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Assessment of Patient's Satisfaction with Pharmaceutical Care Services in Community Pharmacies in west bank: A cross sectional study

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Assessment of Patient's Satisfaction with Pharmaceutical Care Services in Community Pharmacies in west bank: A cross sectional study.

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Dedication:

I dedicate my master's thesis to my family in appreciation of the kind support they have given me throughout my life, especially throughout the master's program. Their unwavering support and prayers have given me the opportunity to finish this thesis.

Deceleration

I Certify that this thesis is submitted to 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.

Singed……. 

Sujood Theab Nemer Mashaala

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Abstract

Background and Objectives:

The provision of pharmaceutical services to the community and the care of patients are significant responsibilities of pharmacists. It is unclear if the general public completely understands the important role that pharmacists play in the healthcare system. This study aim was to examine general public perception about community pharmacy services, and how satisfied they are with pharmaceutical care services utilizing the health beliefs model (HBM).

Methods

A cross-sectional study was carried out on a randomly chosen sample population (n = 400) in West Bank from January through June 2022 for a period of six months. A standardized, self-administered questionnaire with 35 items was used to gather information on the respondents' demographics and satisfaction with pharmacy services utilizing (HBM).

Results: The response rate of the survey was 87%. The majority of the respondents perceived benefit of utilizing pharmaceutical care services with mean score (24.5 ± 4.6). There was a significant differences between mean perceived benefit and perceived barriers (24.5 vs. 17.5, $p < 0.05$). Participants generally did not express a high level of agreement on the four susceptibility-assessing items (mean = 11.55 ± 2.44, range 4-20). However, the four questions measuring perceived severity had better agreement (mean = 13.3 ± 3.0, range 4-20). The participants express modest satisfaction with pharmaceutical services and managing therapy, the mean (± SD) score on the satisfaction scale was (24.1±7.1, range 10 - 50). The items regarding lack of privacy and explain side effects of drugs had the highest dissatisfaction percentages (91% and 55%, respectively). Multiple linear regression demonstrated four variables to be significantly correlated with satisfaction with pharmaceutical care services included perceived susceptibility ($\beta = .157$, $p = .002$), residency ($\beta = -.203$, $p = 0.001$), number of medications ($\beta = -.237$, $p = .001$), and perceived barriers ($\beta = -.132$, $p = .012$). Indicating, that participants with higher number of medication and those perceived susceptibility were more satisfied and those perceived barriers were less satisfied with pharmaceutical care provided by community pharmacies.

Conclusion: The majority of the participants express modest satisfaction with pharmaceutical care services. The community pharmacists in ideal position to and have the

ability to improve the benefit patients perceive by providing comprehensive pharmaceutical care services and managing medication therapy.

List of Abbreviations

FIP	The International Pharmaceutical Federation
PC	Pharmaceutical care
WHO	World Health Organization
OTC	Over the counter
HBM	The Health Belief Model
UAE	United Arab Emirates
SD	Strongly Disagree
D	Disagree
Neither	Neither Agree or disagree Agree
SA	Strongly Agree
E	Excellent
V.g	Very good
G	Good
F	Fair
P	Poor
SD	Standard Deviation

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Chapter One

1.1 Introduction:

Historically, the pharmacist's primary responsibility has been to prepare and dispense medications, with limited focus on patient services(1). It was modified when Helper and Strand raised the idea of pharmaceutical care in 1990(2). Pharmaceutical care is patient-centric and results-centric. Pharmacists need to work directly with patients to promote health, cure illnesses, and regulate the use of medicines to ensure their safety and efficacy(2).

Satisfaction is achieved when patients have a positive and pleasing perception of the quality of care and service they receive in their healthcare facility, and when their needs are met. A satisfied patient will strongly advise the center's services to others. A satisfied patient may exhibit his or her fulfillment to four or five people, whereas a dissatisfied patient will complain to at least twenty people(3).

Patient satisfaction is a vital aspect of healthcare service quality(4, 5). It is possible to increase the use of medical services and, ultimately, enhance patient outcomes and quality of life by implementing communication skills, convenience, and prudent drug usage. Patient satisfaction promotes healthy habits, such as adherence and provider continuity(6). Patients are more likely to take medications responsibly and are less inclined to transfer healthcare providers if they are satisfied with their pharmacist's overall care (7). Some patients place a high importance on their provider's socio-psychological and communicative strength (8).

Patient satisfaction depends on "an individual's subjective view of the treatment provided." Consequently, the relationship with the healthcare provider as well as platform aspects (equipment and pharmaceuticals) and their manifestations in the health-disease process may be described by the level of satisfaction or discontent with the health service.

Patient satisfaction lacks a precise definition. As a result of varying childhood experiences and life events, satisfaction is frequently defined differently by different individuals(9). Patients' expectations of their health care are frequently cited as a key factor in whether or not they are satisfied with their health care. Many patients enter the health care system with varying features, attitudes, and previous experience. As a result of their previous use of the services, they will have a better understanding of their health care requirements(10). On the other hand, believe that patient satisfaction is a more complicated problem that is influenced by a variety of factors, including individual goals, previous knowledge with health care services, sociopolitical ideologies underlying the recent health care system, and patients' conceptions of health.

The International Pharmaceutical Federation (FIP) defined pharmaceutical care (PC) as the "responsible provision of pharmacotherapy to accomplish specified goals that enhance or protect a patient's quality of life (11, 12)" in 1998. A pharmacist and patient are working together to avoid, identify, and resolve any drug- and health-related problems. This is meant to enhance patients' quality of life (13).

The community pharmacist is essential in providing pharmaceutical care, such as counseling patients and teaching them on correct medication administration, dosing, side effects, storage, and interactions with other medications and foods.

It also illustrates the disparity between patient perception and expected service quality. Evaluating patient satisfaction is a method for detecting and monitoring changes in patient demands, and the findings may be used to perform program evaluations for improved services and enhance the professional capability of pharmacies(11, 12).

Pharmacist interventions, commonly referred to as pharmaceutical care plans, are techniques for addressing problems with drug therapy that have been discovered via pharmaceutical care. The results of a pharmacist's processes are the accomplishments. Patient satisfaction is a term used to describe how happy, content, or satisfied a patient feels about the care they have gotten. Patient satisfaction with healthcare is a good indicator of the level of patient-centered quality. Its evaluation can help determine the effectiveness of health service delivery, identify patients who need extra care or specific interventions, and forecast treatment outcomes and adherence(13).

Before a pharmacist can successfully provide medication counseling, the patient must be informed about their involvement and regard the involvement as beneficial to their health. Many individuals believe that the function of drug counseling is mainly a physician's due to their previous knowledge(14).

Assessment of policies and programs is vital in public health because it promotes a healthier society and prevents the waste of time and resources on ineffective programs.

Health services are thought to have a goal of achieving patient satisfaction; as a result, research should be done to include system improvements connected to patient happiness.

In order to satisfy the demands of the modern healthcare environment, pharmacists must first establish favorable relationships with patients through more traditional counseling duties, such as pharmaceutical counseling.(15, 16).

Modern healthcare services and delivery systems are designed and evaluated in industrialized nations mostly based on patient-reported outcomes and satisfaction. Patients' satisfaction with medication therapy and drug therapy coupled with behavioral training have been linked and predicted in these nations via research, which has been utilized to adapt therapies to better meet the needs of patients(13).

1.2 Transition in pharmacy practice model:

Over the last three decades, the practice of community pharmacy has evolved. In 1988, the WHO gathered consultative experts to examine pharmacists' achievements and responsibilities to the health sector. The meeting report addressed the duties of community pharmacists, recognizing that their primary responsibilities involve the distribution of prescribed medication and over-the-counter medications. Nonetheless, while providing this essential service, community pharmacists have extra chances to provide guidance to enhance the correct use of medications and other health information.

Hepler and Strand created the term "pharmaceutical care" in 1990, This word was eventually recognized as an important expansion of pharmacists' roles. Pharmaceutical care is a multimodal intervention focused on the patient with the goal of optimizing the efficacy of medicinal treatment. In pharmaceutical care, pharmacists are responsible for identifying, resolving, and preventing current and prospective drug-related issues(17).

In 2006, the WHO and the FIP collaborated to develop a new guideline for pharmacy practice that encouraged pharmacists everywhere to respond to the task of promoting rational drug use and advancing the pharmacy profession globally. Thus, the paradigm in the pharmacy profession has evolved from traditional medication supplier (an concentration on products) to service provider (patient-centered and population-based care), the latter being regarded more valuable to public health.

1.3 Patient Perception of Barriers Associated with Counseling:

The research identifies numerous difficulties that patients have cited as barriers to accessing counseling services from their pharmacist. There may be both personal and social obstacles preventing a patient from seeking counseling from a pharmacist(18).

While many of these patients requested information, they cited a number of common obstacles. These patients were asked why some individuals chose not to approach pharmacists about medications. Fear or shame, the patient's lack of willingness, the patient's perception of little need or lack of concerns, or the patient's limited time were noted as personal obstacles. Patients cited the following reasons for not approaching the pharmacist: perceived as inaccessible, not viewed as a reliable resource, lack of confidence in their abilities, greater trust in the physician to provide information, the patient does not know why, written information is sufficient, and constraints (i.e. a lack of privacy). Together with "role uncertainty" concerns, these obstacles add to the difficulties connected with the implementation of community pharmacist-provided counseling services (19).

1.4 Utilization of Medication Counseling in Community Pharmacy:

In order to provide counseling, a community pharmacy must overcome both patient and provider obstacles, which hinders the pharmacists' capability to provide these services.

As pharmacy practice has undergone revolutions, patient participation in these services has evolved. As previously said, however, there is still uncertainty over the pharmacist's duties, which leads to obstacles and, eventually, undervaluation in the relationship.

Additionally, new community pharmacy approaches have affected patient perception. Although there is a positive view of community pharmacies among various Medicare patient populations, counseling services are underutilized due to insurance diversity and the emergence of mail-order pharmacies(19). This does not establish a perception

conducive to a successful patient-pharmacist connection. There are knowledge gaps among patients regarding regarding the significance of pharmacists within the healthcare profession, and there are contrasting perspectives regarding the significance of individual counselling process to enhance medication use(20, 21).

1.5 Pharmacy public health services:

Pharmaceutical activities were categorized, excluding drug distribution and dispensing duties, into three levels:

- Individual patient level corresponds to the pharmaceutical care and clinical pharmacy services offered by pharmacists that may have an effect on the health of the population.
- Institutional level (hospital, health organization, pharmacy) involves actions such as establishing treatment recommendations and formulating drug formularies. Generally, Drug and Therapeutics Committees or National Essential Medicines Committees manage these tasks.
- National and local authority level involves actions comprising policy planning, legislation, and regulation, such as determining which pharmaceutical services should be offered in community pharmacies.
- Community and population level relates to interventions related to public health, such as health promotion, disease prevention, and lifestyle counseling.

1.6 Pharmacists' Role in Over-the-counter Drug Use:

On the market for over-the-counter (OTC) drugs today, there is a broad selection of medications with different active components, a variety of trademarks, and their line extensions. Pharmaceutical organizations utilize promotion as one of their marketing techniques to present their products to market. These campaigns are defined by persuasion and extortion on the part of the companies whose products are being advertised. It can be difficult and complicated for individuals to make good judgments regarding OTC drugs(22).

One of the medical specialists who may assist consumers in selecting the best over-the-counter medications is the pharmacist. Since pharmacists are frequently present at the point

of sale, they may help customers choose the right OTC products, help them understand specific health information, and, if necessary, refer the customer to a physician.(22).

