= 2.59) plus for counseling and encouraging patients to raise questions related to the medications (n=2.84). Further results, dissatisfaction with the pharmacy services correlated with the increase in age (p=0.001) and patients with low educational level dissatisfaction with the way of communication for providing services (p=0.003).

The study suggested reforming the health system and introducing unique structure strategies to improve the quality of medication and follow the extension of community pharmacists' role in meeting the patients' demands.

- **International**

Peter and colleagues in 2017 conducted a study entitled Assessment of patient satisfaction with pharmaceutical services in community pharmacies in Bayelsa State South of Nigeria. The pharmacy services transformed from traditional medication dispensing to more expanding, managing and proactive clinical activities, such as screening prescriptions, monitoring, dispensing, labeling with clerking patients on drugs, counseling, and stocking

medications. The sample size was 300 participants who answered a questionnaire. Therefore, the results concluded that (60%) of the patient reported information about adverse reactions and sides effects, 59% of patients reported the information on what to do when the symptoms of adverse reactions occur were provided, and 60 % reported that the information about drug-food interaction for current dispensed medications not provided, the information related to drug-drug interaction was reported 54%, 70.5% reported that the instruction to follow up when needed was provided and the information on how to store the medication was provided.

## **2.7 Dispensing Medication and Giving Instruction**

- **International**

The Quality of the dispensary was a cross-sectional conducted in five Brazilian geopolitical regions using in-person interviews, the total sample of 8,803 patients; concluded that 58.4% of patients were satisfied with the overall pharmaceutical services provided, 78.7% of patients reported that they received adequate information and how to use the medicines, 94.8% informed that information was clear and understandable. 90% reported that the services respected their interpersonal aspects, and 93.1% reported that the information was provided in a polite way (Soeiro et al., 2017). The studies Associations were tested using Pearson's Chi-square test with socio-demographic and health variables, and multiple logistic regression analyses were carried out. Also waiting time to receive the medications scored a satisfactory degree of 95%, the higher satisfaction was reported in the units' long 'opening' working hours 85.7%, 65% regarding the availability of medication and the quality of medicines was 87%.

## **2.8 Accessibility**

- **Regional**

Healthcare settings are a broad array of health services or specialized places where the health services are provided, these settings are considered as specific locations or services that might be the focal point of providing multiple or specific services.

Pharmaceutical services are an essential component of the healthcare system and define performance indicators for pharmaceutical services and provide guidance for improving Qatari pharmaceutical services (Fahmi Khudair & Raza, 2013)

Measuring patients' satisfaction with pharmaceutical services at a public hospital in Qatar was a study conducted to determine the impact of pharmacy services on patient satisfaction, and the factors related to these services' performance at Hamad General Hospital. The data was collected by a constructed questionnaire with seven dimensions of 22 items that focused on; pharmacist communication skills; staff empathy and attitude; supply; promptness; location; patient education and participant demographic aspects. The casualty between the five factors was tested along with their impact on patient satisfaction. Only 220 questionnaires were completed form from 400, 180 were declined because 89 not being willing to participate, 14 had poor sight, 35 "too long questionnaire" and 42 had no time; the response rate was 55%.

The findings; the study found statistical evidence that patient satisfaction is positively affected by pharmacy location, waiting room, service promptness, medication counseling and pharmacist attitude. Several socio-demographic characteristics have a different statistical effect on satisfaction, in particular: gender; social status; age; health status; race and educational level. However, the supply of medications did not affect patient satisfaction.

- **International**

Nowadays an anonymous study was conducted in community pharmacies (CPH) in Pakistan using a cross-sectional method, to assess patient satisfaction and to determine the

needs of patients besides the available current standards of pharmacies. This kind of study can identify the areas of improvement in CPH. The collected data was 1088 questionnaires from 588 CPH, analyzed by one-way ANOVA and Likert scale. The results showed the patient's dissatisfaction with the current services provided at the CPH. The response rate was 80%, the mean age for patients was 35.2 years and the overall mean for patient satisfaction was scored 2.78, patients satisfied with pharmacies working hours and met their needs were scored 4.16, and the current availability of the medicine scored 3.19, and the storage of medicines was scored 3.66. Whereas many patients decelerated the quality of medicines was moderate 3.41, the instruction was written clearly, and the patients were very satisfied 3.35. Nevertheless, the patients' dissatisfaction with parking facilities scored 1.65 and 50% of patients were dissatisfied with waiting time.

In addition, the counseling person's knowledge was scored 2.28; the staff was not interested in patient recovery 2.24. Finally, no significant difference was found in the level of satisfaction with respect to the characteristics of the participants (Aziz et al., 2018).

## **Chapter Three**

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### **Methodology**

#### **3.1 Introduction**

This chapter covered a detailed description of the study's methodology and procedures that the researcher followed while implementing the study in terms of the introduction, the study settings and the targeted population, determining the design of the study, and describing the sample process and calculation used in this study. A full description of the tool used to collect the data, selecting criteria, pilot sample and method of data analysis. Also the procedures for verifying the validity and reliability of the study, and presented ethical considerations related to this study; in addition, addressed the conceptual framework for this study based on the literature review and definition of the variables.

#### **3.2 Study Settings and Targeted Population**

This study was conducted in all the MOH governmental PHCs' pharmacies in Bethlehem; the total number was 29 governmental PHCs' pharmacies enrolled but the actual existing centers\ pharmacies are only 20 centers\ pharmacies and nine centers have been closed (see appendix 2), This data was collected from Planning and Statistics department in Bethlehem Health Directorate (central clinic).

These pharmacies are providing services to insured Bethlehem residents, except infectious diseases drugs are free for all. The table shows that the total population of the MOH-PHC pharmacies is (122218) patients.

The targeted population was all patients who were actually beneficiaries and dispensed the medicines from governmental PHCs' pharmacies in Bethlehem and their ages ranged from 18- 80 years.

### **3.3 Study Design**

A Cross-sectional study was conducted in the period between (15 January and-15 March/2022) to assess patient satisfaction with the pharmaceutical care services provided at the (MOH-PHC) pharmacies in Bethlehem Governorate.

### **3.4 Sampling process & Calculation**

The sampling process was done by taking all the MOH-PHCs' pharmacies in Bethlehem which were twenty. As for the method of selecting patients, the researcher chose the "convenience sample" after a full description of the study and the questionnaire and signing a consent form.

The Slovin's Formula was used to calculate the required sample size as follows;

$n = \frac{N}{1 + NE^2}$ , where  $n$ = number of samples;  $N$ = total population (122218);  $e$  = margin of error (5%), confidence interval of 95%. The final sample size was 400 patients from 20 MOH-PHCs' pharmacies.

More details are shown in table (3-1).

**Table (3-1): Distribution of study population according to the  
MOHPHC's pharmacies**

	<b>MOH PHC Pharmacy</b>	<b>Number of beneficiaries</b>	<b>Percentages of sample size from each center</b>	<b>Final sample size from each center</b>
1-	Beit Jala city	4157	3.40%	13
2-	Al-Masarah village	1107	0.91%	5
3-	Jorat al-Sham'a village	1274	1.04%	5
4-	Nahalin village	7774	6.36%	25
5-	Wadi Fukin village	1808	1.48%	6
6-	Beit Sahour city	6773	5.54%	23
7-	Ubeidiya town	12097	9.90%	38
8-	Salah Dar village	2507	2.05%	8
9-	Bethlehem\ central Directorate city	32645	26.71%	103
10-	Al-Khader town	7664	6.27%	24
11-	Bayt Fajar town	13000	10.64%	41
12-	Tuqu' town	8581	7.02%	27
13-	Husan town	5287	4.33%	17
14-	Za'tara town	6846	5.60%	22
15-	Ash-Shawawra village	2776	2.27%	8
16-	Harmala village	2701	2.21%	9
17-	Battir village	2107	1.72%	7
18-	Marah Rabah village	1558	1.27%	6
19-	Wad Alniys village	906	0.74%	6
20-	Al-Walaja town	650	0.53%	6
	<b>Total =122218</b>	<b>Total= 100%</b>	<b>Total=400</b>	

### 3.5 Inclusion Criteria

- All the MOH PHCs centers which are providing pharmaceutical services.
- Any patient who has experienced at least one time the PHC's pharmacies and their age ranged from 18 to 80 years.
- All patients who are Living in Bethlehem, and are getting treatment in one of the MOH PHC centers

### **3.6 Exclusion Criteria**

- Any closed MOH PHC centers or aren't providing pharmaceutical services
- Any patient who hasn't experienced the PHC's pharmacies and their age less than 18 years and above 80 years.
- Any patient who is living in any other city, or isn't getting treatment in any MOH PHCs centers

### **3.7 Data Collection & Procedure**

Permission was obtained from the Palestinian Ministry of Health to distribute the questionnaires in its' pharmacies after the patient received the pharmaceutical services, (Research Facilitation Letter) at the beginning of January 2022 (see **appendix 3**), after the patient dispensed the medication and his\her age ranging from 18-80 years. The researcher distributed the questionnaire to fill out and a consent form was signed, and the selection mechanism was done according to the convenience sample, during the daily operational hours over two months, the visiting of each pharmacy ranged from one to five times according to the working days, and the number of beneficiaries surely must be emphasized that participation by the patient was voluntary.

Thus, the researcher had the Ethical Approval & the Research Facilitation Letter, the researcher visited Bethlehem Health Directorate to meet the chief pharmacist in charge of Bethlehem Governorate, which thankfully signed the letter and circulated it between the pharmacies of the PHCs to facilitate the process of collecting the data. The response rate was 100%.

After gathering all questionnaires, they were checked to ensure fully filled, then they were codified, entered into the computer, and statistically processed by using the statistical package for social science (SPSS) version 28. After finishing the entry process, all data was detected to ensure the filling precisely

### 3.8 Study Instrument

After reviewing several previous kinds of literature the researcher developed a self-administered English questionnaire of 48 questions used to collect the data in the study; it was translated into Arabic to match the research environment. Divided into two parts and the items of the questionnaire are grouped according to the pharmaceutical care services dimensions they are intended to measure. The corresponding items under each dimension included a five-point scale according to the Likert Scale with five degrees as follows; strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5) according to the 5 points Likert scale (**appendix 4**).

Regarding the scoring system, the minimum possible mean score was 1 and the maximum possible mean score was 5. The median score was considered as a cut-off point which was 3. Patients who score a mean score of 3 or more have considered satisfied, while patients who scored less than 3 were considered dissatisfied.

- **Part one**

Examined demographic data about each participant which formed ‘the independent variables’ in section one (gender, age, marital status, educational level, total income, living place, professional background, the far of the pharmacy from the patient’s residential, number of visits and insurance) from question 1 to question 11.

