An-Najah National University Faculty of Graduate Studies

## The Relationship Between Professional Culture of Pharmacy and Different Pharmaceutical care Services Provided by Community Pharmacists: A Cross Sectional Study in West Bank /Palestine.

By

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This Thesis is Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Public Health Management, Faculty of Graduate Studies, An-Najah National University, Nablus- Palestine.

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#### Dedication

To my mother For her overwhelming love, limitless giving and for being my teacher, my mentor and my best friend

To my father For his great support and for all times he gently picked me up

To my husband For his love, support and for all the special little things he does

To my brothers and their families For their continued encouragement, unconditional love and useful advices

> To my daughter For her beautiful face and sweet smiles

To my aunt Rajaa' and her family For their support and encouragement

To my friends Hala and Areen For standing by me like a sisters

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أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

#### The Relationship Between Professional Culture of Pharmacy and Different Pharmaceutical care Services Provided by Community Pharmacists: A Cross Sectional Study in West Bank /Palestine.

أقر بأن ما اشتملت عليه هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء من تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل، أو أي جزء منها لم يقدم من قبل لنيل أية درجة أو لقب علمي او بحثى لدى أبة مؤسسة تعليمية أو بحثية أخرى.

#### Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

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Signature:

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| WHO    | World Health Organization                                 |
|--------|---|
| PCBS   | Palestinian Central Bureau of Statistics                  |
| MOH    | Ministry of Health  |
| OCP    | Organizational Culture Profile                            |
| ASHP   | American Society of Hospital Pharmacists                  |
| MTM    | Medication Therapy Management                             |
| PCNE   | Pharmaceutical Care Network Europe                        |
| JCPP   | Joint Commission of Pharmacy Practitioners                |
| PARiHS | The Promoting Action on Research Implementation in Health |
|        | Services  |
| BPCS   | Behavioral Pharmaceutical Care Scale                      |

#### List of Abbreviations

#### The relationship between professional culture of pharmacy and different pharmaceutical care services provided by community pharmacists: a cross sectional study in West Bank /Palestine

By Aman Jebril Supervisor Dr. Mariam AL-Tall

#### Abstract

As the health care system has been grown, pharmacy profession also has been expanded and the integration of advanced pharmacy services such as pharmaceutical care services increased. However, many pharmacists have not been able to provide such services yet. The implementation research suggests that understanding the professional culture of pharmacy profession, which is a part of the whole pharmacy context is of key importance to achieve effective change in pharmacy practice.

This study aimed at examining any relationship between the professional culture of pharmacy and the provision of pharmaceutical care services by community pharmacists, the secondary aim of this work was to gain insight into the professional culture of community pharmacists.

This study was a cross-sectional online self-administrative questionnaire for community pharmacists in The West Bank. The questionnaire contained three parts. The first part was the demographic background section. The second section was the pharmaceutical care part. It contained a list of 20services which was derived from the Behavioral Pharmaceutical Care Scale (BPCS). The third one was the professional culture part. It contained the organizational culture profile (OCP) as a measure for the professional culture.

Total 294 completed questionnaire were returned. The average of respondents age was  $(37.5 \pm 9.5)$ . The most provided dimension of pharmaceutical care was the instrumental activities (mean  $4.28 \pm 0.44$ ) with "very often" level of provision and the least one was the referral and consultation (mean  $3.46 \pm 0.6$ ) with "often" level of provision. Study participants perceived the greatest value in the factor of "reward orientation" (4.1803  $\pm$  0.553), followed by factors of "performance" orientation"  $(3.9252 \pm 0.614)$ , "supportiveness"  $(3.9039 \pm 0.625)$ , "competitiveness" (3.7730  $\pm$  0.705), "stability" (3.6743  $\pm$  0.725), "social responsibility" (3.6276  $\pm$  0.676) and "innovation" (3.3316  $\pm$  0.677) in descending order. Linear regression test revealed significant positive relationships between factors of "competitiveness" and "direct care activities" (p = .001), "supportiveness" and "referral activities" (p = .000), "competitiveness" (p = .013), "social responsibility" (p = .006) and "supportiveness" (p = .000) and the "provision of pharmaceutical care services".

This cross-sectional research showed that community pharmacists in Palestine have improved the practice of pharmaceutical acre. This study represents a starting step in identifying the professional culture of community pharmacy and understanding how this culture may influence the challenge of conducting changes in pharmacy practice in Palestine.

## Chapter One Introduction

#### 1.1 Background

All over the world, community pharmacists are considered as the first line of interaction with the health care system for many patients (Sweileh et al., 2016; World Health Organization [WHO], 1994a). Because they are the health care providers most trusted and accessible, they can provide different types of services for their patients (Melton & Lai, 2017). For a long time, the majority of these services have been dispensing and counseling for over-the-counter drugs, and-if it allowed- for prescription drugs (WHO, 1994a). Compounding has been one of the services provided by community pharmacists throughout the world (Gastelurrutia et al., 2006), but this practice is very limited here in Palestine (Sweileh et al., 2016). Community pharmacists have been also provided several services weight like blood pressure, blood glucose, and measurements (Gastelurrutia et al., 2006).

By that time, community pharmacies in most countries became places where individuals may obtain health advice and assistance with managing their disease states with medication, and pharmacists' integration to clinical practice grew larger (George et al., 2010). The main principle of pharmacy practice nowadays is, mainly, helping patients in better understanding of their health status, and the way of using their medications appropriately (Burns, 2008). Rather than dispensing and traditional services, the need for pharmaceutical services that focus on collaborative work with patients and other healthcare providers to optimize the clinical outcomes and ensure safe and effective medication use (pharmaceutical care services) was emerged (Dalton & Byrne, 2017; Pellegrino et al., 2009).

Forces that inhibit or promote this transformation in pharmacy practice became necessary to be understood. One of the main influencers of the change in pharmacy practice is the context in which pharmacists find themselves play an important role in the change process (Kitson et al., 1998; Scott-Findlay & Golden-Biddle, 2005). This context consists of various aspects (economic, social, political, legal, physical, and cultural environments). Regarding to the profession of pharmacy, the cultural aspect of this context is the professional culture (the shared values, beliefs, assumptions, and ways of thinking and behaving between members of a profession) of pharmacists who are carrying out the change (Bloor & Dawson, 1994; Scahill et al., 2009). This study focuses on the potential impact of professional culture on the provision of pharmaceutical care services by community pharmacists.

#### **1.2 Pharmacy practice and pharmaceutical care in Palestine.**

The intention to develop pharmaceutical care practice in Palestine came into effect when some of the Palestinian universities added the discipline of clinical pharmacy to their medical disciplines list for both bachelor's and master's degree, which in turn assisted in supplying the medical field with patient-oriented rather than product-focused health workers (Khdour & Hallak, 2012). Clinical pharmacists started to fill their duties in some health organizations such as educational and governmental hospitals, but the insertion of this discipline in health settings was done as a single and isolated profession from other health professions (Naseef et al., 2020). Despite that pharmaceutical law in Palestine strongly support the appropriate and legal supply of drug regimen to the patients, clear legislations are still needed to shape and organize the pharmaceutical care services in different health organizations (Naseef et al., 2020).

Research on pharmaceutical care in Palestine is limited and most of it is descriptive. Recently, considerable attempts toward understanding this issue in Palestinian health settings started to take a place in health research. One of the recent efforts was done by Dr. Ramzi Shawahna in the area of "developing quality indicators of pharmaceutical care in integrative health care facilities" by taking into consideration the available literature and the view of stakeholders in the medical field (Shawahna, 2020a; Shawahna, 2020b).

# **1.3 Community pharmacy and pharmaceutical care in Palestine.**

According to the Palestinian census, the estimated number of the West Bank population in 2020 is3,053,183 with a growth rate of 2.2% (Palestinian Central Bureau of Statistics [PCBS], 2020). The number of licensed pharmacies in the West Bank in 2020 is 1,101 as mentioned in the MOH annual report. These findings mean that there is an adequate pharmacy provider to population ratio. Community pharmacies in Palestine are private with no presence of chain pharmacies, unlike the case in Western countries (Sweileh et al., 2016).

As it does in most countries, community pharmacy in Palestine provides a lot of benefits as a part of the public health settings. The prolonged working hours, the lower cost than visiting a physician's clinic, and the that there is no need to make a special appointment to gain medical advice make community pharmacies the most accessible health settings (Jaradat & Sweileh, 2003; Khdour & Hallak, 2012). This situation ensures the important role of community pharmacies in solving public health issues and managing a large number of illnesses.

For successful implementation of pharmaceutical care in Palestine to occur community pharmacists have to make a large effort to elevate public and medical sector expectations about pharmacists' role in providing care and should ensure the potential advantages of expanding their contribution in drug use process (Khdour & Hallak, 2012). The role of Palestinian community pharmacists seems to be very important because they constitute the largest proportion of pharmacists in Palestine. Regarding the MOH, the total number of registered pharmacists in the West Bank in 2020 is 5,152 and the number of pharmacists who are working in the MOH is 287, most of the rest are working in community pharmacies (Ministry of Health [MOH], 2020).

Community pharmacy in Palestine is traditional in general, especially in rural areas. The integration of pharmaceutical care services in community pharmacy practice is limited somehow because pharmacists are not legally asked for saving medication records and part of them do not have a computerized system to facilitate the documentation process (Al-Ramahi et al., 2016; Sweileh et al., 2009), all of these influence pharmacists' ability to provide patient-medication plans, monitor and follow up these plans, and evaluate the obtained health outcomes.

When a study discusses the issue of pharmaceutical care in Palestine, it directly gives considerable attention to the barriers that inhibit the implementation of pharmaceutical care. The non-organized cooperation between doctors and pharmacists, the inability to access the patient's medical information, the dissatisfaction with salaries level, the absence of continuous education courses and training, and the lack of time and privacy to provide suitable medical advice and counseling in some cases are being labeled as the main barriers led to the delayed development of pharmaceutical care practice between community pharmacists (Al-Ramahi et al., 2016).

#### 1.4 Significance of the study.

The practice of pharmaceutical care by community pharmacists in Palestine is still evolving. It was studied previously in the context of examining the pharmacists' attitudes and the barriers to this practice (Al-Ramahi et al., 2016; Shawahna, 2020a; Shawahna, 2020b). Characterizing the culture of the pharmacy profession and linking it with professional behaviors did not take a place in pharmacy research. In particular, the professional culture of community pharmacists, and its potential influence on the practice change to pharmaceutical care have not been studied yet.

In this study, the pharmaceutical care services provided by community pharmacists, the professional culture of community pharmacy, and the possible relationships between the cultural factors and the uptake of pharmaceutical care opportunities by Palestinian community pharmacists were investigated. This work is an important starting point in studying the impact of professional culture on the pharmaceutical care practice and provides preliminary insight into the community pharmacy context. All of these when added to the previously mentioned barriers, appropriate recommendations to promote the pharmacists' ability to integrate pharmaceutical care services into their practice can be provided.

#### 1.5 Study objectives.

This study aimed at examining any relationship between the professional culture of pharmacy and the provision of pharmaceutical care services by community pharmacists, the secondary aim of this work was to gain insight into the professional culture of community pharmacists. This achieved through the following objectives:

- Identify the types of pharmaceutical care services that community pharmacists provide for their patients
- Identify the cultural factors of the community pharmacy in Palestine
- Investigate possible relationships between number of sociodemographic characteristics and the provision pf pharmaceutical care services among community pharmacists
- Investigate possible relationships between number of sociodemographic characteristics and the Organizational Culture Profile (OCP) factors that pharmacists perceive value in
- Examine the relationship between the OCP factors and the provision of pharmaceutical care services by community pharmacists.