Pharmacists play a critical part as self-care experts in modern culture. They therefore frequently contact with patients who require health information, provide guidance, and counsel patients regarding over-the-counter (OTC) medication (23, 24).

As consumer advocates in areas pertaining to health care, They aid patients in making decisions about OTC products, their dosages, and their forms so that the patient's condition can be successfully and safely treated (24).

Community pharmacists play a crucial role in assisting patients with the maintenance of healthy skin. From lowering sun exposure risk by recommending proper sunscreens to counseling patients on the use of over-the-counter acne medicines, pharmacists are frequently the first line of defense for our largest organ. Pharmacists are in an ideal position to advise patients on the significance of proper skin care. Community pharmacists must be knowledgeable about skin problems and cancer risks in order to provide preventive and early-stage therapy for their patients. Educating patients can also help them prepare for significant or cosmetic side effects such as rash, itching, redness, and pigmentation.

Pharmacists have been monitoring patient conditions, such as measuring blood pressure, for many years.

Among the pharmacy services that may be supported by actual proof are smoking cessation, lipid management, diabetes, emergency contraception, influenza vaccination, and treatment for drug misusers. In addition, cardiovascular disease and hypertension-related services were provided. Also pharmacists provide OTC treatments for weight management, healthy eating and lifestyle advice, sexual health, folic acid promotion, and osteoporosis/falls prevention(25).

1.7 Community Pharmacists in Palestine:

Presently, the West Bank of Palestine has 3,217 registered pharmacists and 875 pharmacies. The great majority of these pharmacists are employed in the private sector, specifically in community pharmacies(26).

The public believes that pharmacy is a commercial and business-oriented profession because there is little interaction between pharmacists and patients. Except for regulated narcotics and strong tranquilizers (e.g. benzodiazepines). All medications can be purchased without a prescription. In addition, natural goods, particularly herbs, are widely used as a source of medicine, as is the case in other Mediterranean regions(27).

In Palestine, private pharmacies rarely preserve patient medication records, because they are not obligated to do so by law. On addition, private pharmacies in the West Bank rarely use t Given the intense competition between local and imported drugs, In the pharmaceutical industry, the majority of pharmacists work in marketing and promotion. In Palestine, there are no clinical pharmaceutical services. The new doctor of pharmacy (PharmD) program in the nation, which focuses on patient care, aims to produce graduates who can provide patients with superior pharmaceutical and clinical care and improve the prestige of the pharmacy profession. the bulk of drugs are distributed manually and use technology for patient care.

Palestinian national universities produce the vast majority of graduated pharmacists in Palestine, who do not receive any professional development or ongoing pharmacy education. In Palestine, a community pharmacy's main job is to fill prescriptions, and most medications, including antibiotics, are sold over the counter. Self-medication is widespread in Palestine, and community pharmacists are the go-to medical professionals for the majority of individuals seeking treatment for minor ailments or medical advice(28-30).

Community pharmacists have a huge responsibility to improve drug usage and improve the health of the people in their society.

They need to be well-rounded in all facets of pharmaceutical care and possess exceptional medical expertise to accomplish this goal.

The majority of pharmacists in Palestine say they are not performing their duties adequately. Community pharmacists' major concern is dispensing medicines. Community pharmacists have a favorable outlook on pharmaceutical care and continued education. They have demonstrated an intention to integrate pharmaceutical care practice but have cited a number of practical obstacles. Patients' and prescribers' lack of co-operation constituted the primary obstacles(31).

The community should be fully informed of the pharmacist's function and level of knowledge and experience. This may assist in increasing patient expectations for prescription drug services. Additionally, it demonstrates that customers are open to using additional pharmacy services like blood pressure monitoring. Pharmacists need to improve how they come across as medical specialists. Educators and professional organizations in the Palestinian territories should take the lead in implementing a continuous education program so that the curricula of the various courses can be adjusted to the continuously changing requirements of pharmacy practice. In order to increase customer satisfaction with these elements, it is necessary to take greater privacy and secrecy into account while making suggestions(32).

1.8 The Health Belief Model:

To better understand the factors influencing patients' or consumers' choices, a number of theories have been created that incorporate many facets of individual perception. Patient-provider interactions have frequently been described using models based on patient-centered communication and customer service interactions. Numerous health-related decisions are influenced by perceptions.

The Health Belief Model (HBM) predicts why individuals will take precautions to minimize, monitor for, or manage illness issues. Since 1950, this model has been utilized in health behavior research to describe both the modification and maintenance of health-related behaviors(33). According to the HBM, individual beliefs or perceptions about a disease and the methods available to delay its development influence health behavior. Four perceptions make up the model: perceived severity, perceived susceptibility, perceived benefits, and perceived barriers. Any of these viewpoints can be used alone or in combination to explain health behavior. Action cues, motivational variables, and self-efficacy are some of the most recent additions to the HBM.

The Health Belief Model (HBM) has been used by individuals to discuss their motivations for taking action to prevent, detect, or manage medical issues. The model's six components are perceived susceptibility, severity, benefits, obstacles, cues to action, and self-efficacy. According to the hypothesis, if someone believes they are susceptible to a disease, that the potential consequences are serious, and that taking action will benefit them more than it

will harm them, they are more likely to take actions that they feel will lower their risks. (35).

The concept of "perceived severity" refers to a person's perception of the seriousness or severity of a medical condition or conditional illness. It is based on a person's perceptions of what a disease might entail or how it will affect their lives(34).

One of the perceptions that has the greatest influence on motivating better behavior is perceived susceptibility. The likelihood of engaging in risk-reducing behavior increases with perceived risk.(34).

Perceived benefits is the idea of perceived advantages refers to a person's estimation of the value or utility of a novel activity in lowering the risk of contracting a disease. (34).

Perceived barriers is An individual's judgment of the barriers that stand in the way of adopting a new behavior. This factor is regarded as the most influential in affecting behavior change. Other elements, such as culture, amount of education, past experiences, skill, and drive, influence the four major structures of perception. These factors influence individual perspectives. The HBM implies that in addition to the four beliefs or perceptions and changing circumstances, cues to action also have an effect on behavior. Cues, people, or things that nudge people to alter their behavior are known as cues to action. Self-efficacy, the belief in one's own capability to perform, was added in 1998. These structures contribute to the assessment of a person's likelihood of following preventative health measures. The HBM is restricted because it disregards the emotional aspect of behavior, such as the provider-patient connection or concern of therapy. A common omission from the HBM is the concept Cue to Action, which can encompass diverse stimuli, such as a doctor's recommendation or an advertising. This concept has been found to have the greatest impact on relationships where possible threat and reward are both strong and barriers are low (33).

Social Exchange Theory was used to analyze personal and social components of the pharmacist-patient interaction in order to determine how perceptions influence the quality of the relationship and adoption of counseling services. This utilizes a constructivist approach to describe social change as an exchange process between parties(35).

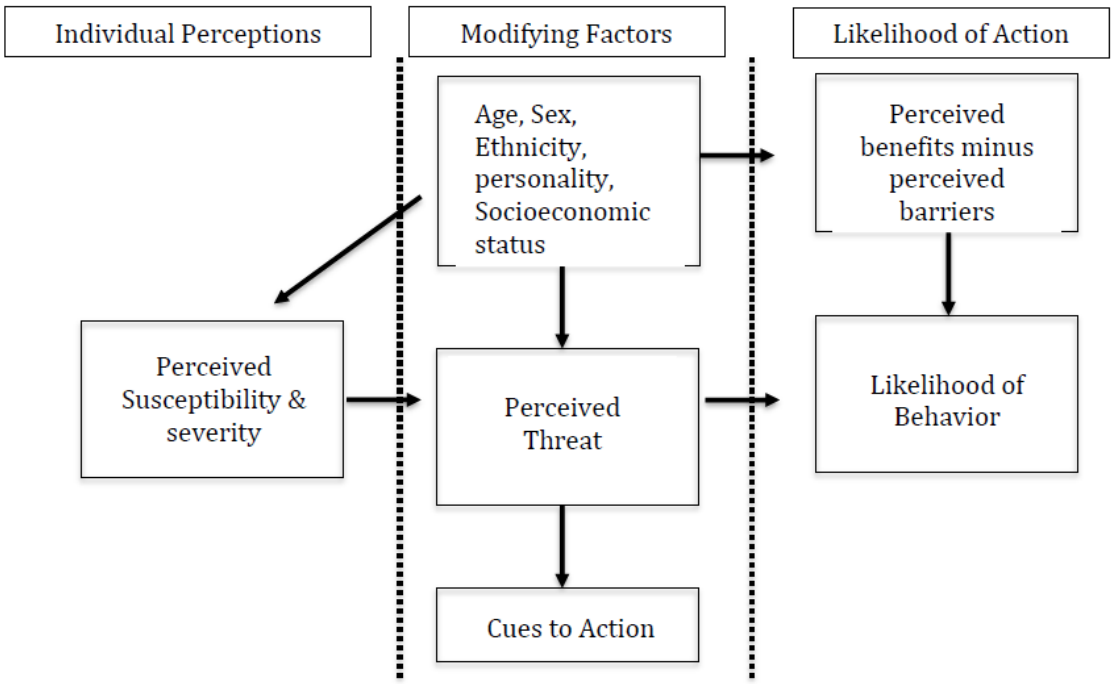

Figure 1.1: The Health Belief Model.

Community pharmacists must have a clearer understanding of the intrapersonal elements that influence a patient's participation in medication review. The impact of these beliefs on a person's inclination to seek medication counseling could be examined using the HBM. To fulfill the demands of the modern healthcare system, pharmacists must first establish close relationships with patients through more conventional counseling duties, such as medication counseling.(15, 16).

If pharmacists fail to comprehend these perceptions, they may be unable to deliver comprehensive counseling services. The inability to comprehend what motivates patients to seek drug counseling restricts pharmacists' ability to affect patient perspective. The incapacity to impact patient perception hinders the pharmacist's ability to fulfill the responsibilities for which they are qualified and required(36).

1.9 Significance of the Study:

Critical in the prognosis of numerous diseases is patient adherence to prescribed medicine. Poor patient adherence is a global issue. Consultation with a pharmacist before purchasing medications may be cost-effective and increase adherence. To increase patient satisfaction, it is necessary to improve the accessibility and delivery of medications, as well as the training of healthcare professionals.

While a number of challenges have been highlighted in the literature, the likelihood that a patient will enroll in medication counseling has not been investigated. Regarding medication counseling, patients with more serious conditions or more prescriptions are more likely to take their medications inappropriately.

There appears to be a lack of research on patient satisfaction and perceptions toward the services offered by community pharmacies in Palestine; hence, the present study was performed to assess these issues.

Accordingly, the purpose of this research aimed to investigate patients' perspectives on medication counseling provided by community pharmacies and the pharmacist's responsibilities in this setting.

Although numerous polls show that consumers in affluent countries are satisfied with pharmaceutical services, there is little study on this area in developing countries, and Palestine in particular. Therefore, the evaluation of patient satisfaction at different pharmacy settings in Palestine would give pharmacists a platform to analyze the pharmaceutical services provided to their patients.

In this regard, this study is vital for the development of pharmaceutical services that suit the demands of patients. In addition to the fact that pharmaceutical services must be based on a low-cost, realistic approach, the importance of performing this study lies in the fact that, in the long run, it will improve the status of patients and promote national pharmaceutical policy.

This study's findings will aid in enhancing the role of community pharmacists in patient education to promote medication adherence, hence increasing patient satisfaction. The results of this study may help pharmacy managers implement adjustments to improve services and health authorities recognize the expanding roles of the pharmacist by revealing patients' demands and requirements.