- **Part two**

There were 48 questions divided to cover eight dimensions: General pharmaceutical services (**part2 Q 1- 9**) , prescription services infrastructure ( **part 2 Q 10 - 12**), pharmacist characteristics, role and performance ( **Q 13-22**), time in the waiting room ( **Q 23-26**), prescription monitoring and screening ( **Q 27-36**), time in the counseling room ( **Q 37-39**), dispensing medication and giving instructions ( **Q 40-43**), and finally the accessibility to the pharmaceutical services and pharmacy ( **Q 44-48**). The researcher

selected the participants within the determined working hours and days in the PHC pharmacies per week, during the data collection period.

### **3.9 Piloting Study**

The validity and internal consistency of the tool were detected by piloting 16 patients selected randomly from three MOH-PHC pharmacies, the questionnaire took approximately 5-7 minutes to be filled, then the difficulties and challenges that the participants faced in filling the instrument were addressed, to delete or modify. Then the obtained data were analyzed and excluded from the research sample.

#### **3.9.1 Validity**

In order to test the validity of the research instrument what it tends to measure, and ensure its feasibility, clarity, coherence and the suitability of its items for dimensions and variables, to achieve the aim of this study, the tool was tested by 6 experts and specialists in public health, health promotion and faculty of pharmacy at Al-Quds University to judge its validity. Their comments and opinions were taken into consideration to remove the ambiguity, irrelevant and unclear items, till a consensus about the questions was reached through a deep discussion with my supervisor to format and formulate the last draft of the questionnaire.

#### **3.9.2 Reliability**

The questionnaire was tested by using the Cronbach Alpha test to ensure reliability and internal consistency of it's depending on the value of the Cronbach Alpha Coefficient, as it is based on the correlations between the individual items that make up the scale and indicates the strength of consistency between the scale items. And the result will reach the acceptable value for the purpose of this study. The higher coefficient the more reliable tool which ranged from 0, 70 to 1, 00, Cronbach Alpha coefficient for the 48 questions was 0.969.

Table (3-2) shows the reliability coefficients of the patient's satisfaction level and its domains. Overall, Cronbach's Alpha for the patient satisfaction scale was 0.957. Regarding patient's satisfaction domains, 0.826 for general pharmaceutical services, 0.740 for prescription services infrastructure, 0.894 for pharmacist characteristics, role and performance, 0.914 for the time in a waiting room, 0.930 for prescription monitoring and screening, .899 for time in the counseling room, 0.795 for dispensing medication and giving instructions and 0.780 for the accessibility to the pharmaceutical services and pharmacy.

### **Correlation coefficients**

**Table (3-2): Shows reliability coefficients of the patient's satisfaction level and its domains**

<b>Patients satisfaction domain</b>	<b>n</b>	<b>Cronbah alpha</b>
<b>General Pharmaceutical Services</b>	9	.826
<b>Prescription Services Infrastructure</b>	3	.740
<b>Pharmacist Characteristics ,Role and Performance</b>	10	.894
<b>The Time in Waiting Room</b>	4	.914
<b>Prescription Monitoring and Screening</b>	10	.930
<b>Time in Counseling Room</b>	3	.899
<b>Dispensing Medication and Giving Instructions</b>	4	.795
<b>The Accessibility to the Pharmaceutical Services and Pharmacy</b>	5	.780
<b>Overall Patients satisfaction</b>	48	.957

### **3.10 Data Analysis \ Statistical Analysis**

After collecting the data and ensuring validity for analysis. Data entry was performed by the researcher and double-checked for outliers or errors. The collected data were analyzed by the Statistical Package for Social Sciences (SPSS) Version (28). Data were tested for

normality using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Table (3-3) presents the Kolmogorov-Smirnov and Shapiro-Wilk tests, which show overall patients satisfaction mean score is normally distributed ( $p=0.144$ ) and ( $p= 0.350$ ) respectively.

Data analysis of descriptive and inferential statistics was conducted. Regarding descriptive statistics, frequency, percentages, mean score and Standard Deviation (SD) were used to describe the study variables. Regarding inferential statistics, a parametric test was used such as One Way ANOVA to assess the differences and Pearson correlation to assess the relationship between study variables.

**Table (3-3): shows tests of Normality**

Patients satisfaction domains	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	P-value	Statistic	P-value
Overall patients satisfaction	.039	.144	.996	.350

### 3.11 Ethical consideration

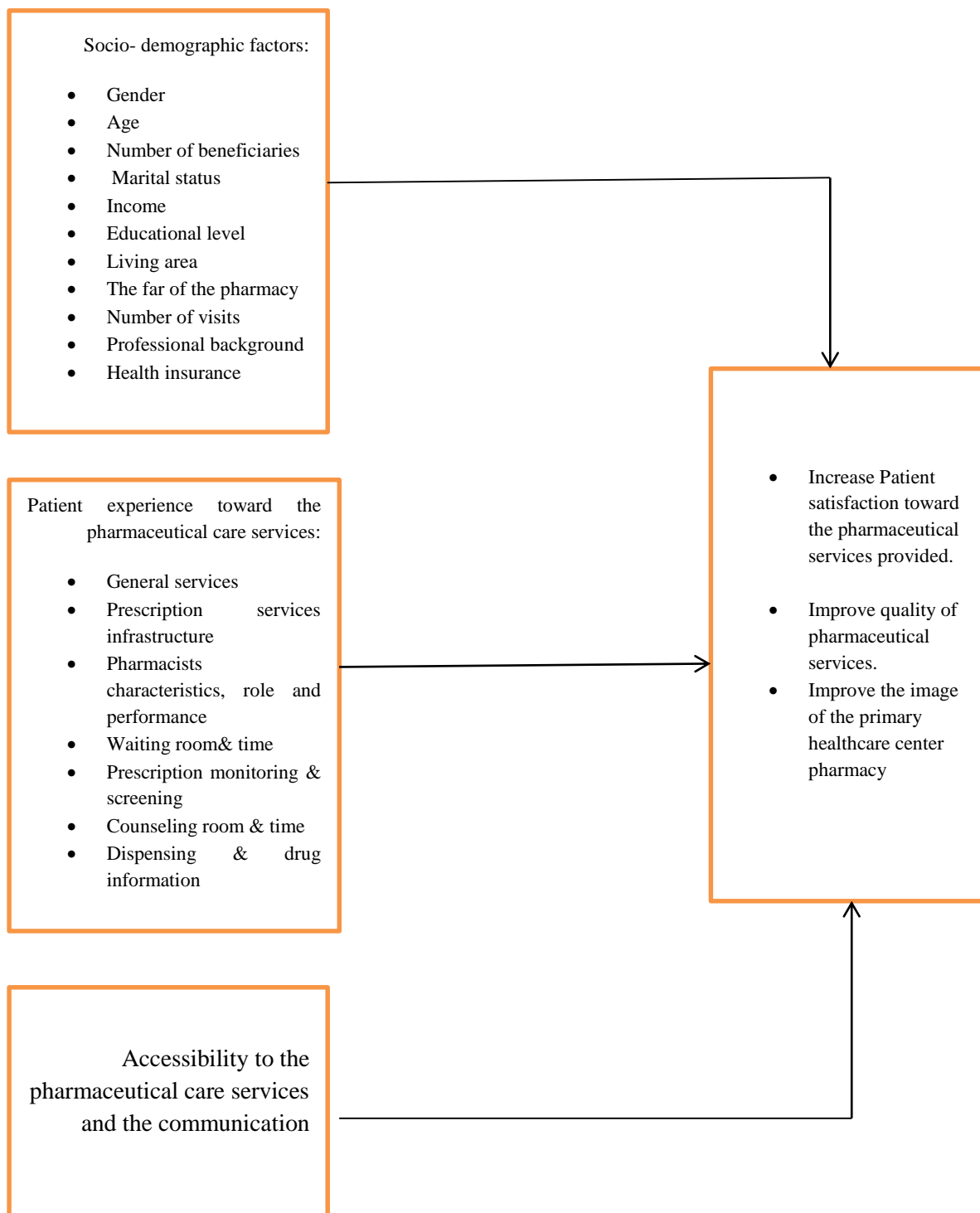
The proposal was submitted to Al Quds University-School of the public health research committee for discussion and approval and ethical approval was obtained from Al Quds University Ethical Research Committee (REC) (**See appendix 5**). Moreover, permission from the (MOH) to distribute the questionnaire in the PHC's pharmacies (**See appendix 3**), then an official request was submitted to MOH PHC's centers' managers, surely a consent form signed by each participant with an explanation about the purpose of this study, informed that the information was confidential and will be used for the purpose of the research only and was kept in a secure place, furthermore, they have the right to terminate the participation, the right to ask any question and have the full right to disclosure the study. Also, participation in this study will be voluntary.

### 3.12 Conceptual Framework

According to the literature, pharmaceutical care services consist of many dimensions, most of this literature assessed four dimensions (Vadhana, 2012) others measured six dimensions: general service, prescription service infrastructure, prescription screening and waiting time, dispensing, medication information and finally, patient counseling a (Larasanty et al., 2019). These dimensions emphasized the impact of these dimensions on patient satisfaction.

This study expanded these six dimensions and added other relevant dimensions to give a comprehensive view of the current situation such as pharmacist characteristics, role, and performance, the accessibility to pharmaceutical services and pharmacy. Therefore, the researcher rearranged the dimensions according to the nature and environment of the study to fit the purpose and to improve the results of this study, so the conceptual model

(**Figure 3-1**) is built upon the above theoretical model.



**Figure ( 3-1): Conceptual Framework by patient satisfaction dimension**

The following are definitions for the factors affecting patient satisfaction; these factors form the independent variables such as socio-demographic data in section one and the eight dimensions in section two.

### **3.13 Definition of variables**

- **Independent variables**

#### **3.13.1 Socio- demographic**

Socio-demographic data includes were presented in section one: gender, age, number of beneficiaries, marital status, total income, educational level, living area, the far of the pharmacy, number of visits, professional background, and health insurance in section one, shown by questions 1-11

#### **3.12.2 The eighth dimensions in section two include:**

- **General Pharmaceutical services** are covered in the first dimension in section two of the questionnaire and the related questions are 1, 2, 3, 4, 5, 6, 7, 8, and 9.
- **Prescription service infrastructure** is covered in the second dimension in section two of the questionnaire and the related questions are 10, 11, and 12.
- **Pharmacist characteristics, role, and performance** is covered in the third dimension in section two and the questions are 13, 14...to 22.
- **Patient Waiting time & room** is the fourth dimension in section two of the questionnaire covered it in questions 23, 24, 25, and 26.
- **Prescription screening & monitoring** formed the fifth dimension in section two of the questionnaire with questions 27, 28..., and 36.
- **Counseling time & room** formed the sixth dimension in section two of the questionnaire with questions 37, 38, and 39.
- **Dispensing Medication and Giving Instructions** formed the seventh one in section two of the questionnaire with questions 40, 41, 42, and 43.