#### 1.6 Research questions.

- What are the pharmaceutical care services provided by community pharmacists?
- What are professional cultural factors that community pharmacists give high values for?
- Are there any differences in the provision of pharmaceutical care services among community pharmacists according to their gender, age, qualification, experience and country of graduation?

- Are there any differences in the professional cultural factors among community pharmacists according to their gender, age, qualification, experience and country of graduation?
- Do the OCP factors influence the provision of pharmaceutical care?

## Chapter Two Literature review

#### 2.1 Pharmaceutical care.

As the healthcare system has been grown and developed all over the world, the pharmacy profession has been expanded and become more advanced. Traditional pharmacy roles have been no longer sufficient, and new practices have been introduced. High quality instead of large volume service, and patient-centered, outcomes-oriented services instead of a product (drug) focused services have been the center of pharmacy practice development (Geeret al., 2011; Westberg et al., 2017).

The development and transformation of pharmacy practice have been a constant concern of the profession since the beginning of the 1970s (Baumgartner et al., 1972; Kidder, 1977). The common revolutionary term that described the change of pharmacy practice was pharmaceutical care when it was mentioned as a "subset of medical care" by Mikeal and others in 1975 (Mikeal et al., 1975). Subsequent efforts to develop the concept of pharmaceutical care, by including the patient's need for a specific drug, and the safe and effective therapy-related services as main components of pharmaceutical care were made by Brodie (Brodie, 1967).

The developmental stage ended, and a new era in the pharmacy profession began, when Hepler and Strand put the definition of pharmaceutical care in 1990 as "the responsible provision of drug therapy to achieve definite outcomes that improve a patient's quality of life" (Hepler & Strand, 1990). Minor adaptations were introduced for this definition, the American Society for Health-System Pharmacists modified it in 1992 to be: "the direct, responsible provision of medication-related care to achieve definite outcomes that improve a patient's quality of life". (American Society of Hospital Pharmacists [ASHP], 1993, p266). In 2013 a new definition of pharmaceutical care was published by the Pharmaceutical Care Network Europe (PCNE), the definition is: "the pharmacist's contribution to the care of individuals to optimize medicines use and improve health outcomes" (Allemann et al., 2014, p.544). This definition ensured the importance of pharmacists' collaboration with other health practitioners to gain the full success of pharmaceutical care.

The core elements of the practice philosophy of pharmaceutical care as scholars found are; social responsibility toward reducing drug-related problems, providing services within a patient-focused context, and delivering care to patients through creating a therapeutic plan and following the patient up to ensure that the desired outcomes are achieved (Cipolle et al., 1998).

Odedina & Segal (1996) noted that a confusion emerged about how to determine whether pharmaceutical care services are provided or not and if these services are provided, to which extent pharmacists provide pharmaceutical care. In order to answer these questions researchers developed a measuring tool for the provision of pharmaceutical care. Following "the framework of Benson and Clark for instrument development and validation" a tool called Behavioral Pharmaceutical Care Scale (BPCS) was developed and validated. This tool contained 3 dimensions of services; each dimension contained different domains and each domain represented by several items. Number of studies then used the BPCS or derived tools from it so as to measure the pharmacists' provision of pharmaceutical care.

Pharmaceutical care is the first concept used to express the meaning of comprehensive patient care services worldwide. It is the common term used in Europe (Yordanova & Petkova, 2013), World Health Organization (WHO, 1994b), and the Middle East (Kheir et al., 2013). In the USA pharmaceutical care is used, but the term Medication Therapy Management (MTM) is used mostly there. MTM is synonymous with pharmaceutical care, and the main stages of them have been combined in a method called the pharmacists patient care process. These stages are; 1) collecting the necessary information about the patient, 2) assessing the collected information and analyzing the clinical effects of the medications in the context of the patient's health status, 3) developing a patient action plan, 4) implementing this plan in collaboration with other care providers, and 5) monitoring and evaluating this plan through following up (Joint Commission of Pharmacy Practitioners [JCPP], 2014). In addition to MTM services, some studies use the concept of clinical pharmacy to give the same meaning.

Although all patients should be benefited from these services, it has been very difficult for pharmacists to provide their patients the overall dimensions of pharmaceutical care. Therefore, pharmaceutical care services are especially advantageous for patients with chronic diseases, who use various medications regularly, and visit more than one physician (McGivney et al., 2007). These services contribute to appraising the patient's completion of treatment regimens and addressing medication-related issues such as medication interactions, overlapping, and any potential adverse effects, which in turn improve the mortality and morbidity benefits within those patients (McGivney et al., 2007; Pellegrino et al., 2009).

Recent studies showed that pharmacists' interventions and recommendations are will recognized and acceptable by different medical practitioners (Lucca et al., 2012). Such interventions had a significant role in reducing treatment costs for ICU patients (Lucca et al., 2012), and reducing medication errors and different drug-related problems (Westberg et al., 2017).

The evidence supported that pharmaceutical care influenced community pharmacy practice around the world. Community pharmacists have a significant clinical role in managing chronic diseases such as diabetes (Santschi et al., 2012). Evidence also demonstrated the safety and efficacy of independent prescribing by pharmacists in helping cases with hyperlipidemia and hypertension to achieve the evidence guidelines (Mossialos et al., 2015; Tsuyuki et al., 2016).

The expanded responsibilities of pharmacists were advocated by different pharmaceutical associations in western countries like Canada, Australia, United States (Yordanova & Petkova, 2013). New legislations were introduced to give pharmacists the opportunity to provide more health services to their patients and the term of pharmaceutical care became directly regulated by law (Yordanova & Petkova, 2013). For example; pharmacists are now able to provide immunizations, medication reviews, and disease management consultations (Baqir et al., 2012; Rosenthal, Houle, et al., 2015), and they should be paid by the government to provide these services (Houle et al., 2014). However, pharmaceutical care services have not spread to all pharmacists, and by extension, some patients may not be treated by this approach.

Research showed that merely supplying pharmacists and other healthcare providers with evidence-based information about the successful provision of services to patients do not guarantee the successful implementation of pharmaceutical care services (Peters et al., 2013). Internationally barriers face the change in pharmacy practice are almost the same. Studies explained that most mentioned obstacles were; lack of support, training, and time which reduces patients' attention to these services and strengthens pharmacists' notion that people do not care about these services (Mossialos et al., 2015; Schommer & Gaither, 2014). Even though these obstacles are

incredibly important, they only represent one aspect in addressing the insufficient change in the pharmacy profession. According to these findings, examining additional dimensions of the change in pharmacy practice became very important to develop more specific knowledge to improve the uptake and integration of pharmaceutical care services by pharmacists.

#### 2.2 Professional culture.

The evidence discussed the contribution of organizational culture and the pattern in which a group of participants perceive and perform their role in understanding how those participants' practices change (Scott-Findlay & Golden-Biddle, 2005). Literature also suggests that understanding the context which is "the environment or setting in which the proposed change is to be implemented" plays a role in facilitating the change implementation (Kitson et al., 1998). The Promoting Action on Research Implementation in Health Services framework (PARiHS) -which is part of the implementation literature that provides methods to implement the research in practice, and examine the implementation of quality developmental interventions in the health system- also ensured the significance of culture in promoting changes in work-related behaviors (Kitson et al., 2008).

Regarding (PARiHS), to take a deep insight into pharmacy 'context' is of key importance to have a better understanding of "the prevailing culture, the nature of human relationships as summarized through leadership roles and the organization's approach to routine monitoring of systems and services" (Kitson et al., 1998). While it is very important to understand the leadership roles in addition to the monitoring processes, the focus in this study will be on understanding the culture -because of the purpose of the research-.

The traditional perspective on culture -which has been explained in part of the change management studies- viewed it as an all-comprehensive entity that covers the overall participants, and the new participants are just empty recipients which the culture is predominately "pored" into them (Schein, 2004). This perspective estimates that the culture has already been existed and developed at a specific time to meet the goals of founding leaders. Therefore, it is less likely to be developed or transformed by a group of members in the organization (Schein, 2004). Using this perspective in culture examinations means that conducting cultural changes seems to be very hard because they occur outside the control of individual participants (Schein, 2004). Thus, the traditional perspective on culture is not useful in expanding members' knowledge of culture to create changes.

In contrast, another perspective on culture proposed that members of an organization or profession may belong to several cultures at the same time (Martin, 2002). For example, think about a pharmacist who is working in a community pharmacy in a small village, from this simple characterization, it could be assumed that the exemplar pharmacist belongs to a list of

different cultures such as; professional culture of community pharmacy, the culture of his village, and the culture of his country or region.

By logic, it is true to expect that this pharmacist cannot turn off the meaning of being from a village when he comes to the pharmacy to provide care to his patients. Understanding that all members are multicultural beings means that, wherever they are, the different cultures they belong to will help in clarifying their behaviors. Such a switch in the way of culture study is significant in recognizing that the culture in any setting is not stable and becomes changeable. Over time, members' interactions and experiences will affect their interpretations and behaviors and consequently, some aspects of culture will change and this flexibility provides an important role in promoting changes.

While most of the previous literature in this field referred the culture to the culture of an organization, the culture of the profession -which researches explained that exist in the senior systems and organizations- (Bloor & Dawson, 1994; Hofstede, 1998) participates in understanding the context mentioned in the PARiHS (Martin, 2002). This means whether specific research attempts to understand the organizational or professional culture, the definitions in these cases converge on a similar set of meanings.

Therefore, in this research, the professional culture can be broadly understood as "[groupings] of people that share common socialization, education, and knowledge to perform a specific task, and have control over that knowledge" (Livigni, 1994, p. 290). This definition can also be extended to involve "patterns of [subjective] interpretation composed of meanings associated with various cultural manifestations, such as stories, rituals, formal and informal practices, jargon and physical arrangements" (Martin, 2002, p.330). This definition concentrates on how to understand the culture as a part of the approach by which a group of professional members perceives their everyday activities.

In non-health- providing professions, the professional culture and its effect on professional behaviors and interactions have been investigated. A study that examined the professional culture of probation officers found that it influences their relationships with offenders and the results of the rehabilitation activities they provide to offenders (Burke & Davies, 2011; Worrall & Mawby, 2014). The professional culture of human resource workers was found to be employee-centered culture instead of focusing on business outcomes (Hansen et al., 1994). The different professional cultures accounting between groups of managers increase the miscommunications between different groups of accountants, because of the differences in the use of some terminologies (Johnson et al., 2009).

A preliminary examination of the professional culture of different health professions has been conducting. In medicine, the professional culture of physicians -especially those who are working in multicultural countrieswas discussed as a part of the approach in which medical students used to deal with patients from different social and cultural backgrounds (BoutinFoster et al., 2008). Also, the professional culture of both medicine and social work was studied in the light of identifying conflict values between these two professions, and the efficacy of their work together (Roberts, 1989).