1.10 Aim of the Study:

To evaluate the level of patient satisfaction provided by pharmacists in Palestine, the study aims to identify patient expectations and perceptions of pharmaceutical care services

1.10.1 Objectives of the Study:

- Identify factors that predict an individual's likelihood of enrolling in medication counseling provided by community pharmacists.
- To investigate correlations between characteristics that determine the likelihood of medication counseling participation.
- To determine the incidence of patient satisfaction with pharmaceutical services in community pharmacies in West Bank.

Chapter Two

2. Literature Review:

Research examining patient satisfaction with pharmaceutical care has been conducted in a limited number of international and local studies:

- From September to January 2018, a cross-sectional survey was done to examine the quality of pharmacy services in public hospitals in Eastern Ethiopia. The conclusion of this study was that quality pharmacy services and patients' expectations is extremely poor, given the current health-care system's emphasis on providing quality care. Therefore, health-care practitioners and administrators should pay serious consideration to relevant elements in order to enhance service quality and eventually boost patient satisfaction(37).

- In the United Arab Emirates, an anonymous questionnaire-based study with a pre- pilot phase was done. The present study revealed that patients are satisfied with the pharmacy services. However, the pharmacist must perform his or her duties to the benefit of patients, and people must be informed of what to anticipate and demand from the community pharmacist(38).

- Prospective cross-sectional investigation in Tanzania. As a consequence of this study, many patients described pharmacists as professional, and around half of patients assessed pharmaceutical services as excellent. However, some patients were dissatisfied with the long wait times and medicines shortages. Patients proposed improving the pharmacy by increasing the number of employees, devising a way to cut waiting times, and stocking the pharmacy with medications. Numerous sites may have been examined, as the scope has not been restricted. The study revealed that a number of patients were pleased with a variety of pharmaceutical services(39).

- A self-administered cross-sectional assessment on pharmaceutical care at 5 MOH primary care centers in Saudi Arabia, found that patient satisfaction with pharmaceutical therapy is exceptionally high. It indicated the quality of pharmacy services provided to patients, with a focus on patient counseling and pharmacist-patient relationships. To reduce drug-related difficulties and improve pharmaceutical treatment(40).

- A cross-sectional study was performed at the teaching hospital of the University of Benin in Nigeria. The survey supports the argument that patients are dissatisfied with the hospital's present pharmaceutical services. Patients' sociodemographic characteristics were not related to their satisfaction level (41).

- A survey analysis was carried on four hundred pharmacy-visiting patients acquired by systematic random sampling from a random sample of three public health clinics. A series of questionnaires, which included the PHC-PSQ, was used to collect data. This survey revealed that patient satisfaction is relatively good. A pharmacist's general knowledge and age, as well as the frequency of visits, self-perceived health state, and education, all significantly contributed to patient satisfaction (42).

- In addition, research that compares a sample group of five Brazilian geopolitical areas based on cross-sectional, observational, and comparative methods. Overall, most interviewees were satisfied with pharmaceutical services in Brazilian cities, and customer service was an important predictor of satisfaction with those services(43).

- Using the literature, a descriptive study with observational design and a patient satisfaction questionnaire was constructed. The acquired results indicate that patients are highly satisfied with the look of pharmacist officers, the reasonableness of medicine prices, the quickness of cashier service, and the friendliness of drug service officers. The patient is moderately satisfied with the drug's accessibility, the pharmacist’s ability to provide pharmaceutical information, and the pharmacist's response to the patient. In contrast, the patients have a poor level of satisfaction with the sanitation of the dispensary and the efficiency of the officer in providing drug services (44).

- A research project in Palestine in 2012. The study sought to examine consumers' perceptions of services given by Palestinian pharmacists. According to the findings, the major factor to frequent the same pharmacy were closeness to home and the availability of a skilled pharmacist. The large percentage of responders would welcome additional community pharmacy services such as blood pressure monitoring(32).

- Another investigation in Qatar found statistical evidence that service responsiveness, pharmacist attitude, medication consultation, pharmacy position, and waiting environment all have a beneficial impact on patient satisfaction. Several sociodemographic factors have statistically significant effects on satisfaction. However, medicines availability had no effect on patient satisfaction(45).

- Another investigation was performed in Nigeria 2017 discovered that patients agreed with the counseling given by Nigerian pharmacist which offered knowledgeable explanation and management of treatment. No statistical correlation found between gender and any of the other factors besides the pharmacist's confidentiality of your conversation. Also, there is no statistical correlation between education and medicine usage, with the exception of how well pharmacists educate you on how to consume your medicine and how readily they are available to answer your questions (46).

- Another Brazilian study in 2017 There was a low level of patient satisfaction (58.4%) with pharmaceutical services. There was decrease in satisfaction level with the "opportunity/convenience" component, while the highest percentage came from "interpersonal aspects." In the multiple analysis model for general satisfaction, sex, age group, illness restrictions, and self-perception of health were connected(47).

- Another Saudi Arabian survey found that patient expectations is low, with a score of 2.97 0.65 on a 5-point scale. The most influential factors were pharmaceutical services, amenities, and counseling. Many patients were dissatisfied with pharmacists who took their medical history, provided information about side effects and interactions, and explained how medications should be stored. Other factors include an increase in

workload, a shortage of pharmacists and pharmacy personnel in hospitals, a lack of ongoing training for providers of pharmaceutical services, and a reduction in the caliber of pharmacy services, and regional health departments that pay less attention to pharmacy standards and practice(48).

- According to a study carried out in Saudi Arabia on hundred patients with type II diabetes, the intervention arm improved HbA1c levels, patient satisfaction, and medication adherence. The A1c level, patient satisfaction, and medication adherence correlated with patients' gender. Enhancements in adherence, patient expectations, and A1c measures demonstrate how important the pharmacist is to the patient's overall health care.(49).

- In Australia a research was done on more than 200 patients, the majority of participants in expressed satisfaction with pharmacist preceptor conversations. This is due to the fact that more than ninety percent of participants were happy with the interaction and services that pharmacists offered while they were there. All of them are crucial for developing a positive rapport with a patient and ensuring compliance with treatment regimen.(50).

- In Romania, a survey also discovered a high level of patient satisfaction. Most respondents thought their conversations with the pharmacist lasted five to ten minutes. Two thirds of patients said they highly satisfied with the pharmacist interaction, almost 96 percent of patients revealed good interaction with pharmacist (5 on a scale of 1 to 5). The majority of respondents said that the pharmacist provided all the information they need and that they were happy with the interaction. Pharmacists provide counseling services in a very professional manner, considering the opinions of the patients. Details about drug administration, including drug administration, way to take the medicine with food, dosage, and duration of treatment, were given to the patients.(51)

- In a 2021 Canadian study of 35 patients receiving anticancer medication, the average patient satisfaction score for counseling sessions ranged from 5.90 to 6.70 out of 7 possible points. Patient satisfaction is influenced by signs of comfort during

counseling, how easily treatment information is conveyed, and how well patients and pharmacists communicate. The majority of participants got all counselling needed from the practitioner, and the interview left them feeling very positive about their interactions with oncology pharmacists. Patients who interact with pharmacists about difficult risks and follow through with prescribed treatment are more likely to receive high-quality care.(52).

- An earlier ten-week long survey study of patients visited in a return-up visit was carried out in Edmonton, Alberta, Canada. In a rheumatology clinic, a survey of 62 female patients revealed high patient satisfaction in terms of the markers of information delivery, service procedures, ethical issues, and appropriate way interaction between pharmacists and patients.(53).

- In Iran, a survey of 326 patients demonstrated great patient satisfaction . This satisfaction is impacted by pharmacists' verbal communication when delivering counseling, as determined by voice inflection and body language, counseling wait time, and pharmacy atmosphere. Additionally, nonverbal communication abilities including keeping eye contact and displaying enthusiasm in transmitting information on medicines, and sustaining attitude should be developed when communicating with patients. Counseling with verbal and nonverbal communication improves patient satisfaction because patients feel happier chatting with pharmacists(54).

- More than half of patients in a United Arab Emirates (UAE) poll said they were satisfied with the care they received from pharmacies. This is influenced by various aspects, including pharmacists' experience, credibility, kindness, and self-assurance when offering pharmaceutical services. However, many patients who are unaware of the instructions they should and should not get from pharmacists concerning the drugs they acquire. Therefore, pharmacists must fulfill their responsibilities for the benefit of their patients(55).
- Another survey performed in the UAE in 2019 found that 72.8% of patients were highly satisfied with the pharmacists' use of plain, comprehensible language. However,

patients were not comfortable with the level of privacy during pharmacist-patient conversations(56).

- In a 2019 study conducted in Ethiopia, 291 HIV/AIDS patients were asked to complete a type 5 Likert scale questionnaire during interviews. The average level of patient satisfaction was reported to be 2.46 on a 5-point Likert scale. In the interim, pharmaceutical services are generally viewed favorably. This is impacted by unpleasant waiting areas, isolated consulting areas, and wait durations.(57).

- Another study was conducted in Slovakia in 2016 using a Likert scale of type 5. Overall, 2,844 patients reported being highly satisfied with pharmaceutical care services: interpersonal interactions. Managing therapy had a lower score (65.4% of respondents were extremely happy). The most common reasons for visiting a community pharmacy were for prescription (70.4%) and over-the-counter (70.4%) drugs. Therefore, pharmacists must enhance their professional conduct when administering pharmaceutical treatment to patients(58).

- Sweileh and Jaradat conducted two cross-sectional investigations in 2003. The purpose of the first was to evaluate pharmacy workup therapy and plan in Palestine. They discovered that they dispense prescription medications as over the counter was frequent and unregulated. Prescription medications were frequently substituted. The prescriptions of patients are not formally documented (59). The same authors conducted a second study, the sources and requirements for drug information for Palestinian community pharmacies will be examined in this study. Community pharmacists in Palestine are unable to properly educate patients about their medications because there aren't many sources of drug information available to them.(60).

- More than three hundred (310) community pharmacists participated in a cross-sectional study that was carried out by Abu Ruz et al. in 2012. They discovered that although pharmacists had a solid comprehension of the cornerstones of pharmaceutical care, their behaviors in this regard were lacking. Additionally, they have admirable attitudes toward pharmaceutical treatment(61).

- Abu Ruz et al. conducted a cross-sectional study in 2012. A survey was distributed to 240 physicians. They discovered that Jordanian physicians were not opposed to the concept of pharmacological therapy. In addition, they embraced traditional pharmacy services, such as patient education. However, many had negative experiences with pharmacists delivering pharmacological care and extending services. They believed that pharmacists were not prepared to provide this service at this time. With the rising number of Pharm. D. and Master of Clinical Pharmacy graduates, it will be intriguing to analyze how physicians' 8 expectations and experiences will evolve in the future(62).

- In 2009, Wazaify et al. conducted a study. They found that Amman's private community pharmacies' drug information resources were of low quality. As a result, patients will receive less accurate information and negatively impact the role pharmacists can play in Jordan's health care system(63).

- Al-Arifi et al. conducted a based questionnaire study on more than two hundred community pharmacists in 2007. The research demonstrated that the majority of community pharmacists have positive attitudes and solid knowledge about pharmacological care. The pharmacist noticed numerous obstacles, such as inadequate training in for good practitioner practice . There were significant disparities in replies based on a variety of variables, including gender and age. Also relevant are years of experience and place of employment(64).

- In 2001, Najjar et al. conducted a study including 511 community pharmacists. The study revealed that the number of consumers at community pharmacies was high, justifying pharmacist intervention and an active patient-focused role. The community pharmacist was needed to conduct considerable research in all fields, particularly drug utilization technique(65).