- **The Accessibility to the Pharmaceutical Services and Pharmacy** covered the last dimension in section two of the questionnaire in questions 44, 45, 46, 47, and 48.

- **Dependent variable**

**Patient satisfaction:** the main dependent variable to measure patients' actual experience with the pharmaceutical care services.

## Chapter Four

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### Results

This chapter serves as the culmination of the previous chapters, in that it focuses on how to present the results of one's study.

Table (4-1) shows the socio-demographic characteristics of the patients. Closely, more than two-thirds of patients are as follow; female and aged less than 40 years old. More than two-thirds of patients were married. Out of 400 patients, 153 (38.3%) have a Bachelor's Degree and 105 (26.3%) have secondary education. 178 (44.5%) of patients were unemployed, 177 (44.3%) non-healthcare providers and 45 (11.2%) were healthcare providers.

**Table (4-1): Socio-demographic characteristics of the patients (n=400)**

<b>Socio-demographic characteristics</b>		<b>n</b>	<b>%</b>
<b>Gender</b>	Male	144	36.0
	Female	256	64.0
<b>Age</b>	≤40 years old	245	61.3
	> 40 years old	155	38.8
<b>Marital status</b>	Single	63	15.8
	Married	296	74.0
	Widow	30	7.5
	Divorce	7	1.8
	Separated	4	1.0
<b>Monthly income</b>	<1000 NIS	95	23.8
	1000-2000 NIS	121	30.3
	2001-3000 NIS	119	29.8
	3001-4000 NIS	40	10.0
	>4000 NIS	25	6.3
<b>Educational Level</b>	Illiterate	26	6.5
	Primary	46	11.5
	Secondary	105	26.3
	Diploma	58	14.5
	Bachelor's Degree	153	38.3
	Master and higher degree (PhD)	12	3.0
<b>Living area</b>	Camp	20	5
	Village	274	68.5
	City	106	26.5
<b>Occupation</b>	Health care providers	45	11.2
	Non health care providers	177	44.3
	Unemployed	178	44.5
<b>Number of visited</b>	First time	7	1.8
	Weekly	39	9.8
	Monthly	154	38.5
	Necessity	196	49.0
	Others	4	1.0
<b>Types of health insurance</b>	Governmental	358	89.5
	Private	12	3.0
	UNRWA	11	2.8
	Others	19	4.8

Table (4-2) shows the item related to pharmaceutical services. 198 (49.5%) of patient families have 2-4 persons who have been beneficiaries from the pharmaceutical services, 119 (29.8%) have more than five persons, while 83 (20.8%) have one person. 64 (16%) of patients live far from pharmaceutical services, 190 (47.5%) were moderate and 146

(36.5%) were near. In addition, more than half of pharmaceutical services were located in the north of Bethlehem city.

**Table (4-2): Items related to the pharmaceutical services (n=400)**

<b>Item</b>		<b>n</b>	<b>%</b>
<b>Number of beneficiaries from the pharmaceutical services provided to family</b>	One person	83	20.8
	2-4 persons	198	49.5
	≥ 5 persons	119	29.8
<b>The far of the pharmacy from place of residence</b>	Near	146	36.5
	Moderate	190	47.5
	Far	64	16.0
<b>Geographic Location of the Primary healthcare Pharmacies</b>	North	214	53.5
	Middle	95	23.8
	South	91	22.8

Table (4-3) illustrates the mean score of the overall patient satisfaction and its domains. The cut-off point was (3). The overall patient satisfaction toward *pharmaceutical services* was satisfied with M= 3.10, SD= .651. Regarding the patient's satisfaction domains, the highest satisfaction has been shown toward prescription services infrastructure and pharmacist characteristics, role, and performance with M= 3.73, SD= .702 and M= 3.34, SD= .772 respectively. On the other hand, the lowest satisfaction has been shown toward time in the counseling room, and the time in the waiting room with M= 2.57, SD=1.176 and M= 2.85, 1.095 respectively.

**Table (4-3): Mean score of patients' satisfaction and for each domains toward pharmaceutical services (n=400)**

<b>Patients Satisfaction Domains</b>	<b>Mean*</b>	<b>SD</b>	<b>%</b>	<b>Status</b>
General Pharmaceutical Services	3.21	.676	64.2	Satisfied
Prescription Services Infrastructure	3.73	.702	74.6	Satisfied
Pharmacist Characteristics, Role and Performance	3.34	.772	66.8	Satisfied
The Time in Waiting Room	2.85	1.095	57	Dissatisfied
Prescription Monitoring and Screening	2.89	.915	57.8	Dissatisfied
Time in Counseling Room	2.57	1.176	51.4	Dissatisfied
Dispensing Medication and Giving Instructions	3.15	.920	63	Satisfied
The Accessibility to the Pharmaceutical Services and Pharmacy	2.98	.882	59.6	Dissatisfied
<b>Overall patients satisfaction</b>	<b>3.10</b>	<b>.651</b>	62	<b>Satisfied</b>

*SD: Standard Deviation*

*\*Mean out of 5 points.*

Table (4-4) shows the *mean score for each item regarding general pharmaceutical services among patients*. The highest satisfaction has been shown toward the tidiness of the pharmacy and medicine storage with M= 3.75, SD= .784, and M= 3.56, SD=.836 respectively. However, the lowest dissatisfaction has been shown toward that the pharmacist registering the dispensed medicines to me in my medical record and the availability of my medical record in the pharmacy with M= 2.40, SD=1.321, and M= 2.42 SD= 1.315.

**Table (4-4): Mean score for each item regarding general pharmaceutical services  
among patients (n= 400)**

Item	Mean*	SD	%	Status
1. Are you satisfied with the provided pharmaceutical services?	3.46	1.028	69.2	Satisfied
2. Are you satisfied with the operational hours of the pharmacy?	3.53	.942	70.6	Satisfied
3. Are you satisfied with the weekly vacation	3.55	.930	71	Satisfied
4. Are you satisfied with the quality of dispensed medicine?	3.55	.941	71	Satisfied
5. Are you satisfied with the availability of medicines and health appliances you need?	2.72	1.175	54.4	Dissatisfied
6. Are you satisfied with the tidiness of the pharmacy?	3.75	.784	75	Satisfied
7. Are you satisfied with medicine storage?	3.56	.836	71.2	Satisfied
8. Are you satisfied with the availability of your medical record in the pharmacy?	2.42	1.315	48.4	Dissatisfied
9. The pharmacist registers the dispensed medicines to me in my medical record?	2.40	1.321	48	Dissatisfied

\*Mean out of 5 points.

Table (4-5) shows the *mean score for each item regarding prescription services infrastructure among patients*. The highest satisfaction has been shown toward writing my name and age in the prescription, and the commitment of writing the date of dispensed prescription with M= 3.87, SD= .795 and M= 3.80, SD=.856 respectively.

**Table (4-5): Mean score for each item regarding prescription services infrastructure  
among patients (n= 400)**

Item	Mean*	SD	%	Status
1. I'm satisfied with writing my name and age in the prescription	3.87	.795	77.4	Satisfied
2. I'm satisfied with the availability of the name of the clinic which the prescription was dispensed from	3.54	.941	70.8	Satisfied
3. I'm satisfied with the commitment of writing the date of dispensed prescription	3.80	.856	76	Satisfied

\*Mean out of 5 points.

Table (4-6) shows the *mean score for each item regarding pharmacist characteristics, role, and performance among patients*. The highest satisfaction has been shown toward that the pharmacist treats me tactfully and politely with M= 4.01, SD= .819. However, the lowest

dissatisfaction has been shown toward pharmacist asked me about my health status and provided me with the appropriate nutritional advice commensurate with the medicines that have been dispensed to me with  $M= 2.66$ ,  $SD=1.275$ , and  $M= 2.81$ ,  $SD= 1.229$  respectively.

**Table (4-6): Mean score for each item regarding pharmacist characteristics, role and performance among patients (n= 400)**

Item	Mean*	SD	%	Status
1. The pharmacist treats me in a tactful and polite manner	4.01	.819	80.2	Satisfied
2. The number of pharmacists is sufficient in the pharmacy	3.42	1.059	68.4	Satisfied
3. I'm satisfied with the pharmacist's performance	3.86	.845	77.2	Satisfied
4. I was given information about how to use the medicine	3.43	1.135	68.6	Satisfied
5. The pharmacist listens interestedly to my inquires	3.64	.947	72.8	Satisfied
6. The pharmacist accepts my repeated requests for medical advice patiently	3.48	.963	69.6	Satisfied
7. I have been provided with the appropriate nutritional advice commensurate with the medicines that have been dispensed to me	2.81	1.229	56.2	Dissatisfied
8. I have been provided with information about the proper method to store medicine in the home	2.94	1.241	58.8	Dissatisfied
9. I have been asked about my health status	2.66	1.275	53.2	Dissatisfied
10. The pharmacist made sure of my understanding of how to use the medicine in an appropriate way	3.18	1.157	63.6	Satisfied

*\*Mean out of 5 points.*

Table (4-7) shows the mean score for each item regarding the time in the waiting room among patients. The highest dissatisfaction has been shown toward the availability of sufficient seats in the waiting room and the place is suitable and comfortable with  $M= 2.64$ ,  $SD= 1.233$  and  $M= 2.88$ ,  $SD= 1.231$  respectively.

**Table (4-7): Mean score for each item regarding the time in waiting room among patients (n= 400)**

Item	Mean*	SD	%	Status
1. I'm satisfied with the availability of waiting room	2.96	1.270	59.2	Dissatisfied
2. The place is suitable and comfortable	2.88	1.231	57.6	Dissatisfied
3. I'm satisfied with the availability of sufficient seats in the waiting room	2.64	1.233	52.8	Dissatisfied
4. I'm satisfied with the waiting time of medicine dispensing	2.94	1.180	58.8	Dissatisfied

*\*Mean out of 5 points.*

Table (4-8) shows the mean score for each item regarding prescription monitoring and screening among patients. The highest satisfaction has been shown toward pharmacists checking the availability of prescribed medication, and pharmacists make sure of the appropriate prescribed dose with  $M= 3.58$ ,  $SD= 1.011$  and  $M= 3.50$ ,  $SD=1.048$  respectively. On the other hand, patients were dissatisfied with the pharmacist's communication to follow up on my health status with  $M=2.20$ ,  $SD= 1.150$ . Furthermore, patients were dissatisfied if there is a problem with the prescription, and the pharmacist called\communicated with the treating physician with  $M= 2.54$ ,  $SD= 1.272$ .