In nursing practice, professional culture was discussed from the aspect of facilitating changes in the health system (Van Ess & Wilcox, 1990), and prediction of nursing turnover in hospitals (Jacobs & Roodt, 2008). Watling et al. (2013) found a preliminary relationship between different professional cultural patterns in learning the meanings of "credibility and constructiveness", and the production of effective feedback in medical professions. In pharmacy practice, the role of professional culture was investigated in the contexts of enhancing organizational changes (Scahill et al., 2009), medication safety (Machenet al., 2019) hospital pharmacists' attitude toward being patient-centered in their practice (Al Hamarneh et al. 2011), and community pharmacists' perception of their role (Rosenthal et al., 2011).

Despite that most of the previous research on a professional culture focused on observing and characterizing it instead of examining its impact on workrelated behaviors and interactions in health professions, in pharmacy research, recent studies became oriented toward examining correlations between professional culture and different pharmaceutical activities. A study examined the role of the professional culture of pharmacy in the independent prescribing by pharmacists in Canada, found that pharmacists 'professional culture influenced their adoption of such services (Rosenthal, Houle, et al., 2015).Within the same goals of our research, a study conducted in Canada to investigate some relationships between the professional culture of community pharmacists and the provision of clinical pharmacy services found that pharmacists who give a greater value for cultural factors such as competitiveness and innovation can provide more and more advanced services (Rosenthal et al., 2016). Another study that examined the relationship between the professional culture of community pharmacists and the provision of MTM services in the United States found significant relationships between some cultural factors and pharmacists' provision of MTM services (Rosenthal & Holmes, 2018).

# Chapter Three

#### Methodology

#### 3.1 Study design.

This research utilized a quantitative observational approach. A crosssectional study was conducted through an online questionnaire.

#### 3.2 Study Population.

This study targeted community pharmacists who work in community pharmacies in different areas of the West Bank in Palestine. The reason for choosing community pharmacists is based on the fact that the majority of pharmacists in Palestine work in community pharmacies (MOH, 2020). The total number of registered pharmacists in the West Bank was 5,152 in 2020. 287 pharmacists were working in the MOH, most of the rest work in community pharmacies (MOH, 2020).

#### 3.3 Sample size and sampling method.

According to the MOH annual report for 2020, the number of licensed pharmacies in the West Bank was 1,101 (MOH, 2020). Based on the Rosoft sample size calculator the minimum sample size for this study was 285 pharmacies (with 5% margin of error, 95% confidence interval and 50% response distribution). We took a convenience sample of 700 pharmacies from different regions of the West Bank.

The pharmacies list was taken from the Palestinian Pharmaceutical Association. Based on the MOH report (2020) and the Pharmaceutical Association reports the number of pharmacies in the nine governorate is as in table 1

| The governorate     | N of pharmacies | %Pharmacies |
|---------------------|-----------------|-------------|
| Jenin & Tubas       | 148             | 13.44%      |
| Tulkarm             | 86              | 7.81%       |
| Nablus & Salfit     | 201             | 18.26%      |
| Qalqiliya           | 50              | 4.54%       |
| Ramallah & Al Bireh | 168             | 15.26%      |
| Jericho & Al Aghwar | 18              | 1.63%       |
| Jerusalem           | 93              | 8.45%       |
| Bethlehem           | 93              | 8.45%       |
| Hebron              | 244             | 22.16%      |
| Total               | 1.101           | 100%        |

Table 1: Number of pharmacies in Palestinian governorates as they mentioned in the annual health report in 2020 (MOH, 2020).

*N*: number. %: percentage.

The data collection was initiated in March of 2021, and completed in May of 2021. The online questionnaire was sent to 700 community pharmacies which were distributed on the 9 regions of the West Bank. In each governorate the sample was taken conveniently. Community pharmacists received invitation messages through what's app instead of email \_due to the absence of organized communication network between the association and community pharmacies. The sending of messages to pharmacists in each governorate continued until the required number of responses was achieved in that area.

The required number of participants in any region was determined based on its proportion of the total number of community pharmacies in the West Bank and the previously calculated sample size (285). The required number of responses and the returned responses were distributed on the 9 governorates of the West Bank as the following:

| governorate         | N of required responses | N of returned responses |
|---------------------|-------------------------|-------------------------|
| Jenin & Tubas       | .13*285=37              | 38                      |
| Tulkarm             | .08*285=23              | 26                      |
| Nablus & Salfit     | .18*285=51              | 54                      |
| Qalqiliya           | .05*285=14              | 14                      |
| Ramallah & Al Bireh | .15*285=43              | 40                      |
| Jericho & Al Aghwar | .02*285=6               | 6                       |
| Jerusalem           | .09*285=24              | 28                      |
| Bethlehem           | .09*285=24              | 25                      |
| Hebron              | .22*285=63              | 63                      |
| Total               | 285                     | 294                     |

Table 2: Number of required responses and the returned responses ineach governorate.

N: number.

#### **3.4 Data collection tool.**

Online self-administrative questionnaire contained three parts; (Appendix 1, Appendix 2, Appendix 3) was used to collect the related data.

The first part was the demographic background section. It contained questions about the gender, scientific degree, years of experience, country of graduation and the governorate in which the participant work.

The second section was the pharmaceutical care part. It contained a list of 20 items divided in to four main dimensions of activities that cover the pharmaceutical care services provided in community pharmacies. This list was derived from the (BPCS), which is a "tool developed to measure pharmacists' effort to provide pharmaceutical care" (Odedina & Segal, 1996)

- 1. Direct patient care activities/ current pharmacy practice
- 2. Referral and consultation activities
- 3. Instrumental activities
- 4. Exploring the awareness of pharmaceutical care (Okpalanma et al., 2013).

Items in this section were statements of five Likert scale as the following:

Table 3: Description of provision level of pharmaceutical care activitiesin Likert scale.

| Description of provision level of pharmaceutical care activities | Likert scale point |
|--|--------------------|
| Never  | 1                  |
| Rarely   | 2                  |
| Sometimes  | 3                  |
| Often  | 4                  |
| Very often   | 5                  |

The third one was the professional culture part. It contained the organizational culture profile (OCP). The OCP was developed to measure the organizational culture; however, it was also used to measure the person-organizational fit, and the aggregate culture of an organization from the leaders' and individual members' perceptions and values (Sarros et al., 2005).

The previous literature on the organizational culture and its relation to health care behaviors did not provide a specific tool for pharmacy or professional culture measurement tool to be used in such studies. As such, the professional culture of pharmacy was examined with the OCP in many previous studies (Rosenthal, Hall, et al., 2015; Rosenthal et al., 2016; Rosenthal & Holmes, 2018).

The last version of the OCP was developed by Sarros and his colleges can be self-administered. The tool contains 28 items and compromises 7 cultural factors that are innovation, supportiveness, social responsibility, competitiveness, stability, performance orientation, and reward orientation.

The degree to which a group perceives value in each of these factors is determined by scoring responses to a particular subset of the items. Groups that perceive value in being "quick to take advantage of opportunities", "risk-taking", and taking "individual responsibility" may score higher on the factor of innovation. Groups that perceive value in being "team and people-oriented" and "sharing information freely" and that is
"collaborative" may score higher on supportiveness. Groups that perceive value in being "reflective" and "having a good reputation" and a "clear guiding philosophy" may score higher on social responsibility. Groups that perceive value in being "achievement-oriented", that "emphasize quality" and that value "being distinctive and different from other groups" may score higher on competitiveness. Groups that perceive value in being "calm" and "having low conflict" and a "sense of job security" may score higher on stability. Groups that perceive value in having "high expectations for performance" and "enthusiasm for their job" and that reflects to be "results-oriented" and "highly organized" may score higher on show orientation. Groups that perceive value in being "fair", "providing opportunities for professional growth", and having "high pay and praise for good performance" may score higher on reward orientation (Sarros et al., 2005).

Items in this section were statements of five Likert scale as the following:

| Table 4:   | Description    | of th | e value | e that | pharmacists | perceive | in | OCP |
|------------|----------------|-------|---------|--------|-------------|----------|----|-----|
| factors in | ı Likert scale | •     |         |        |             |          |    |     |

| Description of the value that pharmacists perceive in OCP factors | Likert scale point |
|---|--------------------|
| Not at all (strongly disagree)                                    | 1                  |
| Minimally (disagree)  | 2                  |
| Moderately (neutral)  | 3                  |
| Considerably (agree)  | 4                  |
| Very much (strongly agree)  | 5                  |

## 3.5 Validity and reliability.

The questionnaire was sent to 6 doctors working at An-Najah National University, two of them were from pharmacy department and the rest were from public health department to review the questionnaire items. The purpose of this evaluation was to determine whether the questions were comprehensible and able to measure the main domains of our study as they intended to. The reviewers' suggestions and comments were confined only on the sociodemographic section. All of these comments were taken into consideration to modify and improve the questionnaire's content. Then a pilot study on 30 pharmacists was conducted to make sure that the questionnaire items clear and can be interpreted by the study sample.

The reliability of the questionnaire was calculated on the responses of the pilot study participants through Cronbach Alpha Formula, the Table below shows the results;

 Table 5: Cronbach Alpha Formula for measuring the reliability of the questionnaire domains.

| Domain                       | Items | Cronbach Alpha |
|------------------------------|-------|----------------|
| pharmaceutical care services | 20    | .851           |
| Professional culture         | 28    | .957           |

Table (5) shows Cronbach Alpha for the questionnaire domains. They ranged from (0.85) for the first domain of (pharmaceutical care services) and (0.957) for the second domain of (Professional culture) which are accepted for the study purpose as internally consistent tools should have

 $0.70 \le \alpha$  (Tavakol & Dennick, 2011). It is worth noting that the responses of the pilot study were not included in the final analysis.

### **3.6 Ethical consideration.**

- This study was approved by the Institutional Review Board (IRB) of An-Najah National University (Appendix 4).
- In the introduction part of the online questionnaire the following information was clearly explained to the participants, they cannot pass to the next parts that contain the questionnaire items without reading this section and agreeing with its contents:
- 1. The aim of the study in addition to the potential benefits and risks
- 2. Confidentiality: The anonymity of participants was surly protected, as there was no identifiable information has been taken.
- 3. Right to withdraw: The participants were informed that they are voluntary participants. They can stop participation at any time they want
- 4. Statement of consent: Informed consent to participate this study was taken after ensuring that all the previous information was understood.

## **3.7 Variables.**

Independent variables: the OCP factors which are; competitiveness, social responsibility, innovation, supportiveness, performance orientation, reward orientation and stability, Dependent variable: the pharmaceutical care

dimensions which are; direct care activities, referral and consultation activities and instrumental activities

## 3.8 Data analysis.

The data collected were analyzed using (SPSS)version 21. The range has been calculated (5-1=4) then divided by (5) (4/5=0.8) in order to reach the length of the of the five-point Likert scale intervals. The following scale was used to describe the level of means and total means in both pharmaceutical care and professional culture parts

| Table | 6:  | Scale   | for  | description  | of   | means     | and | total | means | in | both |
|-------|-----|---------|------|--------------|------|-----------|-----|-------|-------|----|------|
| pharm | ace | eutical | care | and professi | iona | al cultur | ·e. |       |       |    |      |

| Likert scale | Description of provision | Description of the value  |  |  |  |
|--------------|--------------------------|---------------------------|--|--|--|
| intervals    | level of pharmaceutical  | that pharmacists perceive |  |  |  |
|              | care activities          | in OCP factors            |  |  |  |
| 1.00_1.80    | Never                    | Not at all                |  |  |  |
|              |                          | (strongly disagree)       |  |  |  |
| 1.81_2.60    | Rarely                   | Minimally (disagree)      |  |  |  |
| 2.61_3.40    | Sometimes                | Moderately (neutral)      |  |  |  |
| 3.41_4.20    | Often                    | Considerably (agree)      |  |  |  |
| 4.21_5.00    | Very often               | Very much                 |  |  |  |
|              |                          | (strongly agree)          |  |  |  |

The statistical process used in this study includes the following:

- Cronbach Alpha formula to measure the reliability of the study tool.
- Means, standard deviation and percentages to describe the study sample, and show the ratio weights of the study tool items (Descriptive statistics).