- Al-Hassan conducted a questionnaire-based study in 2009 to determine the present situation of Riyadh customers' perceptions of neighborhood pharmacies. The research demonstrated that pharmacists are sought after for their readiness to offer advice, their ability to deliver faster services, their understanding of medications, and their

competency. A list of six criteria received replies from clients, and the majority of them revealed that pharmacists are competent medical specialists. Some people have a strong conviction that pharmacists are not equipped to discuss patients' health concerns.. It is possible that the loss of anonymity could discourage those seeking help. Thus, the issue of privacy environment must be addressed(66).

- Bawazir performed a questionnaire-based study in 2004 to investigate consumer perspectives on community pharmacies and their aspiration to introduce additional pharmacy services. Most of pharmacy consumers feel comfortable getting help from their pharmacist, according to this study. Although it was found that many pharmacists were sensitive to the possibility of a lack of privacy in the pharmacy, Only a small percentage of respondents said their pharmacy offered a private area for counselling. With the exception of patient prescription data, patients were generally pleased about possible new services. (67).

- In 2010, Awad et al. conducted a survey-based study on 200 community pharmacists in Kuwait. The researchers demonstrated that community pharmacists' participation in health promotion and education was predominately focused on pharmacological issues rather than health behavior modification. There were few responders who said their pharmacy featured a private area for counselling. With the exception of patient prescription data, patients' opinions of possible new services were mostly favorable(68).

- Another cross-sectional study carried out on 274 community pharmacists in Qatar. In this survey, pharmacists demonstrated an overall high level of knowledge and positive opinions towards pharmaceutical care giving Although there were many obstacles to implementing high pharmaceutical care stage(69).

- In 2011, Kheir et al. published a review study. The study revealed that the challenges facing pharmacists in Qatar are comparable to those in other Middle Eastern nations. Numerous initiatives and tactics have been implemented to enhance pharmaceutical practices(70).

Chapter Three

3. Methodology:

3.1 Study Setting:

This study was carried out at a selection of licensed West Bank community pharmacies (Ramallah, Jenin, Hebron and Nablus). The survey was administered from January to June 2022.

3.2 Study Design:

This study is an exploratory cross-sectional study. A survey was conducted to find out how patients perceive various pharmacy services.

3.3 Sample size and sampling procedure:

According to their geographical distribution, 160 community pharmacies in West Bank cities were randomly selected for visits (i.e., north, middle and south). They account for around 15% of the1100 licensed community pharmacies. The facilities were chosen at random with the purpose of including different locations in West Bank

The West Bank population is projected to trend around 3,188,387 (BCPS, 2022, accessed 17/6/2022). The sample size with a 5% margin of error, a 95% confidence interval, and a minimum response rate of 40% was calculated using a sample size calculator at http://www.raosoft.com, the sample size required was 369 participants. A convenient sample of 400 participants were recruited from the north, middle, and south areas to fulfill the aims of

Inclusion Criteria:

Adults who were at least 18 years old or older and were willing to answer the survey questions.

Exclusion Criteria:

All participants who refuse to participate in this study and all participants under the age of 18

3.4 Theoretical Framework:

The conceptual underpinning of this inquiry was the Health Belief Model (HBM). The creation of the research tool was informed by this paradigm. The original HBM includes action cues, self-efficacy, likelihood of taking preventive health action, perceived vulnerability, perceived severity, perceived benefits, perceived obstacles, and perceived danger or susceptibility.

Self-efficacy is not being tested in this research. For the purposes of this study, perceived susceptibility was defined as a person's possible risk of not taking a prescription appropriately, which includes the consequences of side effects, the potential for drug interactions, or the perception that the treatment does more harm than benefit outcomes.

An individual's perception of the consequences of inappropriate drug use was used to determine perceived severity. This includes the possibility of needing more prescriptions, negative health consequences (side effects), and financial expenditures (emergency room, hospitalizations) if the treatment is not effective as planned. The advantages a person perceives as a result of communicating with or contacting a local pharmacist about their medications were classified as perceived benefits.

Barriers define as obstacles a person encounters with getting medication counseling from a community pharmacist were categorized as perceived barriers. Previous experiences with medication counseling or involvement in medication counseling with a community pharmacist were seen as clues to action.

The likelihood that a person will make a future contact with a community pharmacist for medication counseling was used to define the propensity to participate in medication counseling.

According to the HBM, a person's likelihood of participating in medication counseling with a pharmacist can be predicted based on perceptions of susceptibility, severity, barriers, and benefit. Perceived susceptibility and severity were expected to motivate an

individual to seek pharmaceutical counseling from a pharmacist, along with perceived benefits and barriers. It was expected that previous experiences would alter a person's perceived benefits and barriers. It was expected that the combination of these variables would motivate a person to seek pharmaceutical counseling from a pharmacist. (Figure 3.1).

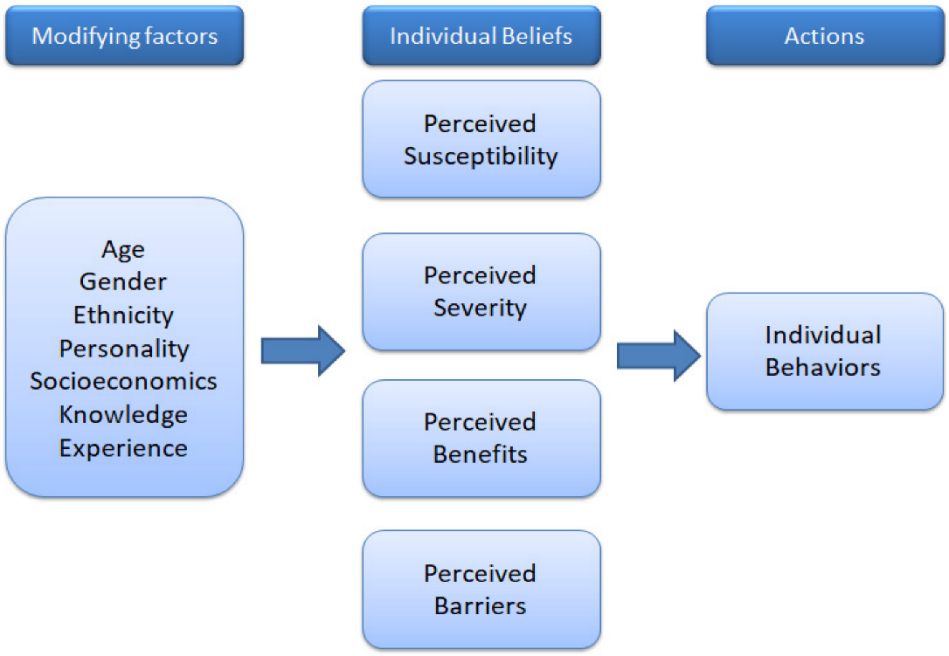

Figure 3.1: Adaptation of Health Belief Model (HBM).

3.5 Data collection and questionnaire development

The Health Belief Model and previous studies examining patient perceptions of pharmacist advice and patient satisfaction with pharmaceutical treatment served as the basis for the development and modification of the questionnaire used in the current study (38, 71, 72).

The questionnaire consists of main three parts: Demographic Characteristic, HBM section, satisfaction with pharmaceutical care services provided by community pharmacist and barriers to implement pharmaceutical care.

Demographic characteristic section asks about Age, Gender, employment, profession and number of pharmacies visit in one month. Section two was construct and modified

according to the HBM, a person's perceived susceptibility, severity, obstacles, and advantages may be used to predict whether they would participate in prescription and over-the-counter pharmaceutical counseling with a pharmacist. Horne et al. developed the BMQ, and its Arabic version was validated for chronic illness patients in 2014(73).

Each item on each scale is scored on a range of 5 to 1 (strongly agree to strongly disagree), with a higher score indicating stronger benefit, concern, susceptible or perceived barrier. The respondents were asked to reply to nine questions on the services pharmacists provide for patients in Section 3, which assesses patient satisfaction with pharmaceutical care services in community pharmacies. The responses were measured on a 5-point likert type scale ranging from Excellent, very good, good, fair, poor.

According to Ware and Hays (74), the excellent-to-poor scale resulted in mean ratings that were closer to the scale's midpoint, greater response variability, and stronger relationships with behavioral goals. They suggested that satisfaction with medical visits be measured using the excellent-to-poor response scale. Their research was remarkable for concentrating on particular medical interactions as opposed to the other pharmacy instrument, which looked at service quality as a whole.

In addition, after calculating the overall mean from each computed mean score of the patient faction, participant responses were dichotomized into satisfied and dissatisfied. As a result, content people received mean scores that were lower than or equal to the overall mean, and unsatisfied people had mean scores that were higher than the overall mean.The questionnaire was constructed and distributed in Arabic as it is the West Bank's official language, making the survey items easier to interpret. The questionnaire's items were written up in English and then translated into Arabic using the traditional forward and backward procedure. Before the questionnaire was delivered to respondents, two separate researchers double-checked the items for clarity and face validity. Cronbach's statistics were used to verify the internal reliability of all of the items.

A pilot study was conducted using a representative sample of the general population to evaluate the instrument's reliability and internal validity. The sample participants comprised of a spectrum of individuals from various socioeconomic classes, recruited from a variety of locations throughout Palestine. Participants were given an information sheet and invited to either self-complete the questionnaire or reply to an in-person interview using the questionnaire as a guide.

To ensure that the responses are consistent with the pre-specified aim of the research and to reduce personal errors, the questionnaire was administered to 10 individuals with backgrounds in medicine and non-medicine. All of their suggestions were incorporated into the final version of the questionnaire. For HBM one item was eliminated in order to get a satisfactory Cronbach's alpha of ranged from 0.67 to 0.841 among the remaining perceptual items in different domains. For the 10 satisfaction questions, another item was eliminated in order to get a Cronbach's of 0.85 for the remaining 10 questions, which is an acceptable level of internal dependability.

Patients' willingness to reply to a more extensive questionnaire is limited by the Palestinian community's due to limited understanding of outcome research, epidemiological studies, and their influence on the improvement of health care services. When choosing a simple questionnaire, it's also vital to take into account the fast-paced advancement of society and the illiteracy of some patients. Given this, it was predicted that the responders' demographic would be less susceptible to understanding difficult queries. Consequently, their capacity to comprehend a more complex question structure is doubtful, and their responses may have contributed to ambiguity in interpretation-. To avoid unintentional bias in the interpretation of specific responses, a closed-ended, straightforward, and intelligible question format was consciously selected. Moreover, this style was shown to capture speedy responses while allowing patients to respond with ease and maintaining the survey's aim. The responses to the survey were further categorized based on pre-defined demographic factors, including age, gender, and marital status.

3.6 Ethical considerations:

Before beginning this investigation, the research ethics committee at Al-Quds University allowed and authorized access to patient information, study protocol and ethical checklist. Ethical letter was issued (Ref No: 210/REC/2021) also, a permission letter was obtained from the pharmaceutical association before initiation of this study in community pharmacies. Prior to each participant's participation in the study, informed consent was acquired. In a cover letter, respondents were informed that the information they supply will be collected anonymously for research purposes.

The study entails interviewing patients for around 10 to 15 minutes, with their consent and after completing a written consent form.

3.7 Data entry and analysis:

After grouping factors and providing a serial number to each patient data questionnaire, the researcher entered variables of data from questionnaires into the computer using the (SPSS) version 22.0 program. Data were reported as continuous variables with means and standard deviations and with number and percentages for ategorical variables. Data was tested for normality distribution using the Kolmogorov-Smirnov test, Mann-Whitney test was performed to identify any association between non-parametric variables. The Student's t-Test was used to determine the association between parametric variables. The significance of the relationships between categorical data was assessed using the Chi-square test. A P-value of less than 0.05 was considered to be statistically significant for all analyses.