**Table (4-8): Mean score for each item regarding prescription monitoring and screening among patients (n= 400)**

<b>Item</b>	<b>Mean*</b>	<b>SD</b>	<b>%</b>	<b>Status</b>
1. The pharmacist checked the availability of prescribed medication	3.58	1.011	71.6	Satisfied
2. The pharmacist make sure of the appropriate prescribed dose	3.50	1.048	70	Satisfied
3. The pharmacist dispensed a sufficient amount of medication to complete the treatment period	3.35	1.110	67	Satisfied
4. Pharmacists conduct prescription screening to prevent duplication of medications in prescription	3.00	1.129	60	Satisfied
5. Pharmacists conduct prescription screening to determine potential or actual drug interactions in the prescription	2.87	1.142	57.4	Dissatisfied
6. The pharmacist opened my medical record to verify for any drug interaction with the previously dispensed medicines	2.30	1.200	46	Dissatisfied
7. The pharmacist asked the me about any drug allergy history	2.85	1.303	57	Dissatisfied
8. The pharmacist told me about any potential side effects	2.72	1.290	54.4	Dissatisfied
9. If there is a problem with the prescription, the pharmacist calls\communicates with the treating physician	2.54	1.272	50.8	Dissatisfied
10. the pharmacist communicates with me by telephone to follow up on my health status to register notes in my medical record	2.20	1.150	44	Dissatisfied

*\*Mean out of 5 points.*

Table (4-9) shows the mean score for each item regarding time in the counseling room among patients. The highest dissatisfaction has been shown toward the respecting of privacy during the medication counseling, and the availability of a counseling room with M= 2.40, SD= 1.347 and M= 2.54, SD= 1.279 respectively.

**Table (4-9): Mean score for each item regarding time in the counseling room among patients (n= 400)**

Item	Mean*	SD	%	Status
1. I'm satisfied with the availability of a counseling room and responsible pharmacist to provide medication advice	2.54	1.279	50.8	Dissatisfied
2. I'm satisfied with the counseling time	2.78	1.239	55.6	Dissatisfied
3. I'm satisfied with the respecting of privacy during the medication counseling	2.40	1.347	48	Dissatisfied

*\*Mean out of 5 points.*

Table (4-10) shows the mean score for each item regarding dispensing medication and giving instructions to patients. The highest satisfaction has been shown toward the method of using the medicine is written clearly with M= 3.42, SD= .1.083. While, dissatisfaction has been shown in the preparation of the suspension with M= 2.86, and SD= 1.236.

**Table (4-10): Mean score for each item regarding dispensing medication and giving instructions among patients (n= 400)**

Item	Mean*	SD	%	Status
1. I'm satisfied with the suitability of the special place for dispensing the medicine (the counter and the glass window) in terms of the patients' height and hearing strength	3.15	1.226	63	Satisfied
2. I'm satisfied with the method of medication dispensing	3.16	1.127	63.2	Satisfied
3. I'm satisfied with the preparation of the suspension	2.86	1.236	57.2	Dissatisfied
4. The method of using the medicine is written clearly	3.42	1.083	68.4	Satisfied

*\*Mean out of 5 points.*

Table (4-11) shows the mean score for each item regarding the accessibility to pharmaceutical services and pharmacy among patients. The highest satisfaction has been shown toward the location of the pharmacy with M= 3.50, SD= .1.106. While the dissatisfaction has been shown in the private phone number for the pharmacy is available with M= 2.48, SD= 1.278.

**Table (4-11): Mean score for each item regarding the accessibility to pharmaceutical services and pharmacy among patients (n= 400)**

Item	Mean*	SD	%	Status
1. Location of pharmacy is suitable for me	3.50	1.106	70	Satisfied
2. Availability of near public transportation	3.29	1.187	65.8	Satisfied
3. Private parking is available	2.82	1.241	56.4	Dissatisfied
4. Signage is available to determine the location of the pharmacy clearly	2.82	1.234	56.4	Dissatisfied
5. A private phone number for the pharmacy is available to facilitate the inquiries	2.48	1.278	49.6	Dissatisfied

*\*Mean out of 5 points.*

Table (4-12) One Way ANOVA shows that was used to assess the differences between the geographic locations of the primary healthcare pharmacies in terms of each domain of patient satisfaction toward pharmaceutical services. The One Way ANOVA indicated no significant difference between the geographic location of the primary healthcare pharmacies in terms of general pharmaceutical services ( $p=0.086$ ), prescription services infrastructure ( $p=0.139$ ), time in the waiting room ( $p= 0.331$ ), and the accessibility to the pharmaceutical services and pharmacy ( $p=0.148$ ).

Regarding the pharmacist characteristics, role and performance, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p<0.001$ ). A Tukey post-hoc-test has shown patients have satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.54$ ,  $SD= .827$ ) more than north ( $M=3.16$ ,  $SD= .680$ ) in terms of pharmacist characteristics, role, and performance ( $P<0.001$ ).

Regarding prescription monitoring and screening, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p<0.001$ ). A Tukey post-hoc-test has shown patients have satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.14$ ,  $SD= .954$ ) more than north ( $M=2.59$ ,  $SD=$

.8473) in terms of prescription monitoring and screening ( $p < 0.001$ ). Furthermore, patients have satisfied with pharmaceutical services located in the south of Bethlehem city ( $M=3.06$ ,  $SD= .828$ ) than in the north ( $M=2.59$ ,  $SD= .847$ ) in terms of prescription monitoring and screening ( $p < 0.001$ ).

Regarding the time in the counseling room, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p=0.003$ ). A Tukey post-hoc-test has shown patients have dissatisfied with pharmaceutical services located in the north of Bethlehem city ( $M=2.36$ ,  $SD= 1.103$ ) more than middle ( $M=2.81$ ,  $SD= .1.204$ ) in terms of time in the counseling room ( $P=0.002$ ).

Regarding dispensing medication and giving instructions, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p=0.012$ ). A Tukey post-hoc-test has shown patients satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.27$ ,  $SD= .912$ ) more than in the north ( $M=2.99$ ,  $SD= .908$ ) in terms of dispensing medication and giving instructions ( $P=0.020$ ).

Regarding overall patient satisfaction, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p < 0.001$ ). A Tukey post-hoc-test has shown patients satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.24$ ,  $SD= .686$ ) more than in the north ( $M=2.95$ ,  $SD= .590$ ) in terms of overall patients' satisfaction ( $p < 0.001$ ). Furthermore, patients have satisfied with pharmaceutical services located in the south of Bethlehem city ( $M=3.18$ ,  $SD= .656$ ) more than in the north ( $M=2.95$ ,  $SD= .590$ ) in terms of overall patients' satisfaction ( $p=0.016$ ).

**Table (4-12): Differences between geographic location of the primary healthcare pharmacies in terms of each domain of patient's satisfaction toward pharmaceutical services (n=400)**

Satisfaction domains	Geographic Location of the Primary healthcare Pharmacies	n	Mean**	SD	Statistical value	P-value
<b>General Pharmaceutical Services</b>	North	174	3.13	.692	F= 2.466 df=2	0.086
	Middle	135	3.31	.650		
	South	91	3.21	.671		
<b>Prescription Services Infrastructure</b>	North	174	3.72	.729	F= 1.982 df=2	0.139
	Middle	135	3.81	.715		
	South	91	3.62	.616		
<b>Pharmacist Characteristics, Role and Performance</b>	North	174	3.16	.680	F= 10.210 df=2	<0.001*
	Middle	135	3.54	.827		
	South	91	3.38	.776		
<b>Time in Waiting Room</b>	North	174	2.81	1.114	F= 1.108 df=2	0.331
	Middle	135	2.80	1.162		
	South	91	3.00	.941		
<b>Prescription Monitoring and Screening</b>	North	174	2.59	.847	F= 17.089 df=2	<0.001*
	Middle	135	3.14	.954		
	South	91	3.06	.828		
<b>Time in Counseling Room</b>	North	174	2.36	1.103	F= 6.015 df=2	0.003*
	Middle	135	2.81	1.204		
	South	91	2.63	1.204		
<b>Dispensing Medication and Giving Instructions</b>	North	174	2.99	.908	F= 4.450 df=2	0.012*
	Middle	135	3.27	.912		
	South	91	3.25	.920		
<b>The Accessibility to the Pharmaceutical Services and Pharmacy</b>	North	174	2.90	.876	F= 1.917 df=2	0.148
	Middle	135	2.98	.921		
	South	91	3.12	.826		
<b>Overall patient satisfaction</b>	North	174	2.95	.590	F= 8.824 df=2	<0.001*
	Middle	135	3.24	.686		
	South	91	3.18	.656		

*df. Degree of Freedom*

*\*. Significant at  $p \leq 0.05$*

*\*\*Mean out of 5 points.*

Table (4-13) the One Way ANOVA shows that was used to assess the differences between socio-demographic characteristics in terms of overall patients' satisfaction. The One Way ANOVA indicated no significant difference between marital status ( $p= 0.111$ ) and the number of visits to primary health pharmacies ( $p= 0.070$ ) in terms of overall patients' satisfaction.

Regarding the place of residence, a significant difference was found in terms of overall patients' satisfaction ( $p<0.001$ ). A Tukey post-hoc-test has patients who live in a village ( $M= 3.18$ ,  $SD= .621$ ) have more satisfaction than those living in a city ( $M=2.89$ ,  $SD= .688$ ) in terms of overall patients' satisfaction ( $p<0.001$ ).

Regarding occupation, a significant difference was found in terms of overall patients' satisfaction ( $p=0.020$ ). A Tukey post-hoc-test has shown unemployed patients ( $M= 3.17$ ,  $SD= .594$ ) have more satisfaction than non-healthcare providers ( $M=3.00$ ,  $SD= .690$ ) in terms of overall patients' satisfaction ( $p=0.035$ ).

Regarding health insurance, a significant difference was found in terms of overall patients' satisfaction ( $p=0.047$ ). A Tukey post-hoc-test has shown patients who had governmental health insurance ( $M= 3.08$ ,  $SD= .634$ ) have less satisfaction than other health insurance ( $M=3.50$ ,  $SD= .572$ ) in terms of overall patients' satisfaction ( $p=0.035$ ).