- Independent Sample t- test to show the differences attributed to the variable of gender and country of graduation.
- One Way ANOVA to show the differences attributed to the variables of age, qualification and experience followed by LSD (least significant difference)
- Linear regression test in order to show the relationship between the OCP factors (independent variables) and the pharmaceutical care activities (dependent variables).

## **Chapter Four**

## **Results**

## 4.1 Sample characteristics.

| Table  | e 7: | Distribut | tion o | of | percentage     | of  | participants | according | to | their |
|--------|------|-----------|--------|----|----------------|-----|--------------|-----------|----|-------|
| socioo | lem  | ographic  | char   | ac | cteristics (N= | =29 | 94).         |           |    |       |

| Characteristic         | Class                 | Ν     | %      |
|------------------------|-----------------------|-------|--------|
| Gender                 | male                  | 145   | 49.3   |
|                        | female                | 149   | 50.7   |
| Age                    | 20-30 years           | 94    | 32.0   |
|                        | 31-40 years           | 87    | 29.6   |
|                        | 41-50 years           | 86    | 29.3   |
|                        | >50 years             | 27    | 9.2    |
| Pharmacy qualification | Bachelors of pharmacy | 229   | 77.9   |
|                        | PharmD                | 11    | 3.7    |
|                        | Master degree         | 52    | 17.7   |
|                        | Ph. D                 | 2     | .7     |
|                        | less than 5 years     | 58    | 19.7   |
| Years of pharmacy      | 5-10 years            | 79    | 26.9   |
| experience             | 10-15 years           | 63    | 21.4   |
|                        | >15 years             | 94    | 32.0   |
| Country of graduation  | Outside Palestine     | 128   | 43.5   |
|                        | Palestine             | 166   | 56.5   |
| Governorate            | Bethlehem             | 25    | 8.5    |
|                        | Hebron                | 63    | 21.4   |
|                        | Jenin                 | 38    | 12.9   |
|                        | Jericho               | 6     | 2.0    |
|                        | Jerusalem             | 28    | 9.5    |
|                        | Nablus                | 54    | 18.4   |
|                        | Qalqilya              | 14    | 4.8    |
|                        | Ramallah              | 40    | 13.6   |
|                        | Tulkarm               | 26    | 8.8    |
| Age                    | Mean $\pm$ (SD)       | 37.57 | ±9.559 |

N: number. %: percentage. S.D: standard deviation

A total 294 pharmacists completed the questionnaire, making the response rate of 42%. The percentage of female respondents was 50.7%, the mean age of respondents was  $(37.5\pm9.56)$ . Respondents who have a bachelor

degree were 77.9%, and pharmacists who graduated from Palestinian

universities were 56.5%.

## **4.2** Description of pharmaceutical care activities provided by community pharmacists.

| Table  | 8:    | Distribution      | (Means,     | Standard    | <b>Deviations</b> ) | of    | the |
|--------|-------|-------------------|-------------|-------------|---------------------|-------|-----|
| pharma | aceut | tical care servio | ces provido | ed in commu | inity pharmac       | ists. |     |

| Dimension of    | Activities of            | Mean±      | level of    | Total        | level of |
|-----------------|--------------------------|------------|-------------|--------------|----------|
| pharmaceutical  | pharmaceutical care      | SD         | statement's | Mean±        | total    |
| care activities |                          |            | mean        | SD           | mean     |
| Direct patient  | Asked patient            | 4.24 ±     | Very often  | 3.9031±      | Often    |
| care activities | questions to access      | 0.607      |             | 0.518        |          |
|                 | actual patterns of use   |            |             |              |          |
|                 | of medication            |            |             |              |          |
|                 | Asked patient            | $4.00 \pm$ | Often       |              |          |
|                 | questions to find out-   | 0.706      |             |              |          |
|                 | about perceived          |            |             |              |          |
|                 | effectiveness of drugs   |            |             |              |          |
|                 | he or she was taking.    |            |             |              |          |
|                 | Asked patient            | 3.95 ±     | Often       |              |          |
|                 | questions to ascertain   | 0.677      |             |              |          |
|                 | whether therapeutic      |            |             |              |          |
|                 | objectives were          |            |             |              |          |
|                 | realized.                |            |             |              |          |
|                 | Asked patient            | 3.91±      | Often       |              |          |
|                 | questions to find out if | 0.868      |             |              |          |
|                 | he or she might be       |            |             |              |          |
|                 | experiencing drug-       |            |             |              |          |
|                 | related problems.        |            |             |              |          |
|                 | Implemented a            | $3.86 \pm$ | Often       |              |          |
|                 | strategy to resolve (or  | 0.751      |             |              |          |
|                 | prevent) drug related    |            |             |              |          |
|                 | problems                 |            |             |              |          |
|                 | Follow up patients to    | 3.46 ±     | Often       |              |          |
|                 | evaluate their progress  | 0.824      |             |              |          |
|                 | towards the drug         |            |             |              |          |
|                 | therapy objectives.      |            |             |              |          |
|                 | Discussed patients       | 3.22 ±     | Sometimes   | $3.4626 \pm$ | Often    |
| Referral and    | drug therapy problems    | 1.062      |             | 0.607        |          |
| consultation    | with other pharmacists   |            |             |              |          |
| activities      | in my practice.          |            |             |              |          |
|                 | Made referrals to other  | 2.49 ±     | Sometimes   |              |          |
|                 | pharmacists whenever     | 1.034      |             |              |          |
|                 | it was in the best       |            |             |              |          |
|                 | interest of the patient. |            |             |              |          |

|              | Referred patients to       | 4.47 ±          | Very o | ften     |              |       |
|--------------|----------------------------|-----------------|--------|----------|--------------|-------|
|              | specific physician         | 0.737           | -      |          |              |       |
|              | when necessary.            | when necessary. |        |          |              |       |
|              | Communicated               | 3.67 ±          | Ofte   | n        |              |       |
|              | patients' progress on      | 1.034           |        |          |              |       |
|              | their drug therapy to      |                 |        |          |              |       |
|              | their physician or care    |                 |        |          |              |       |
|              | providers.                 |                 |        |          |              |       |
|              | How often do you           | 4.63 ±          | Very o | ften     | $4.2883 \pm$ | Very  |
|              | counsel all patients       | 0.551           |        |          | 0.443        | often |
| Instrumental | coming to this             |                 |        |          |              |       |
| activities   | pharmacy?                  |                 |        |          |              |       |
|              | Used a quiet location      | $3.56 \pm$      | Ofte   | n        |              |       |
|              | for patient counseling     | 0.924           |        |          |              |       |
|              | Double checked each        | $4.78 \pm$      | Very o | ften     |              |       |
|              | prescription prepared      | 0.493           |        |          |              |       |
|              | by other personnel         |                 |        |          |              |       |
|              | before giving              |                 |        |          |              |       |
|              | medicines to patients.     |                 |        |          |              |       |
|              | Used appropriate           | 4.19 ±          | Ofte   | n        |              |       |
|              | information services to    | 0.712           |        |          |              |       |
|              | provide drug               |                 |        |          |              |       |
|              | information when           |                 |        |          |              |       |
|              | necessary.                 |                 |        |          |              |       |
|              | Pharmaceutical care (total |                 | 3.88   | 46±0.402 | Often        |       |

S.D: standard deviation

Table (8) shows that the total degree of the pharmaceutical care services provided by community pharmacists was ( $3.88 \pm 0.402$ ). The lowest mean was for the referral activities ( $3.46 \pm 0.607$ ), because the item "Made referrals to other pharmacists whenever it was in the best interest of the patient" in this dimension had the lowest mean between pharmaceutical care items ( $2.49 \pm 1.034$ ). The highest mean was given to the instrumental activities ( $4.288 \pm 0.443$ ). In this dimension, the highest mean was for the item of "Double-checked each prescription prepared by other personnel before giving medicines to patients" ( $4.78 \pm 0.493$ ).

Table 9: Distribution of percentages of the Awareness ofpharmaceutical care among community pharmacists (N=294).

|      | Statement                           | Level     | Ν   | %     |
|------|-------------------------------------|-----------|-----|-------|
|      | Have you heard about the concept of | Yes       | 294 | 100.0 |
|      | pharmaceutical care?                | No        | 0   | 0     |
|      | How often do you try to provide     | Never     | 2   | .7    |
| ė    | pharmaceutical care to your         | Sometimes | 84  | 28.6  |
| car  | patients?                           | Always    | 208 | 70.7  |
| cal  | How often do you make               | Never     | 5   | 1.7   |
| utic | psychological commitment and        | Sometimes | 105 | 35.7  |
| ace  | effort required to improve their    | Always    | 184 | 62.6  |
| rm8  | outcome                             |           |     |       |
| hai  | How often do you inquire of         | Never     | 30  | 10.2  |
| of p | patient's satisfaction with your    | Sometimes | 171 | 58.2  |
| SS C | services in order to evaluate your  | Always    | 93  | 31.6  |
| nes  | work                                |           |     |       |
| are  | How often do you participate in     | Never     | 58  | 19.7  |
| 1 M  | higher educational programs to      | Sometimes | 177 | 60.2  |
| ł    | maintain and improve your           | Always    | 59  | 20.1  |
|      | competence?                         |           |     |       |
|      | How often do you provide general    | Never     | 0   | 0     |
|      | medical information to patients?    | Sometimes | 90  | 30.6  |
|      |                                     | Always    | 204 | 69.4  |

*N*: number. %: percentage.

Table (9) All participants reported that they already heard about the concept of pharmaceutical care 100%. However, 60% of respondents reported that they sometimes participate in higher education programs while, 69.4% reported that they always provide general medical information to patients.