Chapter Four

4. Results:

This chapter includes the study's findings as well as an analysis of the data that was gathered for the investigation. There are four sections in this chapter. The validity and reliability of the questionnaire were discussed in the first part. The study population's demographics and response rate were discussed in the second section. The third section included a summary of the survey's responses for each section. To achieve the study's goals, statistical analysis was presented in the fourth section.

4.1 Validity

By having 4 pharmacy faculty members assess the survey, its face validity and content were both checked. Additionally, two more faculty members from public health possessed knowledge of survey research in epidemiological studies. Two faculty members were actively engaged in community practice. Their feedback and recommendations were used to do a preliminary analysis of the survey.

4.2 Reliability of the survey

The reliability of the survey was determined using Cronbach’s coefficient alpha. The survey consists of five total domain sections in addition to the demographic section . Reliability was tested for five sections of the survey. The sixth section consists of demographic questions and was not tested for reliability. The six sections that were measured consisted of 29 total items, following the amendments during face validity testing (Table 4.1). These sections will henceforth be referred to as sections I-V

Table 4.1: Reliability Statistics using Cronbach's Alpha

Sections	**N**	**N. of items**	**Factors**	**Item means**	**Corrected total-item correlation**	**Cronbach's Alpha**
I		**4**	Perceived Susceptibility	**2.9**	**0.31 – 0.47**	**0.665**
II		**4**	Perceived Severity	**3.3**	**0.39 – 0.51**	**0.731**
III		**5**	Perceived Barriers	**2.9**	**0.27 – 0.42**	**0.683**
IV		**7**	Perceived Benefits	**3.5**	**0.35 – 0.56**	**0.774**
V		**10**	Satisfaction	**2.4**	**0.5 – 0.72**	**0.840**

Participants were asked four questions in Section I about perceived susceptibility. The survey's reliability for this segment was r = 0.655. The variables' perceived susceptibility items' means varied from 2.5 to 3.2. Four questions in Section II asked respondents to rate the seriousness of the effects of taking drugs incorrectly. The reliability that corresponded to it was r = 0.731. The items in this factor had means that ranged from 3.1 to 3.7. Participants were asked six questions in Section III about their perceptions of obstacles to communicating with a pharmacist and taking drugs. The item means varied from 2.3 to 3.4, and the associated reliability was r = 0.683. Participants were asked nine questions in Section IV about the perceived advantages of communicating with a pharmacist and taking drugs. These items' means ranged from 3.20 to 3.83, and their reliability was r = 0.774 as a result. Ten questions about their satisfaction with the services offered by community pharmacists were posed in the final segment. These items' means ranged from 1.7 to 3.0, and their reliability was r = 0.840 as a result.

4.3 Participants' Characteristics

During the study period, 460 people were approached and requested to participate in the study. The number of respondents who agreed to take part was 400 (400/460), making the overall response rate 87.0%, there was no data gathered on non-responders. The most frequent justifications, however, were a lack of time, a need to hurry, and a lack of interest in taking part.

The demographics of the study population are shown in Table 4.2. According to descriptive statistics run on the data, there were 46.5% male respondents (n=186) and 253 were female respondents (53.5%). The majority of responders (35.8%) and (23.0%) were between the ages of 18 and 30 and 31 to 45 respectively. Most individuals had between 0-2 (55.5%) and 3-5 (34.3%) drugs recommended to them. The majority of participants were with non-medical background 78.8%, while 21.2% of participants were with medical background. Most of the participants were resident in Ramallah district (middle, 62.2%), and 41% were not working. Half of the participants had governmental insurance (50.3%) while 28.7% were self-funded. More than half of the participants completed their collage / university degree (54.0%) and almost half of the participants were diagnosed with one or two medical conditions 49.7%.

Table 4.2. Respondents' characteristics (N=400)

Variable n (%)	**N (%)**
Gender	
Male	186 (46.5)
Female	214 (53.5)
Age	
18-30 years	143 (35.8)
31- 45 years	92 (23.0)
46- 60 years	91 (22.8)
> 60 years	73 (18.3)
Education	
Illiterate/elementary	69 (17.0)
School level	116 (29.0)
College/university level	215 (54.0)
Location	

North	53 (13.3)
Middle	249 (62.2)
South	98 (24.5)
Employment	
Employee	142 (35.5)
Self-employee	93 (23.3)
Not working	165 (41.2)
Profession Background	
Medical	85 (21.2)
Non-Medical	315 (78.8)
Number of diagnosed diseases	
Does Not Apply	43 (10.8)
1-2	199 (49.7)
3-5	99 (24.8)
> 5	59 (14.7)
Number of medications	
0-2	222 (55.5)
3-5	137 (34.3)
> 5	41 (10.2)
No. pharmacies patronized (last 3 months)	
1	102 (25.5)
2	175 (43.8)
3	75 (18.7)
> 3	48 (12.0)
Insurance	
Governmental	201 (50.3)
Private	84 (21.0)
None	115 (28.7)

4.4 Perceived Susceptibility

Tables 4.3 – 4.6 demonstrated participants' response to survey section I and II, which measure individuals perceived susceptibility and severity.

Table 4.3. Descriptive analysis of perceived susceptibility domain[a]

	N	Minimum	Maximum	Mean	St. Deviation
Score	**400**	**4.00**	**20.0**	**11.55**	**2.90**

[a]Range of scale: 4-20

Table 4.4. Item scores – Perceived Susceptibility[a] (N=400)

Item #	It is possible that I may not take my medication(s) as prescribed or directed because…	SD	D	Neither	A	SA	Mean (±SD)
1	I don't understand how to take my medications correctly	59 (15.0%)	173 (43.0%)	53 (13.0%)	103 (26.0%)	12 (3.0%)	2.6 (1.1)
2	I worry about harmful side effects I may experience from taking my medications	26 (7.0%)	125 (31.0%)	85 (21.0%)	148 (37.0%)	16 (4.0%)	3.0 (1.0)
3	I worry about the possible risk of my medications interacting with each other	18 (4.0%)	78 (19.0%)	118 (29.0%)	171 (43.0%)	15 (4.0%)	3.2 (0.9)
4	I believe medications do more harm than good	83 (21.0%)	146 (36.0%)	83 (21.0%)	77 (19.0%)	11 (3.0%)	2.5 (1.2)

[a]Each item measured by 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither Agree or disagree (Neither), 4 = Agree (A) 5 = Strongly agree (SA)

The mean score of susceptibility domain was (11.5±2.9, range 4-20), while the mean score of the severity score was (13.3±3.0, range 4-20). More than half of the participants (229/400, 57.3%) disagree with the item "I believe medications do more harm than good", while (186/400, 46.5%) agree or strongly agree with the item "I worry about the possible risk of my medications interacting with each other". The item "I don't understand how to take my medications correctly" had the highest disagreement.

Table 4.5. Descriptive analysis of perceived severity domain[a]

	N	**Minimum**	**Maximum**	**Mean**	**St. Deviation**
Score	**400**	**4.00**	**20.0**	**13.3**	**3.00**

[a]Range of scale: 4-20

Table 4.6. Item scores – Perceived severity [a] (N=400)

Item #	**If I do not take my medications as prescribed or directed…**	**SD**	**D**	**Neither**	**A**	**SA**	**Mean (±SD)**
5	My medication(s) will not be as effective for its purpose	17 (4.0%)	72 (18.0%)	47 (12.0%)	237 (59.0%)	27 (7.0%)	3.5 (1.0)
6	I may experience a need for additional medication(s) to treat my health condition(s) or disease	13 (3.0%)	52 (13.0%)	81 (20.0%)	240 (60.0%)	14 (3.0%)	3.4 (0.9)
7	I may experience consequences to my health (examples: health condition gets worse, disease state uncontrolled, side effects of medication)	25 (6.0%)	64 (16.0%)	149 (37.0%)	143 (36.0%)	19 (5.0%)	3.1 (0.9)

8	I may experience financial consequences (examples: hospitalization or emergency room costs)	21 (5.0%)	76 (19.0%)	115 (29.0%)	169 (42.0%)	19 (5.0%)	3.3 (1.4)

[a]Each item measured by 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither Agree or disagree (Neither), 4 = Agree (A) 5 = Strongly agree (SA)

The mean score of severity scale was 13.3±3.0. The two statements that participants endorsed the most strongly were "My drug will not be as effective for its purpose" (3.5±1.0) and " I may experience a need for additional medication(s) to treat my health condition(s) or disease" (3.4±0.9). In addition the other two statements I may experience consequences to my health and I may experience financial consequences endorsed more agreement than disagreement (40.5% and 47.0%), overall indicating that patients perceived severity if the participants did not take their medications as prescribed by their healthcare providers.

Table 4.7. Descriptive analysis of perceived barriers domain[a]

	N	**Minimum**	**Maximum**	**Mean**	**St. Deviation**
Score	**400**	**6.00**	**28.0**	**17.6**	**3.8**

[a]Range of scale: 6-30

Table 4.8. Item scores – Perceived barriers (N=400)

Item #	**In general, I do not speak with a pharmacist about my mediation(s) because…**	**SD**	**D**	**Neither**	**A**	**SA**	**Mean (±SD)**
9	I am not interested in discussing my medication	93 (23.0%)	170 (42.0%)	41 (10.0%)	88 (22.0%)	8 (2.0%)	2.4 (1.1)

10	I do not have time to speak about my medication	47 (12.0%)	196 (49.0%)	61 (15.0%)	93 (23.0%)	3 (1.0%)	2.5 (0.9)
11	I would use the internet for additional medication information	22 (5.0%)	57 (14.0%)	118 (29.0%)	174 (43.0%)	29 (7.0%)	3.3 (0.9)
12	The pharmacist age and gender	69 (17.0%)	110 (27.0%)	84 (21.0%)	129 (32.0%)	8 (2.0%)	2.7 (1.1)
13	The queues and pressure work on pharmacist	20 (5.0%)	62 (15.0%)	84 (21.0%)	221 (55.0%)	13 (3.0%)	3.4 (0.9)
14	Lack of space and privacy area for counselling	18 (4.0%)	64 (16.0%)	65 (16.0%)	236 (59.0%)	17 (4.0%)	3.5 (1.4)

[a]Each item measured by 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither Agree or disagree (Neither), 4 = Agree (A) 5 = Strongly agree (SA)

The barrier domain asks questions about respondents' perceptions of obstacles to interacting with a pharmacist about their drugs (Tables 4.7, 4.8). Barriers were often reported by the participants as shown in table 4.7 the mean score was (17.6 ± 3.8, range 6-30). Of the 6 statements on barriers, the lack of space and privacy area for counselling had the highest mean score (SD) of 3.5 (1.4) as well as the high percentage of 'agree and strongly agree' response on queues and waiting time (58.5%) and would use medical websites to seek for medical information (50.8%).

However, high response of "disagree and strongly disagree" on I do not have time to discuss my medication with my pharmacist and not interesting to discuss my medication (65.8% and 60.7%), indicating the willing of participants in implementing the pharmaceutical care services.

On the other hand, table 4.10 showed the response on the benefit scale, the overall mean was (24.5± 4.6). High percentage of 'agree and strongly agree' response on it will improve my health, I will feel more confident that I take the correct medication and take my medication correctly (80.5%, 83.5% and 74.5% respectively). Other statements also showed a higher agreement than disagreement; indicate that participant's perceived benefit

when they are talk to their pharmacist about their medication and implementing the pharmaceutical care services.