**Table (4-13): Differences between socio-demographic characteristics of patients in terms of patient's satisfaction toward**

Socio-demographic characteristics		n	Mean**	SD	Statistical value	P-value
<b>Marital status</b>	Married	63	3.15	.625	F= 1.891 df= 4	0.111
	Single	296	3.12	.668		
	Divorced	30	2.95	.478		
	Widowed	7	2.98	.729		
	Separated	4	2.36	.324		
<b>Place of residence</b>	Camp	20	3.12	.625	F= 8.237 df= 2	<0.001*
	Village	274	3.18	.621		
	City	106	2.89	.688		
<b>Occupation</b>	Health care providers	45	3.22	.667	F= 3.938 df= 2	0.020*
	Non health care providers	177	3.00	.690		
	Unemployed	178	3.17	.594		
<b>Number of visits to primary health pharmacies</b>	First time	7	3.52	.491	F= 2.188 df= 4	0.070
	Weekly	39	3.06	.621		
	Monthly	154	3.09	.600		
	Necessity	196	3.09	.683		
	Others	4	3.86	1.049		
<b>Type of health insurance</b>	Governmental	358	3.08	.634	F= 2.675 df= 3	0.047*
	Private	12	3.18	.978		
	UNRWA	11	2.97	.762		
	Others	19	3.50	.572		

*df. Degree of Freedom*

*\*. Significant at  $p \leq 0.05$*

*\*\*..Mean out of 5 points.*

Table (4-14) shows the correlation coefficient between variables. Pearson correlation indicated a significant positive small correlation between overall patient satisfaction and the number of beneficiaries from the services provided by the primary health pharmacies to family ( $r = 0.177$ ,  $p = <0.001$ ). Results suggested that patients who have more beneficiaries from the services provided by the primary health pharmacies to their families have more satisfaction toward health services. Furthermore, a significant negative small correlation between overall patient satisfaction and the far of the pharmacy from their place of residence ( $r = -0.141$ ,  $p = 0.005$ ). Results suggested that patients who live near primary health pharmacies have more satisfied with health services.

**Table (4-14): Pearson correlation between variables (n=400)**

Variables		Overall patients satisfaction	Age	Number of beneficiaries from the services provided to family	Income	Level of education	Far of the pharmacy from residence
Overall patients satisfaction	r	1					
	P value						
Age	r	-.053	1				
	P value	.286					
Number of beneficiaries from the services provided to family	r	.177	-.093	1			
	P value	<.001*	.063				
Monthly income	r	.097	-.168	.152	1		
	P value	.052	<.001	.002			
Level of education	r	-.021	-.372	.078	.434	1	
	P value	.674	<.001	.118	<.001		
Far of the pharmacy from residence	r	-.141	-.037	-.079	-.058	-.090	1
	P value	.005*	.457	.115	.249	.072	
<p>*. Correlation is significant at the <math>p \leq 0.05</math>  r. Pearson Correlation</p>							

## **Chapter Five**

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### **Discussion, Conclusion and Recommendations**

This chapter discussed the main study's results with previous studies, then the conclusion and recommendations were mentioned next.

#### **Discussion**

This study was implemented to assess patient satisfaction towards the pharmaceutical care services provided by primary healthcare pharmacies in Bethlehem Governorate, the study assessed eight main domains including general pharmaceutical services, prescription services infrastructure, pharmacist characteristics, role and performance, the time in the waiting room, prescription monitoring and screening, time in the counseling room, dispensing medication and giving instructions, and the accessibility to the pharmaceutical services and pharmacy.

The response rate was (100%); higher than the response rates of previous assessments of patient's satisfaction in the United Arab Emirates study (93.8%), Ethiopian study (50%), Qatari study (55%) and Pakistan study rate (80%). It's similar to measuring patients' satisfaction with pharmaceutical services in Nablus City Hospitals (100%).

#### **How is the pharmaceutical care services provided at the primary health levels in Bethlehem? (objective1+2)**

Patients from Bethlehem Governorate in general satisfied with the pharmaceutical care services provided by primary health pharmacies. The overall patient satisfaction

toward pharmaceutical care services was satisfied with  $M= 3.10$ ,  $SD= .651$ . Regarding the patients' satisfaction domains, the highest satisfaction has been shown toward prescription services infrastructure and pharmacist characteristics, role, and performance with  $M= 3.73$ ,  $SD= .702$  and  $M= 3.34$ ,  $SD= .772$  respectively. Then the general pharmaceutical services and dispensing medication and giving instructions with  $M= 3.21$ ,  $SD= .676$  and  $M= 3.15$ ,  $SD= .920$  respectively. Then the accessibility to the pharmaceutical services and pharmacy and prescription monitoring and screening with  $M= 2.98$ ,  $SD= .882$  and  $M= 2.89$ ,  $SD= .915$  respectively. On the other hand, the lowest satisfaction has been shown toward time in the counseling room, and the time in the waiting room with  $M= 2.57$ ,  $SD=1.176$ , and  $M= 2.85$ ,  $SD= 1.095$  respectively.

The result of the overall patient satisfaction toward pharmaceutical services agrees with (Radad et al, 2016; Soeiro et al., 2010; Hasen and Negeso 2021; Ismail et al., 2020; Mohamed et al., 2022; Shraim, 2019; Sadi et al., 2019 and Aziz et al., 2018) studies. Despite the previous studies mentioned showing general satisfaction with the pharmaceutical services provided, every study of them came out with recommendations because each study examined more than one factor which affected PS.

- General pharmaceutical services

The highest items of satisfaction related to general services have been shown toward the tidiness of the pharmacy and medicine storage with  $M= 3.75$ ,  $SD= .784$ , and  $M= 3.56$ ,  $SD=.836$  respectively. However, the lowest items of dissatisfaction have been shown toward that the pharmacist registering the dispensed medicines to the patient's medical record and the availability of medical records in the pharmacy with  $M= 2.40$ ,  $SD=1.321$ , and  $M= 2.42$   $SD= 1.315$ .

The tidiness of the pharmacy goes along with (Radad et al., 2016; Aziz et al., 2018) which is related to medication storage.

As for the electronic medical record, this study contradicted most of the studies because the mechanism for dispensing the drug in most countries, whether they are globally or regionally depends on the computerized health information system (Sadi et al., (2019).

- Prescription services infrastructure

The results showed the highest satisfaction has been shown toward writing the patient's name and age in the prescription, and the commitment of writing the date of dispensed prescription with  $M= 3.87$ ,  $SD= .795$  and  $M= 3.80$ ,  $SD=.856$  respectively. The third item in this dimension was the availability of the name of the clinic which the prescription was dispensed from scored  $M= 3.5$ ,  $SD=.94$ . In general, patients are satisfied with the prescription services infrastructure which is consistent with the result of (Larasanty et al., 2019).

- pharmacist characteristics, role and performance

All the studies held patient satisfaction has become one of the most important humanistic outcome measures in pharmacy service since the modern role of the pharmacist has shifted from the traditional activity of dispensing medications to the broader responsibilities of pharmacy service. But pharmacy service requires a more intensive relationship between the pharmacist and patient than only dispensing medication.

The highest satisfaction has been shown toward that the pharmacist treating the patient tactfully and politely with  $M= 4.01$ ,  $SD= .819$ . However, the lowest dissatisfaction has been shown toward pharmacists who asked the patient about his health status and provided him with the appropriate nutritional advice commensurate with the medicines that have been dispensed to the patient with  $M= 2.66$ ,  $SD=1.275$ , and  $M= 2.81$ ,  $SD= 1.229$  respectively. Contrary to the results of (Hasen and Negeso 2021) PS towards pharmaceutical services was low due to many factors including a lack of specific clinical pharmacists. However, it agreed with (Ismail et al., 2020), while (Mohamed et al., 2022)

extracted that most of the respondents were satisfied with the performance and the way that the pharmacist dealt with them, and (El-Sharif et al., 2017) focused on the educational information provided by the pharmacist to respondents. Participants were asked whether they were given advice about smoking, and nutrition...) besides many services offered by the community pharmacist, the majority of respondents were satisfied.

- The time in the waiting room

For its importance, the majority of studies examining patient satisfaction have looked at the availability of waiting rooms, seats and comfortability and waiting time. The study showed dissatisfaction with all the items the highest dissatisfaction has been shown toward the availability of sufficient seats in the waiting room and the place is suitable a comfortable with  $M= 2.64$ ,  $SD= 1.233$  and  $M= 2.88$ ,  $SD= 1.231$  respectively. Goes along with (Aziz et al., 2018), (Radad et al., 2016), and (Mohamed et al., 2022), this result is due to the non-implementation of the HIS system which leads to poor communication between the attending physicians and the pharmacies that discussed intensively in (Sadi et al., (2019) study and how reduced the waiting time from 21.5 to 4 minutes. Also, the overcrowding due to short working hours (Shraim, 2019) contradicts the study results because the governmental hospitals implemented the HIS system and have AM and PM duties.

- Prescription monitoring and screening

In addition, the highest satisfaction has been shown toward pharmacists checking the availability of prescribed medication, and pharmacists make sure of the appropriate prescribed dose with  $M= 3.58$ ,  $SD= 1.011$  and  $M= 3.50$ ,  $SD=1.048$  respectively. On the other hand, patients were dissatisfied with the pharmacist's communication to follow up on patients health status with  $M=2.20$ ,  $SD= 1.150$ . Furthermore, patients were dissatisfied if there is a problem with the prescription and the pharmacist called\communicated with the treated physician with  $M= 2.54$ ,  $SD= 1.272$ .

In general, all the studies revealed that there was poor communication between the pharmacists and patients to follow up on their health status, and few showed bad communication between the pharmacists and physicians. The aim of this dimension with its items is to examine the awareness and knowledge of the patients toward pharmaceutical services and their rights to have optimal care.

Ismail et al., (2020) & El- Sharif et al., (2019) results showed that some older age, higher education and medical background were associated with lower patient satisfaction. In general, Patient satisfaction was relatively high in accordance with age, education, frequency of visits, self-perceived health status and general knowledge of pharmacists were factors significantly associated with patient satisfaction. The researchers assured the importance of paying special attention should be given to the elderly, patients with high education, first-time visitors to the pharmacy, patients who perceive themselves in poorer health status and those who have poor general knowledge of pharmacists.

- The time in the counseling room

The highest dissatisfaction has been shown toward the respecting of privacy during the medication counseling, and the availability of a counseling room with  $M= 2.40$ ,  $SD= 1.347$  and  $M= 2.54$ ,  $SD= 1.279$  respectively. This means that there is no private counseling room; the pharmacist who gives advice from the counter is the same as the pharmacist who dispenses the medicine.

Regarding privacy, the study goes along with all studies, especially (El- Sharif et al., 2019; Larasanty et al., 2019) despite the availability of a counseling room and pharmacist to provide advice, there was no satisfaction.

- Dispensing medication and giving instructions

The highest satisfaction showed toward the method of using the medicine is written clearly with  $M= 3.42$ ,  $SD= .1.083$ . While, dissatisfaction showed in the preparation of the suspension with  $M= 2.86$ , and  $SD= 1.236$ .

The study revealed that the medicine is not prepared in any government institutions, however, most of the results of the previous studies were consistent with the results of the study; despite the difference in the way the drug information was given. In this study, the given information was written on the drug package, while in most of the other studies it was labeled.

- The accessibility to pharmaceutical services

The highest satisfaction shown toward the location of the pharmacy with  $M= 3.50$ ,  $SD= .1.106$ . The reason for the PS toward the location because every health center (pharmacy) is located in an area that serves the residents of this area, While the dissatisfaction has been shown in the private phone number for the pharmacy is available with  $M= 2.48$ ,  $SD= 1.278$  because there is one phone number for the serving all sections of the center.