# 4.3 Description of professional culture of community pharmacy.

## Table 10: Distribution of (Means, Standard Deviations) OrganizationalCulture Profile (OCP) factors.

| Cultural<br>factors | Cultural items   | Mean±<br>(SD)    | Description/le<br>vel of<br>statement<br>mean | Total<br>Mean±<br>(SD) | Description<br>/level of<br>total mean |  |
|---------------------|--|------------------|---|------------------------|--|--|
| Competitiveness     | Achievement orientation                                  | 3.85 ±0.901      | Agree   | 3.7730±<br>0.705       | Agree                                  |  |
|                     | An emphasis on quality                                   | $4.26 \pm 0.745$ | Strongly agree                                |                        |  |  |
|                     | Being<br>distinctive _<br>being different<br>from others | 3.69 ± 0.985     | Agree   |                        |  |  |
|                     | Being competitive  | 3.29 ± 1.097     | Neutral                                       |                        |  |  |
| Social              | Being reflective   | $3.59\pm0.930$   | Agree   | 3.6276±                | Agree                                  |  |
| Responsibility      | Having a good reputation                                 | $4.05 \pm 0.776$ | Agree   | 0.676                  |  |  |
|                     | Being socially responsible                               | $3.95 \pm 0.865$ | Agree   |                        |  |  |
|                     | Having a clear<br>guiding<br>philosophy                  | 2.93 ± 1.165     | Neutral                                       |                        |  |  |
| Supportiveness      | Being team oriented                                      | 3.36 ± 1.087     | Neutral                                       | 3.9039±<br>0.625       | Agree                                  |  |
|                     | Sharing<br>information<br>freely                         | 3.91 ± 0.840     | Agree   |                        |  |  |
|                     | Being people<br>oriented                                 | $4.18 \pm 0.741$ | Agree   |                        |  |  |
|                     | Collaboration  | $4.17\pm0.745$   | Agree   |                        |  |  |
| Innovation          | Being<br>innovative                                      | 3.22 ± 0.961     | Neutral                                       | 3.3316±<br>0.677       | Neutral                                |  |
|                     | Quick to take<br>advantage of<br>opportunities           | 3.12 ± 0.938     | Neutral                                       |                        |  |  |
|                     | Risk taking  | $2.63 \pm 1.112$ | Neutral                                       |                        |  |  |

|                            | Taking<br>individual<br>responsibility         | $4.35 \pm 0.694$ | Strongly agree |                  |             |
|----------------------------|--|------------------|----------------|------------------|-------------|
| Reward                     | Fairness                                       | $4.23\pm0.658$   | Strongly agree | 4.1803±          | Agree       |
| Orientation                | Opportunities<br>for professional<br>growth    | 4.03 ± 0.836     | Agree          | 0.553            |             |
|                            | High pay for<br>good<br>performance            | $4.25 \pm 0.638$ | Strongly agree |                  |             |
|                            | Praise for good performance                    | $4.20 \pm 0.660$ | Agree          |                  |             |
| Performance<br>Orientation | Having high<br>expectations for<br>performance | 3.93 ± 0.716     | Agree          | 3.9252±<br>0.614 | Agree Agree |
|                            | Enthusiasm for the job                         | $3.89 \pm 0.850$ | Agree          |                  |             |
|                            | Being results oriented                         | 3.96 ± 0.763     | Agree          |                  |             |
|                            | Being highly organized                         | 3.92 ± 0.839     | Agree          |                  |             |
| Stability                  | Stability                                      | $3.70\pm0.825$   | Agree          | 3.6743±          | Agree       |
|                            | Being calm                                     | $3.60\pm0.925$   | Agree          | 0.725            |             |
|                            | Security of employment                         | 3.67 ± 0.990     | Agree          |                  |             |
|                            | Low conflict                                   | $3.73 \pm 0.960$ | Agree          |                  |             |

S.D: standard deviation

Table (10) revealed that the highest mean was given to reward orientation factor (4.18  $\pm$  0.553), and the lowest mean was for innovation factor (3.33  $\pm$  0.677).

4.4 Statistical differences in pharmaceutical care activities provided by community pharmacists attributed to their sociodemographic characteristics.

Table 11: Results of independent sample t test for the pharmaceutical care services provided by community pharmacists attributed to the variable of gender.

| Pharmaceutical care dimensions | Gender | Ν   | Mean   | S. D   | t      | Sig.* |
|--------------------------------|--------|-----|--------|--------|--------|-------|
| direct patient care            | male   | 145 | 3.8701 | .55952 | -1.075 | .283  |
| activities                     | female | 149 | 3.9351 | .47446 |        |       |
| Referral and                   | male   | 145 | 3.3345 | .56843 | -3.644 | .000* |
| consultation activities        | female | 149 | 3.5872 | .61918 |        |       |
| instrumental                   | male   | 145 | 4.2431 | .45733 | -1.730 | .085  |
| activities                     | female | 149 | 4.3322 | .42558 |        |       |

N: number. *S.D*: standard deviation *t*: the t test statistic. *Sig*: p-value. \*: the mean difference is significant at the 0.05 level

Table (11) shows that female pharmacists (mean =  $3.58 \pm 0.619$ ) provided more referral and consultation activities than male pharmacists (mean =  $3.33 \pm 0.568$ ).

Table 12: Results of One-Way ANOVA and LSD post hoc for the pharmaceutical care services provided by community pharmacists attributed to their age categories.

| Pharmaceutical  | F      | Sig.   | Age         | Age         | Mean           |
|-----------------|--------|--------|-------------|-------------|----------------|
| care dimension  |        |        | category    | category    | differences    |
|                 |        |        | <b>(I</b> ) | <b>(J</b> ) | ( <b>I-J</b> ) |
| Referral and    | 14.407 | 0.000* | 20 _30      | 31_40       | .21916*        |
| consultation    |        |        | years       | years       |                |
| activities      |        |        | 20 _30      | 41 _50      | .48676*        |
| uotivitios      |        |        | years       | years       |                |
|                 |        |        | 20 _30      | > 50        | .38071*        |
|                 |        |        | years       | years       |                |
|                 |        |        | 31_40       | 41 _50      | .26761*        |
|                 |        |        | years       | years       |                |
|                 |        |        | 31_40       | > 50        | .16156         |
|                 |        |        | years       | years       |                |
|                 |        |        | 41 _50      | > 50        | 10605          |
|                 |        |        | years       | years       |                |
| Direct patient  | 1.301  | 0.788  |             |             |                |
| care activities |        |        |             |             |                |
| Instrumental    | 0.539  | 0.351  |             |             |                |
| activities      |        |        |             |             |                |

*Sig:* p-value. *F:* variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (12) shows that there Statistically significant differences in the provision of referral and consultation activities. The statistical differences are between (20-30) years old pharmacists and other age groups in favor of (20-30) years old, which means that younger pharmacists provide these activities more than older pharmacists.

Table 13: Results of One-Way ANOVA of the pharmaceutical care services provided by community pharmacists attributed to the variable of qualification.

| Type of pharmaceutical care services | F     | Sig.  |
|--------------------------------------|-------|-------|
| Direct patient care activities       | 1.571 | 0.197 |
| Referral and consultation activities | .0827 | .0480 |
| Instrumental activities              | 0.851 | 0.467 |

Sig: p-value. F: variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (13) shows that there are no statistically significant differences in the

provision of pharmaceutical care services between community pharmacists

regarding their level of qualification.

Table 14: Results of One-Way ANOVA and LSD post hoc for the pharmaceutical care services provided by community pharmacists attributed to the variable of experience.

| Pharmaceutical care dimension | F      | Sig.   | Experience<br>category (I) | Experience<br>category (J) | Mean<br>differences |
|-------------------------------|--------|--------|----------------------------|----------------------------|---------------------|
|                               |        |        |                            |                            | ( <b>I-J</b> )      |
| Pharmaceutical                | 5.268  | 0.001* | <5 years                   | 5_10 years                 | .00473              |
| care services                 |        |        | <5 years                   | 10_15 years                | .08128              |
|                               |        |        | <5 years                   | >15 years                  | .22148*             |
|                               |        |        | 5_10 years                 | 10_15 years                | .07655              |
|                               |        |        | 5_10 years                 | >15 years                  | .21675*             |
|                               |        |        | 10_15 years                | >15 years                  | .14020*             |
| <b>Referral and</b>           | 14.092 | 0.000* | <5 years                   | 5_10 years                 | .07802              |
| consultation                  |        |        | <5 years                   | 10_15 years                | .20224              |
| activities                    |        |        | <5 years                   | >15 years                  | .53604*             |
|                               |        |        | 5_10 years                 | 10_15 years                | .12422              |
|                               |        |        | 5_10 years                 | >15 years                  | .45802*             |
|                               |        |        | 10_15 years                | >15 years                  | .33380*             |
| Direct patient                | 0.811  | 0.489  |                            |                            |                     |
| care activities               |        |        |                            |                            |                     |
| Instrumental                  | 0.412  | 0.745  |                            |                            |                     |
| activities                    |        |        |                            |                            |                     |

*Sig:* p-value. *F:* variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (14) shows that there are statistically significant differences in providing referral and consultation activities among participants according to their experience. Pharmacists with less experience (less than 5 years and 5-10 years and 10- 15 years) provided more pharmaceutical care and referral and consultation activities than pharmacists with (more than 15 years).

Table 15: Results of independent sample t test for the pharmaceutical care services provided by community pharmacists attributed to the variable of country of graduation.

| Dimension of pharmaceutical<br>care services | Country of<br>Graduation | N   | Mean   | S. D   | t     | Sig.*  |
|--|--------------------------|-----|--------|--------|-------|--------|
| direct patient care activities               | Palestine                | 166 | 3.8946 | .49315 | 0.319 | 0.750  |
|  | Outside<br>Palestine     | 128 | 3.9141 | .55098 |       |        |
| referral and consultation activities         | Palestine                | 166 | 3.5964 | .61092 | 4.439 | 0.000* |
|  | Outside<br>Palestine     | 128 | 3.2891 | .55808 |       |        |
| instrumental activities                      | Palestine                | 166 | 4.2982 | .44799 | 0.437 | 0.662  |
|  | Outside<br>Palestine     | 128 | 4.2754 | .43792 |       |        |

N: number. *S.D*: standard deviation *t*: the t test statistic. *Sig*: p-value. \*: the mean difference is significant at the 0.05 level

Table (15) shows that there are statistically significant differences in providing referral and consultation activities among participants according to their country of graduation respondents who graduated from Palestinian universities (mean = 3.59) provide more referral and consultation activities

when compared to respondents who graduated from universities in other countries (mean = 2.14).

# 4.5 Statistical differences in OCP factors that pharmacist give value for attributed to their sociodemographic characteristics.

 Table 16: Results of independent sample t test for OCP factors that

pharmacist give value for attributed to the variable of gender.

| Cultural factors | gender | Ν   | Mean   | S.D    | t     | Sig.   |
|------------------|--------|-----|--------|--------|-------|--------|
| Competitiveness  | male   | 145 | 3.8207 | .71668 | 1.145 | 0.253  |
|                  | female | 149 | 3.7265 | .69344 |       |        |
| social           | male   | 145 | 3.6207 | .69228 | -     | 0.864  |
| responsibility   | female | 149 | 3.6342 | .66241 | 0.171 |        |
| Supportiveness   | male   | 145 | 3.8810 | .61101 | -     | 0.537  |
|                  | female | 149 | 3.9262 | .64101 | 0.618 |        |
| Innovation       | male   | 145 | 3.4103 | .68571 | 1.976 | 0.049* |
|                  | female | 149 | 3.2550 | .66174 |       |        |
| reward           | male   | 145 | 4.2000 | .49704 | 0.602 | 0.547  |
| orientation      | female | 149 | 4.1611 | .60409 |       |        |
| performance      | male   | 145 | 3.9069 | .57126 | -     | 0.616  |
| orientation      | female | 149 | 3.9430 | .65446 | 0.503 |        |
| Stability        | male   | 145 | 3.7724 | .61089 | 2.313 | .021*  |
|                  | female | 149 | 3.5789 | .81222 | 1     |        |

N: number. S.D: standard deviation. t: the t test statistic. Sig: p-value\*: the mean difference is significant at the 0.05 level.