There was a significant differences between mean perceived benefit and mean perceived barriers (24.5 vs. 17.5, $p < 0.05$)

Table 4.9. Descriptive analysis of perceived benefit domain[a]

	N	**Minimum**	**Maximum**	**Mean**	**St. Deviation**
Score	**400**	**7.0**	**35.0**	**24.5**	**4.6**

[a]Range of scale: 7-35

Table 4.10. Item scores – Perceived benefit (N=400)

Item #	**In general, I would speak with a pharmacist about my medication(s) because**	**SD**	**D**	**Neither**	**A**	**SA**	**Mean (±SD)**
15	It will help me improve my health, or get my disease under control	11 (3.0%)	42 (10.0%)	25 (6.0%)	299 (75.0%)	23 (6.0%)	3.8 (2.0)
16	I will feel more confident that I am taking the correct medication	10 (2.0%)	27 (7.0%)	29 (7.0%)	304 (76.0%)	30 (7.0%)	3.8 (1.4)
17	will be less likely to experience a need for additional medication(s) to treat my health condition(s) or disease	15 (4.0%)	41 (10.0%)	95 (24.0%)	222 (55.0%)	27 (7.0%)	3.5 (0.9)
18	I will feel more confident that I will take my	12 (3.0%)	36 (9.0%)	54 (13.0%)	252 (63.0%)	46 (11.0%)	3.9 (0.8)

	medication correctly						
19	I will be less likely to experience consequences to my health (examples: health condition gets worse, disease state uncontrolled, side effects)	16 (4.0%)	58 (14.0%)	156 (39.0%)	151 (38.0%)	19 (5.0%)	3.2 (0.9)
20	I will be less likely to experience negative financial consequences (examples: hospitalization or emergency room costs) related to inappropriate medication use	17 (4.0%)	67 (17.0%)	119 (30.0%)	183 (46.0%)	14 (3.5%)	3.2 (0.9)
21	The pharmacist is the most reliable source for medication information	21 (5.0%)	63 (16.0%)	71 (18.0%)	178 (44.0%)	67 (17.0%)	3.5 (1.1)

[a]Each item measured by 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither Agree or disagree (Neither), 4 = Agree (A) 5 = Strongly agree (SA)

Table 4.11. Descriptive analysis – Satisfaction Scale [a]

	N	**Minimum**	**Maximum**	**Mean**	**St. Deviation**
Score	**400**	**10.0**	**50.0**	**24.1**	**7.1**

[a]Range of scale: 10 – 50

Table 4.12 Satisfaction with pharmaceutical care using a 5-Point Likert Scale

#	**Items**	**E**	**V.g**	**G**	**F**	**P**	**Mean (±SD)**

22	The pharmacist's efforts to help you improve your health or stay healthy	158 (39.0%)	120 (30.0%)	53 (13.0%)	60 (15.0%)	9 (2.0%)	2.1 (1.4)
23	The pharmacist's efforts to assure that your medications do what they are supposed to	116 (29.0%)	147 (37.0%)	72 (18.0%)	46 (11.0%)	19 (5.0%)	2.3 (1.1)
24	The responsibility that the pharmacist assumes for your drug therapy	46 (11.0%)	183 (46.0%)	87 (22.0%)	53 (13.0%)	31 (8.0%)	2.6 (1.0)
25	How well the pharmacist helps you to manage your medications	160 (40.0%)	102 (25.0%)	45 (11.0%)	69 (17.0%)	24 (6.0%)	2.7 (1.1)
26	The pharmacist's interest in your health	50 (12.0%)	135 (34.0%)	73 (18.0%)	92 (23.0%)	50 (12.0%)	2.9 (1.2)
27	The pharmacist's efforts to solve problems that you have with your medications	109 (27.0%)	108 (27.0%)	88 (22.0%)	52 (13.0%)	43 (11.0%)	3.0 (1.2)
28	The privacy of your conversations with the pharmacist	41 (10.0%)	104 (26.0%)	124 (31.0%)	124 (31.0%)	7 (2.0%)	1.8 (1.0)
29	The amount of time the pharmacist offers to spend with you	17 (4.0%)	75 (19.0%)	99 (25.0%)	101 (25.0%)	108 (27.0%)	3.5 (1.2)
30	How well the pharmacist explains possible side effects	34 (8.0%)	91 (23.0%)	93 (23.0%)	111 (28.0%)	71 (18.0%)	3.2 (0.9)
31	How will you satisfied with the replacement of your drug with alternative one by the pharmacist	50 (12.0%)	71 (18.0%)	59 (15.0%)	160 (40.0%)	60 (15.0%)	3.3 (1.2)

[a]Each item measured by 1 = Excellent (E), 2 = Very good (V.g), 3 = Good (G), 4 = Fair (F) 5 = Poor (P). SD=Standard Deviation

Table 3 shows the specifics of the Likert scale items used to evaluate patient satisfaction with pharmaceutical care. On a scale of 10-50, with varied satisfaction levels for various services, the total mean score standard deviation for the satisfaction level with pharmaceutical care services was 24.1± 7.1. More over half (58.5%) of respondents were satisfied with pharmaceutical care services, according to the dichotomized levels of patient satisfaction based on overall mean; (satisfied and unsatisfied >24.1).<24.1

A majority of patients responded "very good to excellent" for item like satisfaction with medication management, solve drug related problems, and improve participants' overall health. In the contrary, lack of privacy and inconvenient waiting areas, amount of time pharmacist spend with the patients and explain the drug side effect were the most participants' responded as " fair to poor satisfied".

According to linear regression, participants' perceptions of susceptibility, severity, barriers, benefits, and other demographic factors could be used to predict participants' satisfaction with the pharmacists' services and willingness of a patient to participate in medication counseling with a pharmacist

Multiple linear regression demonstrated four variables to be significantly correlated with satisfaction with pharmaceutical care services included perceived susceptibility ($\beta = .157$, $p = .002$), residency ($\beta = -.203$, $p = 0.001$), number of medications ($\beta = -.237$, $p = .001$), and perceived barriers ($\beta = -.132$, $p = .012$). Indicating, that participants with higher number of medication and those perceived susceptibility were more satisfied and those perceived barriers were less satisfied with pharmaceutical care provided by community pharmacies.

Table 4.13 Multiple linear regression analysis of prediction of an individual's satisfaction with pharmaceutical services and willing to participate in medication counseling (N = 400)

	b[a]	**SE**	**β[b]**	**t**	**P-Value**
Perceived Susceptibility*	.383	.124	.157	3.08	**.002**
Perceived benefit	-.018	.086	-.012	.209	.835
Perceived Barriers*	-1.07	.423	-.132	-2.53	**.012**
Perceived Severity	.040	.097	.021	.623	.534
Age	-.222	.313	-.035	-.709	.479
Gender	1.20	.687	.084	1.75	.081
Location (Residency)*	-2.38	.565	-.203	-4.24	**.001**
Education	.078	.185	.021	.423	.672
No. Pharmacy patronized	-.598	.387	-.091	-1.54	.123
Employment	-.024	.315	-.004	-.076	.940
Insurance	-.082	.132	-.035	.408	.684
Number of Medications*	-1.05	.253	-.237	-4.15	**.001**

[a] Unstandardized beta. [b]Standardized beta. * Statistically significant at $P \leq .05$

Chapter Five

5. Discussion

To the best of our knowledge, this research is the first to explore the extent of patients' satisfaction towards pharmaceutical care services, and its association with socio-demographic characteristics among diverse group of participants attending community pharmacies the West Bank, Palestine. We found one study conducted in North West Bank, the study explore the patients' views on 90 participants who were attended three governmental hospitals(47).

The study participants were comparable to the Palestinian Central Bureau of Statistics, in regards to gender and age(75) . The census revealed that there were somewhat more female Palestinians than males and young population. The information gathered reflected the broader population. This might have happened because of the survey's accessibility in public pharmacies and its equal likelihood of administration to both genders and different ages. In addition, the majority of the participants came from middle region (60%), as the questionnaire distributed face to face near the researcher's residency. However, the role of the pharmacist, in regards to implement the pharmaceutical care is similar in each region.

Patients in this study disagreed that they were prone to misusing their drugs. According to the research, a person may become more vulnerable if they take many prescription drugs, use herbal remedies, have poor health literacy, or are exposed to direct-to-consumer advertising(76). However, more participants agree or strongly agree about the concern of number of drugs and drug-drug interaction. Community pharmacists could inform patients about various medication errors, like forgetting to take a dose, taking it at the wrong time, or quitting a prescription too soon.

These results also imply that community pharmacists could think about focusing on patients who are taking a less number of prescriptions. The results of this study imply that these people are less likely to seek for pharmaceutical care and therapy management

because they are less inclined to accept their susceptibility, according to the literature (77-79). In the contrary, one study on perceived susceptibility of complication due to diabetes disease, patients believed that regular visits with their pharmacists might not significantly lessen their susceptibility to developing the diseases that were reported as vulnerable. Some people who had previously dealt with the condition could have believed that even after learning how to take care of oneself, there was still a danger of developing it(80).

According to severity, the majority of participants in this study believed that there would be unfavorable outcomes if they did not take their drugs as prescribed or instructed. This might be the case since people are generally aware that taking drugs improperly might have negative effects. Although many people are aware that taking medications wrongly can have negative effects, they do not view themselves as being prone to doing so (76). An interesting study about seeking pharmaceutical care and point of care found that location, convenience, prior knowledge of, and perceived severity of the ailment that required seeking treatment from pharmacists were the main variables in choosing a point of care. As evidenced by their frequent direct requests for a particular medication, some patients who presented in the pharmacy setting had previously experienced the symptoms. In contrast, the majority of people who went to an ED for care were dealing with the symptom for the first time, and they thought it was more serious(81).

According to perceived benefit, Participants in the study were generally aware of the advantages of discussing their drugs with a pharmacist. Many people said that getting in touch with a pharmacist helped them feel better and improve their health outcomes. In a recent study conducted in Oman (82) the participants overwhelmingly viewed pharmacists as experts in things relating to medications, and the majority of participants (62%) felt that pharmacists might offer additional services such health screening services, blood pressure monitoring, and blood sugar monitoring. These outcomes also is consistent with that of the study by Eades et al., which revealed that customers thought of community pharmacists as drug experts(83, 84).

In the contrary, a study carried out to assess the patients satisfactions with pharmacist' services in United Arab Emirates the only (26.9%) of respondents concurred that the pharmacist fully explain all potential drug side effects, whereas a larger proportion of the respondents disagreed(38). In addition, it was evident that nearly equal percentages of

respondents agreed and disapproved with the pharmacist's provision of written or printed information on drug therapy and/or diseases. According to a different UK survey, just a small proportion of customers said they would consult a pharmacist for help on minor illnesses because they felt that pharmacists did not know enough about their particular health (85). Likewise in Scotland, it was noted that less than 10% of a sample of the general population thought that the pharmacist was the "first person to consult on health problems" (86).

The study's findings imply that better patient communication may enhance counseling sessions and, as a result, the benefits that patients experience. When pharmacists educate patients on the advantages of medication counseling, they are more likely to seek pharmacist's advice it in the future.

This study found that a person's perceived barriers reduce their propensity to seek pharmaceutical care services or counselling. The study population reported few barriers like lack of privacy and space area for counselling and using the internet was the one consistently mentioned that might have an impact on community pharmacy practice. These findings are in consistent with other studies in the literature. In a study by Khdour et. al which explored the Societal perspectives on community pharmacy services in West Bank, showed that one third reported that the pharmacist used a private area within the pharmacy during the counselling and more than half of the respondents chose doctors as their favorite source of guidance, while 23.8% chose pharmacists (32). Similar outcomes were observed in a research by Huston, S., where patients regularly cited both their doctor and the Internet as their primary sources of drug information (76). Patients' potential experiences may be limited if pharmacists find it increasingly challenging to engage them in medication counseling if they start relying largely on the Internet for drug information.