#### **Differences between demographic characteristics, in terms of patient satisfaction toward the pharmaceutical care services at PHCs pharmacies:**

The results showed that there were no significant differences at the significance level ( $p \leq 0.05$ ) in the patient assessment between marital status ( $p= 0.111$ ) and the number of visits to primary health pharmacies ( $p= 0.070$ ) in terms of overall patients' satisfaction.

Concerning the place of residence, a significant difference was found in terms of overall patients' satisfaction ( $p < 0.001$ ). A Tukey post-hoc-test used to assess the significant differences between two pairs of groups\variables, showed patients who live in a village ( $M= 3.18$ ,  $SD= .621$ ) have more satisfaction than those living in a city ( $M=2.89$ ,  $SD= .688$ ) in terms of overall patients' satisfaction ( $p < 0.001$ ).

Regarding occupation, a significant difference was found in terms of overall patients' satisfaction ( $p=0.020$ ). A Turkey post-hoc-test had shown unemployed patients ( $M= 3.17$ ,  $SD= .594$ ) have more satisfaction than non-healthcare providers ( $M=3.00$ ,  $SD= .690$ ) in terms of overall patients' satisfaction ( $p=0.035$ ).

Regarding health insurance, a significant difference was found in terms of overall patients' satisfaction ( $p=0.047$ ). A Tukey post-hoc-test showed patients who had governmental health insurance ( $M= 3.08$ ,  $SD= .634$ ) have less satisfaction than other health insurance ( $M=3.50$ ,  $SD= .572$ ) in terms of overall patients' satisfaction ( $p=0.035$ ).

In addition, the results of Pearson correlation between variables indicated a significant positive small correlation between overall patient satisfaction and the number of beneficiaries from the services provided by the primary health pharmacies to the family ( $r= 0.177$ ,  $p= <0.001$ ). Results suggested that patients who have more beneficiaries from the services provided by the primary health pharmacies to their families have more satisfaction toward health services. Furthermore, a significant negative small correlation between overall patient satisfaction and the far of the pharmacy from their place of residence ( $r= - 0.141$ ,  $p= 0.005$ ). Results suggested that patients who live near primary health pharmacies have more satisfied with health services.

The results agree with Wirasuta (2019) which indicates that patients have a higher expectation of the provided pharmaceutical care services compared to the actual experience of the healthcare services that they received, resulting in a low value in the measurement of patient satisfaction levels.

The previous results disagree with Raddad's (2016) study which revealed a huge dissatisfaction of the Arab community in Jerusalem city towards some of the health care services, such as emergency services, x-ray services, and provision of bone specialist services and working hours of health care centers. The result of the study also showed four

factors that have effects on patients' satisfaction in the Old City of Jerusalem which includes hierarchically, time and access, the physical environment in the health care centers, cost and health insurance, and comprehensiveness and quality of the health.

**Differences between patients district in terms of patients' satisfaction toward the pharmaceutical services provided at PHCs pharmacies:**

The results of the study showed that there were no significant differences at the significance level ( $p \leq 0.05$ ) in the geographic location of the primary healthcare pharmacies in terms of general pharmaceutical services ( $p=0.086$ ), prescription services infrastructure ( $p=0.139$ ), time in the waiting room ( $p=0.331$ ), and the accessibility to the pharmaceutical services and pharmacy ( $p=0.148$ ).

Radad and his colleagues cited that time, access, comprehensiveness and the quality of the health services are factors that have effects on PS in the Old City of Jerusalem. While (Khudair & Raza., 2013) revealed that patient satisfaction is positively affected by pharmacy location and waiting room.

(Radad et al., 2016; Aziz et al., 2018 and Larasanty et al., 2019) recommended a serious improvement for the pharmaceutical services and raise the patient's awareness of these services.

Already there has been an application for a quality improvement project seeking to improve the waiting time and can identify the areas of improvement in CPH, actually, the intervention reduced the waiting time from 21.5 minutes to 4 minutes (Sadi et al., 2019; Aziz et al., 2018).

Regarding the pharmacist characteristics, role and performance, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p < 0.001$ ). A Tukey post-hoc-test has shown patients have satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.54$ ,  $SD= .827$ ) more than north

( $M=3.16$ ,  $SD=.680$ ) in terms of pharmacist characteristics, role, and performance ( $P<0.001$ ).

General knowledge and performance of pharmacists were significantly associated with PS (Ismail et al., 2020), however, PS towards pharmaceutical services could be low due to many factors especially the lack of specific clinical pharmacists (Hasen and Negeso 2021). All the studies extracted the necessity of continuous training for pharmacists; in addition, pharmacists should develop pharmaceutical services.

Concerning prescription monitoring and screening, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p<0.001$ ). A Tukey post-hoc-test has shown patients have satisfied with pharmaceutical services located in the Middle of Bethlehem city ( $M=3.14$ ,  $SD=.954$ ) more than in North ( $M=2.59$ ,  $SD=.8473$ ) in terms of prescription monitoring and screening ( $p<0.001$ ). Furthermore, patients have satisfied with pharmaceutical services located in the South of Bethlehem city ( $M=3.06$ ,  $SD=.828$ ) than in the North ( $M=2.59$ ,  $SD=.847$ ) in terms of prescription monitoring and screening ( $p<0.001$ ).

The study results conflicted with Alhomoud and his colleagues 2016) study which suggested introducing unique structure strategies to improve the quality of medication and follow the extension of community pharmacists' role in meeting the patients' demands, especially in matters of the explanation for the side effects and adverse reactions. Even though, (Peter et al., 2017) study results consistent with the results of this study.

Regarding the time in the counseling room, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p=0.003$ ). A Tukey post-hoc-test has shown patients have dissatisfied with pharmaceutical services located in the north of Bethlehem city ( $M=2.36$ ,  $SD=1.103$ ) more than middle ( $M=2.81$ ,  $SD=1.204$ ) in terms of time in the counseling room ( $P=0.002$ ).

(Syachroni et al., 2021) showed significant differences in “counseling time” between the insurance types (NHI & Non -NHI), the counseling time with non-NHI patients was less than with NHI patients which revealed that the pharmacist's consultation time was more than 5 minutes, suggesting the importance of allocation of time between physicians’ and pharmacists’.

While dispensing medication and giving instructions, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p=0.012$ ). A Tukey post-hoc-test showed patients satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.27$ ,  $SD=.912$ ) more than north ( $M=2.99$ ,  $SD=.908$ ) in terms of dispensing medication and giving instructions ( $P=0.020$ ).

(Soiero et al., 2017) stated that quality of the dispensing is associated with socio-demographic and health variables. While the main challenge to obtaining the quality of health services is to ensure that the prescription of multiple medications is safe and appropriate in order to translate it through clear written\ labeled instructions.

According to the overall patient satisfaction, a significant difference was found between the geographic location of the primary healthcare pharmacies ( $p<0.001$ ). A Tukey post-hoc-test showed patients satisfied with pharmaceutical services located in the middle of Bethlehem city ( $M=3.24$ ,  $SD=.686$ ) more than in the north ( $M=2.95$ ,  $SD=.590$ ) in terms of overall patients’ satisfaction ( $p<0.001$ ). Furthermore, patients have satisfied with pharmaceutical services located in the south of Bethlehem city ( $M=3.18$ ,  $SD=.656$ ) than in the north ( $M=2.95$ ,  $SD=.590$ ) in terms of overall patient satisfaction ( $p=0.016$ ).

The results agree with the (Khudair & Raza., 2013) study which focuses on pharmaceutical care services in community pharmacies by measuring PS. Since the huge improvements in the last decades, much focus has been given to exploring the reasons behind weaknesses in

health care services provided by community pharmacies, extracting that PS is positively affected by pharmacy location.

**Factors associated with patient's satisfaction toward pharmaceutical care services at the primary healthcare pharmacies:**

The result showed that there is no relationship between overall patient satisfaction and age, monthly income and level of education; in general, socio-demographic characteristics have a different statistical effect on satisfaction in several previous studies.

As this study showed, there is a positive relationship between the number of beneficiaries from the services provided to families ( $r = .177$ ,  $p = <.001$ ) with overall PS, logically, the more significant number of individuals benefiting from health services provided, that indicates there is accessibility and availability to these services, therefore, will affect the PS (Aziz et al., 2018; Radad et al., 2016).

Moreover, a negative relationship between the far of the PHCs pharmacies ( $r = -.14$ ,  $p = .005$ ) with overall PS, contravenes (Khudair & Raza., 2013) study found statistical evidence that patient satisfaction is positively affected by pharmacy location.

## **Conclusion**

The current study is measuring patients' satisfaction resulting from the pharmaceutical care services provided at the MOHPHCs in Bethlehem Governorate. It highlights the factors that significantly affected PS and quantitative measurements of the overall pharmaceutical services provided in MOHPHCs pharmacies by a self-administered statistical tool.

PS was measured by using eight dimensions related to pharmaceutical care services, to identify the gap between the actual services provided and PS.

During the analysis, the results showed PS toward the pharmaceutical care services, further researches should be done on the effects of counseling & waiting time and room, prescription monitoring and screening, and the accessibility to pharmaceutical services.

Statistical evidence shows that PS was no significant difference among some socio-demographic variables like marital status and the number of visits to primary health pharmacies but there are significant differences in place of residence, occupation, and type of health insurance.

The study establishes that the patients are satisfied with general pharmaceutical services, prescription services infrastructure, pharmacist characteristics, role and performance and dispensing medication and giving instructions. Furthermore, dissatisfaction with the time in the waiting room, prescription monitoring and screening, time in the counseling room and the accessibility to pharmaceutical services and pharmacy.

## **Study limitations**

The limitations of this study were:

1. Location limitation: the study was conducted in one governorate (Bethlehem governorate) the patients who were cured in MOH primary health care pharmacies
2. Targeted limitations: the study was conducted at one of primary health care provider, (MOH) only.

3. Time limitation: a cross- sectional study was conducted between January 2022 and March 2022. Each pharmacy was visited for one day to three days, in order to collect the data.
4. Services limitation: this study was conducted at the primary health care pharmacies (level one, two, and three of primary health care).
5. Human limitations: Service recipients (beneficiaries) from the primary healthcare pharmacies of the Ministry of Health
6. Difficulty moving between the pharmacies due to their distance and lack of complete transportation.

### **Strength of the study**

This study could be one of the studies that support the patient oriented model all recent studies call for this type of study which provided a database for those who concern to look over the current situation according the patients perceptions, needs and expectations, consequently will help the decision-makers at the Palestinian ministry of health to develop clear policies and regulations to enhance the quality of pharmaceutical care services and pharmaceutical information services, to improve patient satisfaction and safety, in addition, knew what location of improvement need to work on after knowing the causes and the result.

From the other side, the researcher believes that this study is the first study in Palestine to assess patient satisfaction towards the pharmaceutical care services provided at the MOH-PHCs.