Table (16) shows that there are statistically significant differences in the value that pharmacists gave to factors of innovation and stability regarding to their gender. Respondents perceived greater value in satiability factor (mean =3.77) and factor of innovation (mean = 3.41) than female respondents (mean = 3.57) for stability and (mean = 3.25) for innovation.

Table 17: Results of One-Way ANOVA and LSD post hoc for OCP factors that pharmacist give value for attributed to their age categories.

| Cultural factors           | F       | Sig.   | Age category  | Age category  | Mean differences |
|----------------------------|---------|--------|---------------|---------------|------------------|
| 0 1                        | 4 1 1 7 | 0.007* | (1)           | (J)           | (I-J)            |
| Social                     | 4.115   | 0.00/* | 20_30 years   | 31 _ 40 years | .31/16*          |
| Responsibility             |         |        | 20 _30 years  | 41_50 years   | .05066           |
|                            |         |        | 20 _30 years  | > 50 years    | .00522           |
|                            |         |        | 31 _ 40 years | 41_50 years   | 26651*           |
|                            |         |        | 31 _ 40 years | > 50 years    | 31194*           |
|                            |         |        | 41 _50 years  | > 50 years    | 04543            |
| Innovation                 | 2.748   | 0.043* | Age category  | Age category  | Mean differences |
|                            |         |        | (I)           | <b>(J)</b>    | ( <b>I-J</b> )   |
|                            |         |        | 20 _30 years  | 31 _ 40 years | .24438*          |
|                            |         |        | 20_30 years   | 41_50 years   | .10230           |
|                            |         |        | 20_30 years   | > 50 years    | .31462*          |
|                            |         |        | 31_40 years   | 41_50 years   | 14207            |
|                            |         |        | 31 _ 40 years | > 50 years    | .07024           |
|                            |         |        | 41 _50 years  | > 50 years    | .21232           |
| Stability                  | 3.193   | 0.024* | Age category  | Age category  | Mean differences |
|                            |         |        | (I)           | <b>(J)</b>    | ( <b>I-J</b> )   |
|                            |         |        | 20 _30 years  | 31_40 years   | 04228            |
|                            |         |        | 20 _30 years  | 41 _50 years  | 21499*           |
|                            |         |        | 20 _30 years  | > 50 years    | 41105*           |
|                            |         |        | 31 _ 40 years | 41 _50 years  | 17271            |
|                            |         |        | 31_40 years   | > 50 years    | 36877*           |
|                            |         |        | 41 _50 years  | > 50 years    | 19606            |
| Competitiveness            | 0.767   | 0.513  |               |               |                  |
| Supportiveness             | 1.803   | 0.147  |               |               |                  |
| Reward<br>Orientation      | 1.367   | 0.253  |               |               |                  |
| Performance<br>Orientation | 0.292   | 0.831  |               |               |                  |

Sig: p-value. F: variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (17) shows that there are statistically significant differences in the value that pharmacists gave to factors of social responsibility, innovation and stability regarding to their age. Pharmacists who are (20-30, 41-50, and

>50) years old perceived greater value in social responsibility factor than pharmacists who are (31-40) years old. While pharmacists who are (20-30) years old perceived greater value in innovation factor than pharmacists who are (31-40 and >50) years old. It also shows that pharmacists who are (41-50 and >50) years old perceived greater value in stability factor than pharmacists who are (20-30) years old, and pharmacists who are (>50) years old perceive greater value in stability factor than (41-50) years old pharmacists.

| Cultural factors           | F     | Sig.   | Qualification<br>category (I) | Qualification<br>category (J) | Mean<br>Differences (I-J) |
|----------------------------|-------|--------|-------------------------------|-------------------------------|---------------------------|
| Social responsibility      | 3.946 | 0.009* | Bachelor                      | PharmD                        | 38686                     |
|                            |       |        | Bachelor                      | Master                        | 21597*                    |
|                            |       |        | Bachelor                      | Ph.D.                         | -1.05731*                 |
|                            |       |        | PharmD                        | Master                        | .17089                    |
|                            |       |        | PharmD                        | Ph.D.                         | 67045                     |
|                            |       |        | Master                        | Ph.D.                         | 84135                     |
| Competitiveness            | 2.181 | 0.090  |                               |                               |                           |
| Supportiveness             | 1.013 | 0.387  |                               |                               |                           |
| Innovation                 | 1.619 | 0.185  |                               |                               |                           |
| <b>Reward Orientation</b>  | 0.852 | 0.466  |                               |                               |                           |
| Performance<br>Orientation | 0.625 | 0.599  |                               |                               |                           |
| Stability                  | 0.402 | 0.751  |                               |                               |                           |

Table 18: Results of One-Way ANOVA and LSD post hoc for OCP factors that pharmacist give value for attributed to the variable of qualification.

*Sig:* p-value. *F:* variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (18) shows that there are statistically significant differences in the value that pharmacists give to social responsibility factor, regarding to their

qualification. Pharmacists with Master and Ph. D degrees perceived greater

value in social responsibility factor than pharmacists with bachelor degree.

Table 19: Results of One-Way ANOVA and LSD post hoc for OCP factors that pharmacist give value for attributed to their experience.

| Cultural factors           | F     | Sig.   | Experience<br>category (I) | Experience<br>category (J) | Mean<br>differences(I-J) |
|----------------------------|-------|--------|----------------------------|----------------------------|--------------------------|
|                            | 3.166 | 0.025* | >15 years                  | 10_15 years                | .23970*                  |
|                            |       |        | >15 years                  | 5_10 years                 | .20193*                  |
| Reward                     |       |        | >15 years                  | <5 years                   | .08767                   |
| Orientation                |       |        | 10_15 years                | 5_10 years                 | 03777                    |
|                            |       |        | 10_15 years                | <5 years                   | 15203                    |
|                            |       |        | 5_10 years                 | <5 years                   | 11425                    |
|                            | 3.848 | 0.010* | >15 years                  | 10_15 years                | .28508*                  |
| Stability                  |       |        | >15 years                  | 5_10 years                 | .30437*                  |
|                            |       |        | >15 years                  | <5 years                   | .31997*                  |
|                            |       |        | 10_15 years                | 5_10 years                 | .01929                   |
|                            |       |        | 10_15 years                | <5 years                   | .03489                   |
|                            |       |        | 5_10 years                 | <5 years                   | .01560                   |
| Competitiveness            | 0.258 | 0.856  |                            |                            |                          |
| Social                     | 2.541 | 0.057  |                            |                            |                          |
| Responsibility             |       |        |                            |                            |                          |
| Supportiveness             | 1.799 | 0.148  |                            |                            |                          |
| Innovation                 | 2.069 | 0.104  |                            |                            |                          |
| Performance<br>Orientation | 1.422 | 0.236  |                            |                            |                          |

*Sig:* p-value. *F:* variation between groups / variation within groups. \*: the mean difference is significant at the 0.05 level.

Table (19) shows that there are statistically significant differences in the value that pharmacists gave to factors of reward orientation and stability regarding their experience. In details, pharmacists with (>15) years of experience perceived greater value in reward orientation factor than

pharmacists with experience of (5-10 and 10-15) years. Pharmacists with (>15) years of experience perceived greater value in stability factor than pharmacists with lower level of experience (>5, 5-10, and 10-15) years.

| Cultural factors      | Country of graduation | Ν   | Mean   | S.D    | t      | Sig.*  |
|-----------------------|-----------------------|-----|--------|--------|--------|--------|
| Competitiveness       | Palestine             | 166 | 3.7063 | .67922 | -1.852 | 0.065  |
| •                     | Outside               | 128 | 3.8594 | .73156 |        |        |
|                       | Palestine             |     |        |        |        |        |
| social responsibility | Palestine             | 166 | 3.5271 | .63665 | -2.938 | 0.004* |
|                       | Outside               | 128 | 3.7578 | .70567 |        |        |
|                       | Palestine             |     |        |        |        |        |
| Supportiveness        | Palestine             | 166 | 3.8193 | .62923 | -2.669 | 0.008* |
|                       | Outside               | 128 | 4.0137 | .60616 |        |        |
|                       | Palestine             |     |        |        |        |        |
| Innovation            | Palestine             | 166 | 3.2139 | .65207 | -3.460 | 0.001* |
|                       | Outside               | 128 | 3.4844 | .68069 |        |        |
|                       | Palestine             |     |        |        |        |        |
| reward orientation    | Palestine             | 166 | 4.1039 | .59997 | -2.724 | 0.007* |
|                       | Outside               | 128 | 4.2793 | .47020 |        |        |
|                       | Palestine             |     |        |        |        |        |
| performance           | Palestine             | 166 | 3.8298 | .62525 | -3.076 | 0.002* |
| orientation           | Outside               | 128 | 4.0488 | .57854 |        |        |
|                       | Palestine             |     |        |        |        |        |
| Stability             | Palestine             | 166 | 3.5693 | .77929 | -2.944 | 0.004* |
|                       | Outside               | 128 | 3.8105 | .62569 |        |        |
|                       | Palestine             |     |        |        |        |        |

Table 20: Result of independent sample t test for OCP factors that pharmacist give value for attributed to the variable of country of graduation.

N: number. *S.D*: standard deviation. *t*: the t test statistic. *Sig*: p-value \*: the mean difference is significant at the 0.05 level.

Table (20) respondents who graduated from universities outside Palestine perceived greater value in social responsibility, supportiveness, innovation, reward orientation, performance orientation and stability factors when compared to respondents who graduated from Palestinian universities.

4.6 The relationship between the OCP factors and pharmaceutical care services provided by community pharmacists.

|                 |                       | <u> </u> | ~~ <b>~</b> |      | 1 .   | ~     |
|-----------------|-----------------------|----------|-------------|------|-------|-------|
| Dependent       | Independent factor    | В        | SE B        | β    | t     | Sig.  |
| factor          |                       |          |             |      |       |       |
| direct patient  | Competitiveness       | .200     | .059        | .272 | 3.384 | .001* |
| care activities | social responsibility | 065      | .057        | 085  | -1.14 | .253  |
|                 | supportiveness        | .077     | .062        | .093 | 1.244 | .215  |
|                 | innovation            | 014      | .062        | 018  | 220   | .826  |
|                 | reward orientation    | .037     | .084        | .040 | .447  | .656  |
|                 | performance           | .136     | .079        | .161 | 1.717 | .087  |
|                 | orientation           |          |             |      |       |       |
|                 | stability             | .026     | .052        | .036 | .496  | .621  |
| referral and    | Competitiveness       | .040     | .074        | .047 | .545  | .586  |
| consultation    | social responsibility | 122      | .071        | 136  | -1.71 | .088  |
| activities      | Supportiveness        | .313     | .077        | .323 | 4.082 | .000* |
|                 | Innovation            | 086      | .077        | 096  | -1.11 | .265  |
|                 | reward orientation    | .164     | .104        | .149 | 1.575 | .116  |
|                 | performance           | .021     | .099        | .021 | .213  | .831  |
|                 | orientation           |          |             |      |       |       |
| Instrumental    | Stability             | 200      | .065        | 239  | -3.09 | .002* |
| activities      | Competitiveness       | .126     | .050        | .200 | 2.495 | .013* |
|                 | social responsibility | 135      | .049        | 205  | -2.76 | .006* |
|                 | Supportiveness        | .219     | .053        | .310 | 4.170 | .000* |
|                 | Innovation            | .022     | .053        | .033 | .415  | .678  |
|                 | reward orientation    | .090     | .071        | .112 | 1.258 | .210  |
|                 | performance           | .005     | .068        | .007 | .072  | .943  |
|                 | orientation           |          |             |      |       |       |
|                 | Stability             | .000     | .044        | .000 | 006   | .995  |

 Table 21: Linear regression tests to determine the relationship between cultural factors and the provision of pharmaceutical care activities.