Community pharmacists should also remind patients that discussing their medication through pharmaceutical services in the pharmacy offers more thorough information than what is available online. Pharmacists can make it clear that counseling covers the patient's whole pharmaceutical regimen as well as their medical background, and is not only focused on one particular prescription. When a pharmacist demonstrates the advantages of medication counseling to a patient, they are more likely to request it in the future and perceive less barriers.

Overall patient's satisfactions is average and moderate with the pharmaceutical care services. More over half (58.5%) of respondents were satisfied with pharmaceutical care services. The items that received the highest satisfaction rating were medication management, solve drug related problems, and improve participants' overall health. A study regarding patient satisfaction with the pharmaceutical care services conducted in Ethiopia, found that "How well the pharmacists advise you about how to take your medications was found to have the highest satisfaction rating(87). They attributed it due to the fact that pharmacists are the only drug experts and at such they always give patients, the direction for use of any medication dispensed.

The Health Belief Model's constructs were tested using multiple linear regression to see if they could predict a patient's satisfaction with the pharmaceutical care services provided by the community pharmacists. The model explained 61% of the variance and revealed that participants with higher number of medication and those perceived susceptibility were more satisfied and those perceived barriers were less satisfied with pharmaceutical care provided by community pharmacies. Similarly, a study used constructs of the Health Belief Model (HBM) to explain patients' perceptions to understand whether patient perceptions of patient safety play a role in patient involvement in factual and challenging patient safety practices. The study revealed that perceptions of barriers and benefits and threats were found to be a contributing factor to patient involvement in patient safety practices(88). In other study that utilized HBM to describe self-care practices among patients with diabetes, (89) showed that formal education, high-perceived severity, and high self-efficacy contributed to good self-care practices. whereas comorbidities, and high perceived barrier were associated with poor self-care practices.

Although patients have high expectations, it is important to underline that pharmacists are fulfilling their obligations in the area of patient satisfaction. Nonetheless, since patients' expectations will continually rise, more effort should be made to raise the standard of care provided to them. Thus, more training is advised for pharmacists in order to address patients' needs at all times.

Study limitations:

- Social desirability and recall biases are possible because this survey measured people's self-reported habits.

- The construct self-efficacy was not included in the Health Belief Model (HBM) framework that was employed in this study. Although not incorporated in all HBM applications, self-efficacy may influence a patient's propensity to take part in pharmaceutical counseling.
- A lack of research, resources, and information in the research field.
- The reasons for patients' rejection to engage in the study were not addressed in this study.
- As a non-response bias investigation was not done because of the sampling method, it is likely that people who took part in the study had different perceptions than those who did not.

Chapter Six:

6. Conclusion and Recommendations:

6.1 Conclusion:

The results of this study may be used to describe disconnects between patients and pharmacists that have been noted in the literature. There is an underutilization of pharmaceutical care services, caused by patient perceived barriers. This leads patients to misunderstand the benefits of these services provided by the pharmacist. The pharmacist's interaction appears to be more challenging in community practice. It may be appropriate for pharmacy professionals to offer pharmaceutical care services mainly medication Revie and counselling to all individuals in the future, regardless of the medication or the individual's initial preference. The likelihood of an individual continuing to use pharmaceutical services, seeing more benefits and experiencing fewer barriers increases when they have experience with it.

According to the findings of this study, perceptions can be utilized to predict patient behavior. This research also provides a viable and accurate tool for measuring intrapersonal characteristics that inspire people to seek medication counseling from a community pharmacist. Overall, this study provides a tool for community pharmacists to better understand their patients, quantify their perspectives, and, ultimately, influence medication counseling utilization. Further research on the application of this instrument and model in a practice-based research context is required.

Improved community pharmacy services are required. Professional development programs for pharmacy employees are also required. Furthermore, government should prioritize and play a role in enhancing pharmacy care services.

6.2 Recommendations:

These recommendations aim to improve patient satisfaction with pharmaceutical care services, empower community pharmacists to deliver patient-centered care, and facilitate an enabling policy environment that supports the integration of community pharmacies into the broader healthcare system.

Analyze patient satisfaction levels based on different age groups to identify variations in expectations and needs. Compare satisfaction levels between younger and older patients to understand any discrepancies and tailor services accordingly.Conduct subgroup analyses to explore if age-related factors (e.g., polypharmacy, specific chronic conditions) influence satisfaction levels.

Enhance pharmacist-patient communication: Encourage pharmacists to engage in active listening, provide clear and comprehensive medication counseling, and address patient concerns and questions.

Personalized medication management: Pharmacists should conduct medication reviews, assess medication adherence, and identify potential drug interactions or adverse effects. Tailor interventions and recommendations based on individual patient needs.

Patient education: Develop educational materials and programs to enhance health literacy among patients. Provide information on proper medication use, self-care practices, and disease management strategies.

Implement medication therapy management (MTM) services: Offer comprehensive medication reviews, monitoring, and follow-ups to optimize therapy outcomes and address medication-related issues.

Recognize the role of community pharmacies: Incorporate community pharmacies into healthcare policy frameworks, highlighting their significance in delivering pharmaceutical care services and improving patient outcomes.

Facilitate training and continuing education: Support the professional development of pharmacists by providing training programs, workshops, and certifications in pharmaceutical care services. Emphasize the importance of ongoing education to ensure high-quality service provision.

Establish quality assurance mechanisms: Implement regular assessments and audits of community pharmacies to ensure adherence to professional standards and guidelines. Develop standardized tools to measure patient satisfaction and regularly monitor and evaluate the quality of pharmaceutical care services.

Encourage interprofessional collaboration: Foster collaboration between pharmacists, physicians, and other healthcare providers to enhance coordination of care, optimize medication regimens, and improve patient outcomes.

Reimbursement and incentive mechanisms: Consider financial incentives or reimbursement schemes for community pharmacies that actively engage in providing high-quality pharmaceutical care services, promoting patient satisfaction, and achieving positive health outcomes

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Appendixes:

Appendix A:

Al-Quds Ethical committee approval Letter.

Al-Quds University
Jerusalem
Deanship of Scientific Research

بسم الله الرحمن الرحيم

جامعة القدس
القدس
عمادة البحث العلمي

Research Ethics Committee
Committee's Decision Letter

Date: December 11, 2021
Ref No: 210/REC/2021

Dears Dr. Maher Khdour, Ms. Sujood Mashaala,

Thank you for submitting your application for research ethics approval. After reviewing your application entitled "Assessment of Patient's Satisfaction with Pharmaceutical Care Services in Community Pharmacies in west bank: A cross sectional study.", the Research Ethics Committee confirms that your application is in accordance with the research ethics guidelines at Al-Quds University.
We would appreciate receiving a copy of your final research report/ publication.
Thank you again and wish you a productive research that serves the best interests of your subjects.

PS: This letter will be valid for two years.

Sincerely,

Suheir Ereqat, PhD
Associate Professor of Molecular Biology

Research Ethics Committee Chair

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

Abu-Dies, Jerusalem P.O.Box 20002
Tel-Fax: #970-02-2791293
research@admin.alquds.edu
أبوديس، القدس ص.ب. 20002
تلفاكس: #970-02-2791293

Appendix B:

Research Ethics Subcommittee of Faculty of pharmacy approval Letter.

Al-Quds University
Faculty of Pharmacy
Abu-Dies, Jerusalem

بسم الله الرحمن الرحيم

جامعة القدس
كلية الصيدلة
أبوديس – القدس

Research Ethics Subcommittee of Faculty of Pharmacy
Letter of approval

Nov. 28, 2021
Ref. No.: Res/3/2021

Dear Applicants, (**Dr. Maher Khdour, Mrs. Sojoud Mashala)**

Program: **Pharmaceutical sciences**

The Research Ethics subcommittee of Faculty of Health Professions has recently reviewed your proposal entitled **"Assessment of Patient's Satisfaction with Pharmaceutical Care Services in Community Pharmacies in west bank: A cross sectional study"** submitted by **(Dr. Maher Khdour, Mrs. Sojoud Mashala)**
Your proposal is deemed to meet the requirements of research ethics at Al-Quds University, but further assessment is required by the Central Research Ethics Committee of Al-Quds University. We wish you all best for the conduct of the project.

Maysa Nabulsi
Research Ethics Subcommittee
Faculty of Pharmacy
CC: File
CC: Committee members

كلية الصيدلة
Faculty of Pharmacy

Appendix C:

Consent Form:

موافقة على المشاركة في بحث علمي.

عنوان البحث:

تقييم رضا المريض عن الرعاية الصيدلانية في صيدليات المجتمع.

اسم الباحث: سجود ذياب مشاعله

اخي\ اختي المتطوع(ة) هذا البحث هو احد الابحاث الطبية التي تقوم بها كلية الصيدلة في جامعة القدس للحصول على درجة الماجستير ويهدف الى تحسين نوعية حياة المرضى.

ارجو ان ابين ما يلي:

ان مشاركتك في هذا البحث طوعية تماما" ، ومن شأنها افادة المجتمع وعملية البحث العلمي بشكل عام.

في حال مشاركتك بالبحث ، سيبقى اسمك طي الكتمان ، ويحق لك الانسحاب متى شئت من دون أي اثر يذكر عليك.

يجدر الاشارة ان لجنة البحث العلمي في جامعة القدس قد وافقت على اجراء البحث ، وتعتبر هي اللجنة المؤسسية والمرجعية للبحوث والدراسات.

Appendix D:

Questionnaire in English:

Patient's satisfactions and perceptions with pharmaceutical care services provided by community pharmacists in West Bank

Demographics

Age:

☐ 18-30 ☐ 31-45 ☐ 46-60 ☐ >60

Gender:

☐ male ☐ female

Location:

☐ South ☐ middle ☐ north

Education :

☐ no education ☐ primary ☐ secondary ☐ university/college ☐ higher education (master, phD)

EMLOYEMENT :

☐ EMPLOYEE ☐ SELF EMPLOYEI ☐ student ☐ not working

Professional background :

☐ non-medical ☐ medical

Insurance:

☐ government ☐ private self/non ----------

What is your diagnosis _____

☐ Condition Number

☐ diabetes ☐ hypertension ☐ respiratory

Number of medications :

☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ >7

Number of pharmacy you used : No. pharmacies patronized (last 3 months)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ >4

Number of pharmacy visit last yaer :

☐ 1 -3 ☐ 3-5 ☐ 5-7 ☐ 7-10 ☐ >10

Prescription filled last month :

☐ 0-2 ☐ 3-5 ☐ > 6

Health Belief model - Perceived Susceptibility:

Item : It is possible that I may not take my medication(s) as prescribed or directed because….

1) I don't understand how to take my medications correctly

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

2) I worry about harmful side effects I may experience from taking my medications

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

3) I worry about the possible risk of my medications interacting with each other

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

4) I believe medications do more harm than good

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

Health Belief model - Perceived severity:

Item If I do not take my medications as prescribed or directed...