Finally, the study emphasizes the role of pharmaceutical care services provided by primary health level pharmacies in patient satisfaction and keeping them safe. Furthermore, this study suggests solutions that could be applied in the pharmaceutical care services field. The study has a valid and reliable study instrument and could be a good reference and base

for many other researchers. In addition, the study enabled the researchers to have valuable knowledge about patients' needs and expectations towards pharmaceutical care services level, and it helped the decision makers to have an insight into the situation at our primary health level pharmacies.

## **Recommendation**

Based on the study findings, the researcher recommended the following to be taken into consideration:

### **MOH & Decision Makers**

1. The pharmacist must be more proactive in the treatment process and his\her role not limited only to dispensing and registering
2. Providing larger quantities and types of medicines that patients constantly need
3. Enhancing the training for all medical personnel especially the pharmacist in the communication skills
4. Patient satisfaction should be evaluated continuously to ensure PS and the quality of services.
5. Transforming from papered documentation to the computerized system in the PHC centers\clinics in order to reduce waiting time and to facilitate communication between pharmacists and other health providers.
6. Infrastructure development at the primary healthcare pharmacies including the waiting & counseling rooms and the presence of high stairs, which hinders the movement of old, pregnant patients.

### **Society and Patients**

1. Raising consumers' awareness about their rights to get optimal health care and the rational use of medication.

### **Other Researchers**

- 1- To conduct the future research studies included all the primary healthcare providers (MMS, UNRWA, PMRS and MOH), because this study was conducted at Palestinian (MOH) centers only.

- 2- To conduct the future researches in more than one Governorate, preferably a comparison should be done to produce an overall data in order to provide the decision maker with detailed information, to allow the generalization of the results.

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## Appendixes

**Appendix 1:** The location of PHC centers in Bethlehem and pharmacy working days per week.

	The PHC pharmacies	Pharmacy working days per week	Location
1	Beit- Jala	Sunday, Tuesday, Thursday	North
2	Al-Masarah	Sunday	South
3	Jorat Alshamma	Monday, Thursday	South
4	Nahalin	Sunday, Monday, Tuesday, Wednesday, Thursday	Middle
5	Wad Fokyn	Sunday, Tuesday	Middle
6	Beit Sahour	Sunday, Monday, Tuesday, Wednesday, Thursday	North
7	Ubeidya	Sunday, Monday, Tuesday, Wednesday, Thursday	North
8	Dar Salah	Monday, Wednesday	North
9	Bethlehem	Sunday, Monday, Tuesday, Wednesday, Thursday	North
10	Al-Khader	Sunday, Monday, Tuesday, Wednesday, Thursday	Middle
11	Beit fajar	Sunday, Monday, Tuesday, Wednesday, Thursday	South
12	Tuqu'	Sunday, Monday, Tuesday, Wednesday, Thursday	South
13	Husan	Sunday, Tuesday, Thursday	North
14	Zatara	Sunday, Tuesday, Thursday	Middle
15	Al-Shawawrah	Tuesday, Thursday	Middle
16	Harmalah	Sunday, Wednesday	Middle
17	Battir	Monday, Wednesday	North
18	Marah Rabah	Sunday, Wednesday	South
19	Wad Alnis	Tuesday	South
20	Al- Walaja	Monday, Wednesday	North

**Appendix 2:** Distribution of the MOH centers in Bethlehem city and the number of beneficiaries

#	MOH PHC Pharmacy	Number of beneficiaries	The sample
1-	Beit Jala city	4157	13
2-	Al-Masarah village	1107	5
3-	Jorat al-Sham'a village	1274	5
4-	village Nahalin	7774	25
5-	Wadi Fukin village	1808	6
6-	Beit Sahour city	6773	23
7-	town Ubeidiya	12097	38
8-	Salah Dar	2507	8
9-	Bethlehem\ central city	32645	103
10-	Al-Khader town	7664	24
11-	Bayt Fajar town	13000	41
12-	town Tuqu'	8581	27
13-	town Husan	5287	17
14-	town Za'tara	6846	22
15-	Ash-Shawawra village	2776	9
16-	Harmala village	2701	9
17-	Battir village	2107	7
18-	Marah Rabah village	1558	6
19-	Wad Alniys	906	6
20-	Al-Walaja town	650	6
		<b>Total =122218</b>	<b>Total=400</b>

**Appendix 3:** MOH permission, to distribute the questionnaire in its pharmacies and collect the data.

State of Palestine  
Ministry of Health  
Education in Health and Scientific  
Research Unit

دولة فلسطين  
وزارة الصحة  
وحدة التعليم العلمي  
والمبحث العلمي

Ref.: .....  
Date: .....

رقم: ١٥٤/٢٠٢٢  
تاريخ: ١٤/١٢/٢٠٢٢

خطوة الوكيل المساعد لشؤون الصحة العامة وصحة الأسرة المعتمدين...  
تعميم وإعتماد...

الموضوع: تمديد مهمة بحث

مرافق طلب تمديد مهمة الطالبة: شيرين جابر إبراهيم حويلي - ماجستير سياسات إدارة  
صحية/ جامعة القدس، وبالتوافق د. مها التوتالي، في عمل بحث علمي بعنوان:  
"مدى رضا المرضى حول الخدمات الصيدلانية المقدمة في صيغيات الرعاية الصحية الأولية في  
بيت لحم".  
من خلال السماح للطالبة بجمع معلومات من المرضى (بعد موافقتهم)، وذلك في  
مراكز الرعاية الصحية الأولية في محافظة بيت لحم.

على أن يتم الالتزام بالسياسات والإجراءات البحث العلمي.  
على أن يتم الالتزام بجميع تعليمات وإجراءات الوقاية والسلامة الصادرة عن وزارة الصحة بخصوص  
جائحة كورونا، وتحت مظلة المسؤولية، وإقرار شهادة التغطية قبل دخول مرافق وزارة الصحة.  
على أن يتم تزويد الوزارة بنسخة PDF من نتائج البحث، واتخاذ بعدم النشر لمبدأين المضمنين على موافقة  
الوزارة على نتائج البحث.

موقعه/ها:

رئيس وحدة التعليم والبحث العلمي

نسخة: الصيد كلية الصحة العامة المعتمدين/ جامعة القدس

الرجاء تحليل  
مهمة الباحثة

١٥/١٢/٢٠٢٢

## Appendix 4: The questionnaire



Dear participant, this questionnaire is about patients' satisfaction towards the pharmaceutical services provided at the primary healthcare pharmacies in Bethlehem. This study aims to identify your perceptions and opinions toward the pharmaceutical services provided in these centers, the importance of this study is to identify the level of patient satisfaction with the quality of these services .

The questionnaire consists of two parts of data and questions related to the pharmaceutical services provided. So please highlight or circle your answers, it takes 10 to 15 minutes to answer this questionnaire. To fill out this questionnaire please give us your own perception of the pharmacy department and the services provided by this department based on your experience.

Finally, we would like to note that the participant is voluntary and full confidentiality about the identity of the participant who fills it. We would like also to inform you that neither the administration of the institution nor the researchers will be able to know the identity of the participants of this study; moreover, the information will be processed in general, not in a private. Please fill out the questionnaire and return it back to the data collector.

We thank you for your kind cooperation

---

Student: shireen jabber alhoubani, master degree of policies and health management, phone: 0597999474

Supervisor: Dr. Maha Al-Nubani  
School of Public Health  
Al-Quds University\ Abu Dis.

## **Part one:**

**Personal information, please circle or fill the blank for the following questions:**

1. Gender:      a. male                      b. female
  
2. Age: \_\_\_\_\_ years
  
3. Number of beneficiaries who are receiving the pharmaceutical services provided from the same family: \_\_\_\_\_person
  
4. Marital status:  
  
    a. Single    b. married    c. widowed    d. divorced    e. separated
  
5. Total income:  
  
    a. Less than 1000  
  
    b. 1001-2000  
  
    c. 2001-3000  
  
    d. 3001-4000  
  
    e. 4001 and more
  
6. Educational level:  
  
    a. Illiterate    b. primary    c. secondary    d. diploma    e. bachelor    d. masters and more
  
7. Living area:  
  
    a. Camp    b. village    c. city
  
8. The far of the pharmacy from your residential place :  
  
    a. Near    b. moderate    c. far
  
9. Professional background: a. medical \health    b. none. medical \health    c. unemployed
  
10. Number of visits:  
  
    a. First time    b. weekly    c. monthly    d. necessity    e. others
  
11. Health insurance do you have ( you can choose more than one option):  
  
    a. Governmental    b. private    c. UNRAW    d. other (determine)\_\_\_\_\_

## Part two:

Please, choose the extent of your consent and satisfaction with the following sentences related to the pharmaceutical care services provided in primary healthcare pharmacies:

No.	Questions	Strongly disagree	disagree	Neutral	Agree	Strongly agree
<b>General Pharmaceutical Services</b>						
1	Are you satisfied with the provided pharmaceutical services?					
2	Are you satisfied with the operational hours of the pharmacy?					
3	Are you satisfied with the weekly vacation?					
4	Are you satisfied with the quality of dispensed medicine?					
5	Are you satisfied with the availability of medicines and health appliances you need?					
6	Are you satisfied with the tidiness of the pharmacy?					
7	Are you satisfied with medicine storage?					
8	Are you satisfied with the availability of your medical record in the pharmacy?					
9	The pharmacist registers the dispensed medicines to me in my medical record?					
<b>Prescription Services Infrastructure</b>						
10	I'm satisfied with writing my name and age in the prescription					
11	I'm satisfied with the availability of the name of the clinic from which the prescription was dispensed from					
12	I'm satisfied with the commitment to writing the date of dispensed prescription					
<b>Pharmacist Characteristics ,Role and Performance</b>						
13	The pharmacist treats me in a tactful and polite manner					
14	The number of pharmacists is sufficient in the pharmacy					
15	I'm satisfied with the pharmacist's performance					
16	I was given information about how to use the medicine					
17	The pharmacist listens interestedly to my inquiries					
18	The pharmacist accepts my repeated requests for					

	medical advice patiently					
19	I have been provided with the appropriate nutritional advice commensurate with the medicines that have been dispensed to me					
20	I have been provided with information about the proper method to store medicine in the home					
21	I have been asked about my health status					
22	The pharmacist made sure my understanding of how to use the medicine in an appropriate way					
<b>The Time in Waiting Room</b>						
23	I'm satisfied with the availability of a waiting room					
24	The place is suitable and comfortable					
25	I'm satisfied with the availability of sufficient seats in it					
26	I'm satisfied with the waiting time for medicine dispensing					
<b>Prescription Monitoring and Screening</b>						
27	The pharmacist checked the availability of prescribed medication					
28	The pharmacist made sure of the appropriate prescribed dose and dosage form					
29	The pharmacist dispensed a sufficient amount of medication to complete the treatment period					
30	Pharmacists conduct prescription screening to prevent duplication of medications in prescription					
31	Pharmacists conduct prescription screening to determine potential or actual drug interactions in the prescription					
32	The pharmacist opened my medical record to verify for any drug interaction with the previously dispensed medicines					
33	The pharmacist asked me about any drug allergy history					
34	The pharmacist told me about any potential side effects					
35	If there is a problem with the prescription, the pharmacist					

	calls\communicates with the treating physician					
36	the pharmacist communicates with me by telephone to follow up on my health status to register notes in my medical record					
<b>The time in Counseling Room</b>						
37	I'm satisfied with the availability of a counseling room and a responsible pharmacist to provide medication advice					
38	I'm satisfied with the counseling time					
39	I'm satisfied with the respect for privacy during the medication counseling					
<b>Dispensing Medication and Giving Instructions</b>						
40	I'm satisfied with the suitability of the special place for dispensing the medicine (the counter and the glass window) in terms of the patient's height and hearing strength					
41	I'm satisfied with the method of medication dispensing					
42	I'm satisfied with the preparation of the suspension					
43	The method of using the medicine is written clearly					
<b>The Accessibility to the Pharmaceutical Services and Pharmacy</b>						
44	The location of the pharmacy is suitable for me					
45	Availability of near public transportation					
46	Private parking is available					
47	Signage is available to determine the location of the pharmacy clearly					
48	A private phone number for the pharmacy is available to facilitate the inquiries					