*B*: the unstandardized beta. *SE B*: the standard error for the unstandardized beta.  $\beta$ : the standardized beta. *t*: the t test statistic. *Sig*: p-value. \*: the mean difference is significant at the 0.05 level.

Table (21) shows that pharmacists who perceived greater value in competitiveness factor provided more direct care activities for their patients. Pharmacists who perceived greater values in supportiveness factor provided more referral activities to their patients, while those who perceive greater value in stability factor provide less referral activities. Pharmacists

who perceived greater values in factors of competitiveness, social responsibility and supportiveness provided more instrumental activities to their patients.

## Chapter five Discussion

This is the first study that investigated the pharmaceutical care practice using a BPCS derived tool, and the professional culture of pharmacy using the OCP and demonstrated a relationship between them. While this research is a preliminary insight in to the relationship between professional culture and Palestinian pharmacists' behavior, it should be seen as a starting step in encouraging pharmacy practitioners to improve contextrelated actions to practice change.

### 5.1 Pharmaceutical care services.

Results of this study showed that community pharmacists in Palestine begin to provide pharmaceutical care services more than before. In a study conducted in 2016 in Palestine, community pharmacists reported that they do not provide pharmaceutical care services as they have to (Al-Ramahi et al., 2016). This positive change in pharmacists' assessment may reflect a better understanding of the pharmaceutical care concept in general. A study conducted in European countries to compare the provision of pharmaceutical care found that pharmaceutical care practices in these countries evolved positively (Costa et al., 2017).

The most provided type of pharmaceutical care activities as the study participants reported was the instrumental activities. These activities referred to providing medical education, counseling, and informational support for patients (Odedina & Segal, 1996). These activities were found to be provided more than other types because they are related to more traditional areas of practice. These findings were closed to what was observed in a previous study related to pharmaceutical care in our country (Al-Ramahi et al., 2016). In that study, all respondents reported that dispensing medications, writing instructions, and explaining them to their patients were their primary focus. 74% of those pharmacists stated that they checked the appropriateness of the medication dose to their patients, 76% asked about allergies, and 58% checked the drug interactions (Al-Ramahi et al., 2016).

Some Palestinian stakeholders in the medical field believed that pharmacists are the most favorable healthcare practitioners in providing counseling for patients (Shawahna, 2020b). Providing educational services for patients either about their drug regimens or about their diseases by pharmacists was considered by a panel of various healthcare practitioners as key performance indicator of pharmaceutical care provision in these institutions (Shawahna, 2020b).

In the course of this study, the item of double-checking each prescription had the highest mean within the instrumental activities. Cordina et al., (2008) found that similar trends were observed in Kazakhstan, where the highest mean score was given to the instrumental activities dimension. The main reason of receiving the highest score in instrumental activities was that the prescription validation item in this study obtained the highest score. In Kazakhstan, pharmacists are legally mandated to assure the appropriateness of prescriptions. They are the responsible practitioners for any avoidable drug-related problems caused by prescribing or dispensing errors.

The referral activities in the (BPCS) considered as a measure of collegial interactions such as referral to and consultation with other health care providers to provide the best care for patients (Odedina & Segal, 1996). In the current study referral activities between pharmacists were found to be the lowest type of pharmaceutical care activities provided by the study participants. This may be caused by the absence of referral structures between pharmacists in Palestine (Sweileh et al., 2016). It also may be referred to pharmacist notion that other pharmacists may not provide a better quality of service than he/she would provide.

However, some Palestinian stakeholders and healthcare professionals realized that performing referral activities such as; participating in professional meetings and discussions in addition to providing medical recommendations and suggestions by pharmacists is an important indicator pharmaceutical care in these organizations (Shawahna, 2020a; Shawahna, 2020b).

A similar study in Nigeria indicated that referral activities between pharmacists and different health care providers had the least mean between referral activities, because of the poor referral system and the unnecessary competition between health care providers in their country (Nwafor et al., 2019). Another study suggested that the provision of referral and consultation activities may be affected by the number of prescriptions and the employed staff in the pharmacy (McDermott & Christensen, 2002). When the number of prescriptions decreased or the number of employed staff increased the obtainable time for referral and consultation activities will be increased (McDermott & Christensen, 2002).

However, some authors suggested that the low level of referral and consultation activities in some European countries means more efficient and independent ways of practice by community pharmacists in providing care and resolving drug-related issues (Costa et al., 2017). Additionally, the remuneration for some services by a third party may also decrease the level of referral activities (Hughes et al., 2010). For example; community pharmacists have been remunerated for providing diabetes management in Portugal (Bulajeva et al., 2014).

In this study the direct patient care dimension had a high mean  $(3.9 \pm 0.51)$  in general. In this dimension, the lowest mean was given to the item of following patients up to evaluate their progress  $(3.46 \pm 0.82)$ . the fact that may explain these findings was that the lake of documentation system in community pharmacies in Palestine make the following up practice and implementing therapeutic plans very difficult (Al-Ramahi et al., 2016). Community pharmacists in Palestine rarely use technology and mostly

dispense medicines manually (Al-Ramahi et al., 2016). This in turn limited the provision of comprehensive pharmaceutical care services.

Some medical stakeholders in Palestine stated that one of the main quality indicators of pharmaceutical care in integrative healthcare institutions is providing direct patient care activities such as assessing medications use, making sure of drug effectiveness, defining medication related problems and providing appropriate solutions, collecting patients' history, documenting medications used, creating medical therapeutic plans and following patient implementation of these plans (Shawahna, 2020b).

Similarly, findings of a study conducted in Kazakhstan relieved that the low score given to the direct care dimension may be related to the low score gained in implementation therapeutic plans to resolve drug-related problems and following up these plans (Cordina et al., 2008). In European countries, different studies reported low provision level of direct patient care activities that need documentation, following patients up and implementation of therapeutic plans (Costa et al., 2017). The time-consuming nature of these activities and the fact that providing these activities requiring pharmacists to provide the whole patient care parts of pharmaceutical care stands behind the low provision of direct care activities (Costa et al., 2017).

In general, increased awareness of pharmaceutical care explains the high means of the most pharmaceutical care activities reported by participants of the study. Unfortunately, more than 50% of the study participants are not always interested in participating in higher educational programs and evaluating patients' satisfaction. This indicating that pharmacists are away from practicing untraditional activities. The unsatisfactory level of engagement in higher education programs may be attributed to the fact that pharmacists are not legally required to obtain several credits to be relicensed (Sweileh et al., 2009). However, some Palestinian stakeholders stated that continuous education is very important io achieve the needed professional development, since pharmacy profession is in continuous improvement (Shawahna, 2020b).

Like this study findings, review conducted in European Countries found that requiring patient satisfaction obtained a low mean score within instrumental and awareness items (Hughes, et al., 2010). In many countries continues education and training have been implemented in different pharmaceutical institutions to keep pharmacists updated with new information to improve the pharmaceutical care practice (Cordina et al., 2008; Namara et al., 2009).

In this study younger respondents who have less experience provide pharmaceutical care services especially referral and consultation activities more than older respondents who have more years of experience. In general, this may be attributed to the fact that the practice of pharmaceutical care was introduced recently in Palestine with the first step of establishing the doctor of pharmacy (pharm D) and the Master degree in clinical pharmacy (Sweileh et al., 2016).

The lower practice of referral activities by more experienced pharmacists \_ if seen from an optimistic point of view\_ might reflect independency by experienced pharmacists in solving medication problems and providing medical advices to their patients. But if viewed from a pessimistic point of view might reflect unhealthy competition between experienced pharmacists themselves and between those pharmacists and other health care providers. Which in result means that ways to improve the collaboration between pharmacists and pharmacists with other health professionals should be enhanced in order to provide the best care for patients.

## 5.2 Professional culture.

The general evaluation of OCP factors relieved that, study participants perceived the greatest value in the factor of reward orientation, followed by factors of performance orientation, supportiveness, competitiveness, stability, social responsibility and innovation in descending order. Previous research characterizing the professional culture of Canadian community pharmacists relieved that more than 50% of respondents perceived values "supportiveness", "social in the factors of responsibility", "competitiveness", "reward and performance orientation" (Rosenthal et al., 2016). However, Palestinian and Canadian pharmacists differed in identifying stability factors. Pharmacists in the USA also perceived values in factors of social responsibility and competitiveness in addition to the identification of two new factors "attention to details" and "people orientation" (Rosenthal & Holmes, 2018).

It is important to note that the innovation factor had the lowest mean in this section, and this factor was not related to the provision of any dimension of pharmaceutical care services. In the USA and Canadian situation, this factor was also not recognized by the majority of respondents, but it had a positive significant effect on the provision of some advanced pharmacy services. In Canada, participants who gave higher value for innovation factor provide more medication reviews per month (Rosenthal et al., 2016). Similarly, in the USA innovation factor was positively associated with the provision of immunizations, medication reviews, and disease state consultations (Rosenthal & Holmes, 2018).

These observations encouraged pharmacy researchers to find out new approaches in which innovation factors can be enhanced. For example, in the USA education programs that aimed to foster the innovative characteristics "reflective thinking, risk-taking and innovative thinking for problem solution" between pharmacists were provided by different pharmaceutical institutions (Rosenthal & Holmes, 2018).

In this study the manifestation of OCP factors was influenced by the sociodemographic characteristics of the respondent pharmacists. Differences in the values that pharmacists perceive in the OCP factors

usually existed in previous studies that examined the professional culture by using this tool. In each study, respondents reported specific differences in identifying cultural factors, these differences may be influenced by the whole contextual properties of the pharmacy environment in each country. For example, in the USA respondent pharmacists differed in the values they perceive in OCP factors depending on their educational achievement and their practice settings whether they are working in a chain or independent pharmacies (Rosenthal & Holmes, 2018). Such a difference would not be existed in our study since the pharmaceutical law in Palestine did not allow pharmacists to establish chain pharmacy stores (Sweileh et al., 2016). In Canada, differences in cultural factors manifestation were significantly associated with pharmacists' educational achievements, years of experience, time in performing clinical activities, and the region in which they work (Rosenthal, Hall, et al., 2015).

# 5.3 The relationship between professional culture of community pharmacy and pharmaceutical care practice.

The regression models found that respondents seeing greater value in competitiveness factor provide more direct care activities. Furthermore, those who perceive greater value in supportiveness provide more referral and consultation activities. In addition, respondents who give high value to the factors of competitiveness, supportiveness and social responsibility provide more instrumental activities. These relationships are similar to the results obtained from previous researches. In USA positive relationship between the factors of "competitiveness" and "social responsibility" and the number of immunizations provided per month (Rosenthal & Holmes, 2018). In Canada, "competitiveness" factor was positively associated with increased number of immunization and prescription adaptations conducted per month (Rosenthal et al., 2016).

Contrarily, respondents from this study who perceive greater value in stability factor provide less referral and consultation activities. This inverse relationship was similar to the inverse relationship between stability factor and the frequency of immunizations provided by Canadian community pharmacists (Rosenthal et al., 2016).