5) My medication(s) will not be as effective for its purpose

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

6) I may experience a need for additional medication(s) to treat my health condition(s) or disease

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

7) may experience consequences to my health (examples: health condition gets worse, disease state uncontrolled, side effects of medication)

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

8) I may experience financial consequences (examples: hospitalization or emergency room costs)

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

Health Belief model - Perceived Barriers

Item In general, I do not speak with a pharmacist about my mediation(s) because…

9) I am not interested in discussing my medication

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

10) I do not have time to speak about my medication

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

11) I would use the internet for additional medication information

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

12) The pharmacist age and gender

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

13) The queues and pressure work on pharmacist

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

14) Lack of space and privacy area for counselling

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

Health Belief model - Perceived Benefits

Item In general, I would speak with a pharmacist about my medication(s) because…

15. It will help me improve my health, or get my disease under control

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

16. I will feel more confident that I am taking the correct medication

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

17. will be less likely to experience a need for additional medication(s) to treat my health condition(s) or disease

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

18. I will feel more confident that I will take my medication correctly

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

19. I will be less likely to experience consequences to my health (examples: health condition gets worse, disease state uncontrolled, side effects)

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

20. I will be less likely to experience negative financial consequences (examples: hospitalization or emergency room costs) related to inappropriate medication use

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

21. The pharmacist is the most reliable source for medication information

☐ Strongly Disagree (SD) ☐ Disagree(D) ☐ Neither
☐ Agree ☐ Strongly Agree (SA)

Overall Satisfaction with pharmaceutical care services provided by community pharmacists

22. The pharmacist's efforts to help you improve your health or stay healthy

☐ Excellent ☐ Very good ☐ good
☐ fair ☐ poor

23. The pharmacist's efforts to assure that your medications do what they are supposed to

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

24. The responsibility that the pharmacist assumes for your drug therapy

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

25. How well the pharmacist helps you to manage your medications

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

26. The pharmacist's interest in your health

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

27. The pharmacist's efforts to solve problems that you have with your medications

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

28. The privacy of your conversations with the pharmacist

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

29. The amount of time the pharmacist offers to spend with you

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

30. How well the pharmacist explains possible side effects

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ poor

31. How will you satisfied with the replacement of your drug with alternative one by the pharmacist

☐ Excellent ☐ Very good ☐ good

☐ fair ☐ Poor

32. What services should the pharmacist provide?

☐ Blood pressure measurement
☐ blood sugar measurement
☐ body weight measurement
☐ Smoke cessation
☐ Pregnancy test
☐ Weight management
☐ Medication review

Another suggestion :

31)Do you agree to pay a sum of money for this service ?

☐ Yes ☐ No

32)Do you accept to pay the pharmacist an amount of money for a consultation?

☐ Yes ☐ No

33)Do you accept the replacement of the drug with alternative?

☐ Yes ☐ No

Appendix E:

Questionnaire in Arabic:

رضا المرضى وتصوراتهم عن خدمات الرعاية الصيدلانية المقدمة في الضفة الغربية

الخصائص الديمغرافية للعينة:

العمر:

30-18 سنة ☐ 45-31 سنة ☐ 60-46 سنة ☐ أكثر من 60 سنة ☐

الجنس:

ذكر ☐ أنثى ☐

الموقع:

الجنوب☐ الوسط☐ الشمال☐

المستوى التعليمي:

غير متعلم ☐ أساسي ☐ ثانوي ☐ جامعي ☐ دراسات عليا ☐

طبيعة العمل:

موظف ☐ عمل شخصي ☐ طالب ☐ لا أعمل ☐

الخلفية المهنية:

غير طبية ☐ طبية ☐

نوع التأمين:

حكومي ☐ خاص ☐ شخصي/لا يوجد ☐

التشخيص:

مرض السكري ☐ **مرض الكوليسترول** ☐ **ارتفاع ضغط الدم** ☐ الغدة الدرقية ☐ الربو☐

أخرى _____ .

عدد الأدوية التي تتناولها:

2-1 ☐ 4-3 ☐ 6-5 ☐ أكثر من 7

عدد الصيدليات التي ترتادها:

1 ☐ 2 ☐ 3 ☐ 4 ☐ أكثر من 4 ☐

عدد الزيارات التي قمت بها للصيدليات خلال العام الماضي:

3-1 ☐ مرات 5-3 مرات ☐ 7-5 مرات ☐ 10-7 مرات ☐ أكثر من 10 مرات☐

الوصفة الطبية المصروفة الشهر الماضي:

2-0 ☐ 5-3 ☐ أكثر من 6 ☐

نموذج المعتقدات الصحي- مدى القابلية:

قد لا أتناول دوائي (أدويتي) على النحو المقرر والموصوف عندما....

1) لا أعرف كيف اتناول الدواء بشكل صحيح.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

2) أشعر بالقلق من الآثار الجانبية الضارة التي قد أتعرض لها من تناول الدواء.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

3) أشعر بالقلق بشأن المخاطر المحتملة لتفاعل الأدوية التي تناولها مع بعضها البعض.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

4) أعتقد أن الأدوية تضر أكثر مما تنفع.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

نموذج المعتقدات الصحية – الحِدة:

إذا لم أتناول دوائي (أدويتي) على النحو المقرر والموصوف .....

5) لن يكون الدواء (الأدوية) الخاصة بي فعالة لعلاج الغرض الذي من أجله أتناولها.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

6) قد أواجه حاجة إلى دواء (أدوية) إضافية لعلاج حالتي المرضية.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

7) قد واجه عواقب صحية (مثل تدهور الحالة الصحية، أو مرض صحي لا يُسَيطر عليه، أو آثار جانبية للأدوية).

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

8) قد يترتب على ذلك تكاليف مالية (مثل: تكاليف العلاج في المستشفى أو حتى تكاليف زيارة غرفة الطوارئ).

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

نموذج المعتقدات الصحية – المعيقات :

بشكل عام، لا أناقش الصيدلي بشأن دوائي (أدويتي) بسبب .....

9) لست مهتمًا في جعل دوائي محل نقاش.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

10) ليس لدي وقت كافٍ لأتحدث عن دوائي.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

11) سأستعين بالإنترنت للحصول على معلومات إضافية عن الأدوية.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

12) عمر الصيدلي وجنسه.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

13) ازدحام الصيدلية بالزبائن وضغط العمل الواقع على الصيدلي.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

14) عدم توفر المساحة والخصوصية اللازمة للاستشارة.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

نموذج المعتقدات الصحية – الفوائد :

بشكل عام، أود أن أتحدث عن دوائي للصيدلي وأناقشه به لأنه.....

15) سيساعد في تحسين حالتي الصحية، أو السيطرة على مرضي.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

16) سأشعر بثقة أكبر ذلك أنني أتناول الدواء الصحيح.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

17) سُيقلل نقاش دوائي مع الصيدلي احتمالية الحاجة إلى أدوية إضافية لعلاج حالتي الصحية أو مرضي.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

18) سأشعر بمزيد من الثقة ذلك أنني أتناول دوائي بشكل صحيح.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

19) سأكون أقل عرضة لتجربة العواقب على صحتي (مثل تدهور الحالة الصحية، أو مرض صحي لا يُسَيطر عليه، أو آثار جانبية للأدوية).

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

20) سأكون أقل عرضة لتكاليف مالية قد تترتب علي (مثل تكاليف العلاج في المستشفى أو تكاليف غرفة الطوارئ) نتيجة الاستخدام غير الصحيح للأدوية.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

21) الصيدلي هو المصدر الأكثر موثوقية للمعلومات المتعلقة بالأدوية.

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

مستوى الرضا العام عن الخدمات الصيدلانية المقدمة

22) جهود الصيدلي المبذولة لمساعدتك تسهم في تحسين حالتك الصحية أو البقاء بصحة جيدة.

ممتاز☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

23) الجهود التي يبذلها الصيدلي للتأكد من أن الأدوية التي أخذتها تنجح في علاج حالتك.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

24) استعداد الصيادلة في تحمل مسؤولية علاجك الدوائي.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

25) مساعدة الصيدلي لك في الإشراف على تناولك للأدوية الخاصة بك.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

26) اهتمام ومتابعة الصيدلي لحالتك الصحية.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

27) الجهود التي يبذلها الصيدلي في مساعدتك على حل المشاكل التي تواجه بالأدوية التي تتناولها.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

28) حفاظ الصيدلي على خصوصيتك.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

29) الوقت الذي يتيحه لك الصيدلي للتحدث معه.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

30) شرح الصيدلي لك الآثار الجانبية المحتملة.

ممتاز ☐ جيد جداً ☐ جيد ☐ مقبول ☐ ضعيف ☐

31) هل تقبل استبدال الدواء ببديل أخرى؟

أعارض بشدة ☐ أعارض ☐ محايد ☐ أوافق ☐ أوافق بشدة ☐

تقييم رضا المريض عن الرعاية الصيدلانية الخدمات في صيدليات المجتمع بالضفة الغربية: دراسة مقطعية.

أعداد الطالبة : سجود مشاعلة.

المشرف الدكتور : ماهر خضور.

ألملخص

الملخص والاهداف :يعتبر تقديم الخدمات الصيدلانية للمجتمع ورعاية المرضى من المسؤوليات الهامة للصيادلة.يبدو ان عامة الناس لا يفهمون تمامًا الدور المهم الذي يلعبه الصيادلة في نظام الرعاية الصحية. كان الهدف من هذه الدراسة هو فحص التصور العام حول خدمات الصيدلة المجتمعية ، ومدى رضاهم عن خدمات الرعاية الصيدلانية باستخدام نموذج للمعتقدات الصحية.(HBM)

المنهجية :أجريت دراسة مقطعية على عينة سكانية تم اختيارها عشوائياً (عددها = 400) في الضفة الغربية من كانون الثاني حتى حزيران 2022 لمدة ستة أشهر. تم استخدام استبيان من 35 عنصرًا لجمع المعلومات حول التركيبة السكانية للمرضى و معرفة مدى رضاهم عن خدمات الصيدلة التي تستخدم (HBM)

النتائج :وبلغ معدل الاستجابة للاستبيان 87٪. أدرك غالبية المرضى فائدة الاستفادة من خدمات الرعاية الصيدلانيةبمعدل (24.5 ± 4.6). كانت هناك فروق ذات دلالة إحصائية بين متوسط الفائدة المتصورة والحواجز المتصورة (24.5 مقابل 17.5 ، ف <0.05). لم يكون هناك اتفاق بين المرضى على البنود الأربعة لتقييم الحساسية (المتوسط = 11.55 ± 2.44 ، النطاق 4-20) لكن كان نتيجة الأسئلة الأربعة التي تقيس الخطورة المتصورة كان عليها اجماع) . عبر المشاركون عن مستوى رضا متوسط عن الخدمات الصيدلانية وإدارة العلاج ، وكانت النتيجة (± SD) على مقياس (24.1 ± 7.1 ، النطاق 10-50). كانت البنود المتعلقة بخصوصية المريض وشرح الآثار الجانبية للأدوية حصلت على اعلى نسب من عدم رضا (91٪ و 55٪ على التوالي). أظهر الارتباط ان أربعة متغيرات مرتبطة بشكل كبير بالرضا عن خدمات الرعاية الصيدلانية بما في ذلك الحساسية المتعلقة بالرعاية الصيدلانية157. = β) ، (002. = p، الإقامة203.- = β) ، (0.001 = p، عدد الأدوية 237- = β) ، (001. = p، والحواجز المتعلقة بالرعاية الصيدلانية132.- = β) ، .(012. = pمما يشير إلى أن المشاركين الذين لديهم عدد أكبر من الأدوية وكانوا أكثر قابلية للإصابة بالمرض كانوا أكثر رضا وأن نتيجة الرضا عن الحواجز المتعلقة بالرعاية الصيدلانية كانت اقل .

الخاتمة: أعرب غالبية المشاركين عن مستودى متوسط من الرضى عن خدمات الرعاية الصيدلانية. صيادلة المجتمع في مكان مناسب ولديهم القدرة على تحسين الفائدة التي يدركها المرضى من خلال توفير خدمات الرعاية الصيدلانية الشاملة وإدارة العلاج الدوائي.