**And thank you**



جامعة القدس  
Al-Quds University

عزيزي المشارك هذا الاستبيان يدور حول مدى رضا المرضى عن الخدمات الصيدلانية المقدمة في صيدليات الرعاية الصحية الأولية.

وتهدف هذه الدراسة الى التعرف على ارائكم وتوجهات نظركم حول الخدمات الصيدلانية المقدمة في مراكز الرعاية الصحية في بيت لحم. اهمية هذه الدراسة التعرف على مستوى رضا المرضى عن جودة هذه الخدمات.

تحتوي هذه الاستبانة على قسمين من البيانات و الاسئلة ذات العلاقة بالخدمات الصيدلانية المقدمة. ارجو التظليل او وضع دائرة بما يناسبكم من الاجابات. تستغرق اجابة هذه الاستبانة من 10 - 15 دقيقة. ولتعبئة هذه الاستبانة نرجو اعطاء وجهة نظرك الخاصة حول قسم الصيدلة والخدمات التي يقدمها هذا القسم بناءا على تجربتك.

وأخيرا، نود أن ننوه أن المشاركة في هذه الدراسة طوعية وأن السرية التامة حول هوية الشخص الذي قام بتعبئة الاستبانة مضمونة فيه، كذلك نود إعلامكم بأنه لن يكون بمقدور إدارة المؤسسة أو الباحثون معرفة هوية المشاركين في الدراسة، وسيتم معالجة المعلومات بشكل عام وليس بشكل خاص  
الرجاء إتمام الاستبانة وإعادتها لجامع البيانات.

ونشكر لكم حسن تعاونكم.

---

الطالبة: شيرين الحوباني، ماجستير سياسات في الادارة الصحية، جوال: 0597999474

الدكتورة المشرفة : د. مها النوباني

كلية الصحة العامة

جامعة القدس/أبو ديس

## القسم الاول :

البيانات الشخصية, الرجاء وضع دائرة حول الإجابة أو ملء الفراغ للأسئلة التالية:

1- الجنس: أ. ذكر ب. أنثى

2-العمر: \_\_\_\_\_ سنة

3- عدد المستفيدين من الخدمات الصيدلانية المقدمة من الاسرة الواحدة: \_\_\_\_\_ شخص

4-الحالة الاجتماعية:

أ. أعزب/ة ب. متزوج /ة ج. ارمل/ة د. مطلق/ة هـ. منفصل/ة

5-الدخل الإجمالي:

أ. أدنى من 1000 ب. 1001-2000 ج. 2001-3000 د. 3001-4000 هـ. فأكثر 4001

6-المستوى التعليمي :

أ.غير متعلم/ة ب. ابتدائي ج. ثانوي د.دبلوم هـ.بكالوريوس و.ماجستير فاعلى

7- مكان السكن: أ. مخيم ب. قرية ج. مدينة

8- ما مدى بعد الصيدلية عن مكان سكنك: أ.قريبة ب. متوسطة ج. بعيدة

9-المهنة : أ. بالمجال الطبي ب. المجال غير الطبي ج. عاطل عن العمل

10-عدد الزيارات للصيدلية :

أ. اول زيارة ب. زيارة اسبوعية ج. زيارة شهرية د. عند الحاجة هـ.غير ذلك

11- ما التأمينات الصحية التي بحوزتك (يمكنك اختيار اكثر من خيار):

أ.حكومي ب. خاص ج. وكالة د. غير ذلك (حدد) \_\_\_\_\_

## القسم الثاني:

الرجاء ان تختار مدى موافقتك ورضاك عن الجمل التالية فيما يتعلق بالخدمات الصيدلانية المقدمة في صيدلية هذا المركز:

الرقم	السؤال	غير راض بشدة	غير راض	محايد	راض	راض بشدة
الخدمات الصيدلانية العامة						
-1	انا راض عن الخدمات الصيدلانية المقدمة					
-2	انا راض عن ساعات عمل الصيدلية					
-3	انا راض عن العطلة الاسبوعية					
-4	انا راض عن جودة الادوية التي تصرف					
-5	انا راض عن توفر الادوية او الاجهزة الصحية التي احتاجها					
-6	انا راض عن نظافة الصيدلية					
-7	انا راض عن تخزين الأدوية بالصيدلية					
-8	انا راض عن توفر سجل طبي خاص بي في الصيدلية					
-9	يقوم الصيدلاني بتسجيل الادوية التي صرفت لي بالسجل الطبي الخاص بي					
خدمات بيانات الوصفة						
-10	انا راض عن ادراج عمري واسمي في الوصفة الطبية					
-11	انا راض عن توفر اسم العيادة التي تم صرف الوصفة منها					
-12	انا راض عن الالتزام بكتابة تاريخ صرف الوصفة					
مهام الصيدلاني/ة وأدائه/ها						
-13	تعامل الصيدلاني/ة بطريقة لبقة ومهذبة					
-14	عدد الصيادلة المتواجدين في الصيدلية كاف					
-15	انا راض عن اداء الصيدلاني/ة					
-16	تم اعطائي معلومات حول كيفية استخدام الدواء					
-17	استمع الصيدلاني/ة لاستفساراتي باهتمام					
-18	تقبل الصيدلاني تكراري لطلب النصيحة الطبية بصبر					
-19	تم تزويدي بالنصائح الغذائية الملزمة لما صرف لي من ادوية					
-20	تم تزويدي بالارشادات حول كيفية تخزين الدواء في المنزل					
-21	تم سؤالي عن حالتي الصحية					
-22	تاكد الصيدلاني من فهمي للكيفية الصحيحة لاستخدام الدواء					
الوقت في غرفة الانتظار						
-23	انا راض عن توفر مكان مخصص للانتظار					

-24-	المكان مريح ومناسب				
-25-	انا راضٍ عن توفر مقاعد كافية فيه				
-26-	انا راضٍ عن وقت الانتظار لصرف الدواء				
المتابعة الانية لمحتويات الوصفة وتتبع صرف الدواء :					
-27-	قام الصيدلاني بالتحقق من توفر الدواء الموصوف لي				
-28-	تحقق الصيدلاني من الشكل والجرعة الدوائية الملائمة لي				
-29-	قام الصيدلاني بصرف الكمية الكافية من الدواء لاستكمال مدة العلاج				
-30-	قام الصيدلاني بفحص الوصفة لمنع الازدواجية الدوائية				
-31-	قام الصيدلاني بفحص التداخلات الدوائية المحتملة في الوصفة				
-32-	قام الصيدلاني بفتح السجل الطبي الخاص بي للتأكد من اي تداخل مع الادوية المصروفة سابقا				
-33-	سألني الصيدلاني عن وجود اي حساسية لدي من اي نوع من انواع الادوية				
-34-	اخبرني الصيدلاني عن اي اعراض جانبية محتملة للدواء				
-35-	عند وجود مشكلة بالوصفة الطبية يقوم الصيدلاني بالاتصال بالطبيب المعالج				
-36-	تواصل الصيدلاني معي لمتابعة علاجي الدوائي لتدوين الملاحظات في السجل				
الوقت في غرفة الاستشارة					
-37-	انا راضٍ عن توفر غرفة خاصة وصيدلاني مسؤول لتقديم المشورة الدوائية				
-38-	انا راضٍ عن وقت الاستشارة الطبية اثناء الصرف				
-39-	انا راضٍ عن توفر الخصوصية اثناء الاستشارة الطبية				
صرف الدواء واعطاء الارشادات					
-40-	انا راضٍ عن ملائمة المكان الخاص لصرف الدواء (الكاونتر والشباك الزجاجي) من حيث طول المرضى وقوة سمعهم				
-41-	انا راضٍ عن طريقة صرف الدواء				
-42-	انا راضٍ عن تجهيز الصيدلاني/ة للدواء الذي يحتاج الى مزج بالماء				
-43-	طريقة اخذ الدواء مكتوبة يدويا بشكل واضح ومقروء				
الوصول الى الخدمات الصيدلانية والتواصل مع الصيدلية					
-44-	موقع الصيدلية مناسب لي				
-45-	تتوفر مواصلات عامة قريبة				
-46-	يتوفر موقف خاص للسيارات				

					توفر لافتات تحدد مكان الصيدلية بدقة	-47
					يتوفر رقم هاتف خاص بالصيدلية لتسهيل الاستفسارات الدوائية	-48

وشكرا

## Appendix 5: REC permission, موافقة لجنة الدراسات العليا

Al-Quds University  
Jerusalem  
School of Public Health



جامعة القدس  
القدس  
كلية الصحة العامة

التاريخ: 2021/12/13  
المرجع:

عزيزتي الطالبة شيرين الحوياتي المحترمة  
برنامج: السياسات والإدارة الصحية

### الموضوع: موافقة لجنة أخلاقيات البحث العلمي

قامت اللجنة الفرعية لأخلاقيات البحث التابعة لكلية الصحة العامة بمراجعة مشروع الرسالة بعنوان:

**"Assessment of Patient Satisfaction toward the Pharmaceutical Care  
Services provided by Primary Health Level Pharmacies in Bethlehem  
Governorate".**

المقدم من (مشرف الرسالة) د. مهي النوياني

يعتبر مشروعك مستوفياً لمتطلبات أخلاقيات البحث في جامعة القدس.

نتمنى لكم كل التوفيق في تسير المشروع.

رئيسة لجنة أخلاقيات البحث



د. نهى الشريف

نسخة/ أعضاء لجنة البحث

نسخة/ الملف