The stability factor which is reflected by the items of "being calm, security of employment and low conflict" itself is not a negative factor as it likely contributes to the pharmacists' ability to provide independent health advices without referring their patient to another health care provider. While supportiveness factor which is reflected by the items of "being team and people oriented, collaboration, and sharing information freely" is not a negative factor also but it is related to pharmacists' willingness to consult another colleague when a patient's situation needed. All of these observations show an important interaction between competitiveness and supportiveness factors which were perceived as being important and affected the provision of pharmaceutical care activities.

## **5.4 Limitations of the study.**

there are some limitations that should be considered when we look at the result of this study:

- First, the sampling technique in this study was conventional which probably led to a biased sample and make generalization of the results to all community pharmacists in the West Bank difficult.
- Second, the responses were self-reported by study respondents which in turn increase the chance of high estimation of the frequency of providing pharmaceutical care services.
- Third, the professional culture was explored by a set of cultural factors that was not developed to the profession of pharmacy. This maybe means that there are other factors which are related specifically to the pharmacy context were not represented in this study.

## Chapter six Conclusion and Recommendations

## 6.1 Conclusion.

This cross-sectional research showed that community pharmacists in Palestine have improved the practice of pharmaceutical acre. However, the application of pharmaceutical care practice is still not complete because of the absence of documentation and referral systems in addition to the lake of continues educational programs for pharmacists.

This study represents a starting step in identifying the professional culture of community pharmacy and understanding how this culture may influence the challenge of conducting changes in pharmacy practice in Palestine. While preliminary, this work suggested that the professional culture of community pharmacy, which is an important part of the whole context of the pharmacy profession influence the integration of pharmaceutical care practice in Palestine. Number of significant positive relationships between competitiveness, supportiveness and social responsibility factors and the provision of pharmaceutical care services were relieved.

## 6.2 Recommendation.

#### 6.2.1 General recommendations.

In addition to studying the structural barriers of the implementation of pharmaceutical care practice, further researches on the professional culture of pharmacy and its influence on pharmacists' ability to implement new services to their practice.

The influence of professional culture on the pharmacy practice change should be considered in the legislative changes in order to improve pharmacists' contribution in the overall health provision.

#### 6.2.2 Specific recommendation.

Collaborative work between the MOH and the pharmaceutical association is recommended to:

- 1. Organize educational courses for pharmacists in general and for community pharmacists in particular to provide them continued and updated information about pharmaceutical care.
- build a clear strategy of providing accredited certifications for pharmacists who join these courses in order to distinguish them from other pharmacists.
- 3. Provide pharmacists who hold this certification opportunities to teach the previous mentioned course to the new graduated

pharmacists in order to enhance additional pharmacists to join these courses.

- 4. work on determining a clear salaries criterion for certificate holders, this in turn will foster the pharmacists' adaptation of pharmaceutical care.
- 5. organize meetings, groups and training courses for different health care professionals in collaboration with different health care profession association since the complete implementation of pharmaceutical care would not be achieved in isolation of other health professions.
- 6. organize training workshops to enhance pharmacists' innovative characteristics such as risk taking positive and creative ways of thinking since the innovation factor was not recognized by more than 50% of the study participants.
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#### Appendices

#### Appendix (1)

Arabic questionnaire

العلاقة بين الثقافة المهنية للصيدلة وخدمات الرعاية الصيدلانية المختلفة التي يقدمها الصيادلة

العاملين في الصيدليات الخاصة: دراسة مقطعية في الضفة الغربية / فلسطين

ملخص البحث: الغرض من هذا المشروع البحثي هو تكوين فكرة واضحة عن الثقافة المهنية للصيادلة العاملين في الصيدليات المجتمعية ، وتحديد خدمات الرعاية الصيدلانية التي يقدمها الصيادلة لمرضاهم، وفهم كيف يمكن لهذه الثقافة أن تؤثر على قرارات الصيادلة عند تقديم خدمات الرعاية الصيدلانية للمرضى. ستساعد نتائج هذا البحث في تقديم معلومات واضحة عن واقع مهنة الصيدلة الحالي و ذلك يمكن الاستفادة منه في تطويرها و توسعة استفادة المرضى و المجتمع بشكل عام من الخدمات التي يمكن للصيادلة تقديمها.

في هذا البحث سنقدم لكم مجموعة من الأسئلة التي ستستغرق إجابتها حوالي 15 دقيقة ، لكم كامل الحرية والإرادة في المشاركة في هذا البحث ، ولكم الحق في أخذ الوقت الكافي للتفكير في المشاركة من عدمها ، والتحدث لأي شخص أو جهة عن هذا البحث ، كما يمكنكم الاستفسار عن أي جزء يتعلق فيه في أي وقت ، وإذا كانت هناك كلمات أو أجزاء غير مفهومة بإمكانكم سؤال الباحث وستجدون الوقت والإجابة الكافيتين.

المخاطر والمنافع: ليس هناك مخاطر قد تتعرض لها من مشاركتك في هذا البحث، و ليس هناك منافع شخصية قد تجنى.

السرية: نؤكد بأن كافة المعلومات التي سوف يتم جمعها منكم هي لأغراض البحث العلمي فقط ،كما أنه لن تسجل أية معلومات يمكن أن تشير إلى الشخص المشارك، ولن تستخدم المعلومات لأغراض أخرى.

الحق في الانسحاب: أنت لست مجبراً على المشاركة في هذه الدراسة ويمكنك التوقف عن الإجابة في أي وقت. يمكنك أيضاً تخطي أي سؤال لا تريد الإجابة عنه ، لكن يرجى الإنتباه إلى أنه فور تسليمك للإجابات، لا يمكننا إلغاء أو حذف إجاباتك لأننا لا نجمع معلومات يمكن التعرف عنك من خلالها. تصريح الموافقة: قرأتُ وفهمت المعلومات الواردة أعلاه. بإكمالي هذه الإستبانة، أوافق على المشاركة في هذا البحث.

استفسارات: للاستفسار عن اي جزء يتعلق في البحث اواذا كانت هناك كلمات او اجزاء غير مفهومة بامكانك التواصل مع أمان جبريل طالبة ماجستير إدارة الصحة العامة، عبر الإيميل: aman.jebril@gmail.com محمول: 0594012061

معلومات اساسية:

| أنثى / ذكر`                           | 1. الجنس                                   |
|---------------------------------------|--|
|                                       | 2. العمر                                   |
|                                       | <ol> <li>الدرجة العلمية</li> </ol>         |
|                                       | 4. سنوات الخبرة                            |
|                                       | <ol> <li>الدولة التي تخرجت منها</li> </ol> |
| نابلس/ قلقيلية / طولكرم / جنين /      | 6. المحافظة                                |
| رام الله / بيت لحم / القدس / الخليل / |  |
| أريحا                                 |  |

خدمات الرعاية الصيدلانية:

في هذا القسم سنتناول موضوع خدمات الرعاية الصيدلية في الصيدليات المجتمعية

الرعاية المباشرة للمريض

معتمداً على ما تابعته من آخر خمسة مرضى بأمراض مزمنة جُدِّدَت لهم الوصفة الطبية، حدد اجابتك المناسبة لكل مما يلي:

| Ś   | كثيراً جداً | غالباً | أحياناً | نادراً | مطلقاً |
|---|-------------|--------|---------|--------|--------|
| مت بسؤال المريض الأسئلة اللازمة لتحديد نمط / طريقة      |             |        |         |        |        |
| خدامه للدواء  |             |        |         |        |        |
| مت بسؤال المريض الأسئلة اللازمة للتعرف على النتائج      |             |        |         |        |        |
| وسة (فعالية) الأدوية التي يتناولها                      |             |        |         |        |        |
| مت بسؤال المريض الأسئلة اللازمة للتأكد من تحقق الأهداف  |             |        |         |        |        |
| جوة من العلاج   |             |        |         |        |        |
| مت بسؤال المريض الأسئلة اللازمة لمعرفة ما إذا كان يعاني |             |        |         |        |        |
| شاكل متعلقة بالدواء (drug-related problems)             |             |        |         |        |        |

حدد طبيعة تصرفك في الحالات التالية مع آخر خمسة مرضى تعاملت معهم واكتشف أنهم يعانون من مشاكل متعلقة بالدواء

|                                      | کثیر جداً | غالباً | أحياناً | نادراً | مطلقاً |
|--------------------------------------|-----------|--------|---------|--------|--------|
| قمت بتقديم استر اتيجية أو خطة معينة  |           |        |         |        |        |
| ل / منع المشاكل المتعلقة بالدواء     |           |        |         |        |        |
| قمت بمتابعة المريض لتقييم تقدم حالته |           |        |         |        |        |
| نأ لأهداف العلاج                     |           |        |         |        |        |

# الإحالة والإستشارة والأنشطة المساعدة

بالرجوع الى جميع المرضى الذين رأيتهم في الأسبو عين الماضيين يرجى توضيح كيفية قيامك بالأنشطة التالية :

|  | كثيراً جداً | غالبأ | أحيانأ | نادرأ | مطلقأ |
|--|-------------|-------|--------|-------|-------|
| 7. مناقشة مشاكل علاج المرضى مع صيادلة                  |             |       |        |       |       |
| خرين في مجال عملك                                      |             |       |        |       |       |
| 8. إحالة المريض إلى زميل صيدلاني آخر حين               |             |       |        |       |       |
| بكون ذلك أفضل لمصلحته                                  |             |       |        |       |       |
| <ol> <li>إحالة المريض لطبيب مختص عندما تكون</li> </ol> |             |       |        |       |       |
| حالته الطبية بحاجة لذلك                                |             |       |        |       |       |
| 10. تزويد المعلومات المتعلقة بحالة مريض                |             |       |        |       |       |
| معين للطبيب المختص المسؤول عن متابعة                   |             |       |        |       |       |
| حالته  |             |       |        |       |       |
| 11. تقديم المشورة الطبية للمرضى القادمين               |             |       |        |       |       |
| لصيدلية  |             |       |        |       |       |
| 12. استخدام مكان هادئ لتقديم المشورة الطبية            |             |       |        |       |       |
| 13. مراجعة و تدقيق الوصفة الطبية قبل إعطاء             |             |       |        |       |       |
| لأدوية الموصوفة للمريض                                 |             |       |        |       |       |
| 14. استعمال مصدر معلومات موثوق لتزويد                  |             |       |        |       |       |
| لمرضى بما يحتاجونه من معلومات عن                       |             |       |        |       |       |
| لأدوية التي يتناولونها عند حاجتهم لذلك                 |             |       |        |       |       |

## استكشاف درجة الوعى بالرعاية الصيدلية

| لا | نعم |   |
|----|-----|---|
|    |     | 15. هل سمعت سابقاً بمصطلح الرعاية الصيدلانية؟ |

| مطلقاً | أحياناً | دائماً |   |
|--------|---------|--------|---|
|        |         |        | 16. كم بالعادة تحاول تقديم الرعاية الصيدلانية لمرضاك؟     |
|        |         |        | 17. كم بالعادة تقدم إلتزاماً نفسياً وجهداً مضاعفاً لتطوير |

| تائج علاجهم ؟                                      |  |  |
|--|--|--|
| 18. كم بالعادة تستفسر عن درجة رضا المرضى عن        |  |  |
| خدماتك لتقيّم عملك ؟                               |  |  |
| 19. كم بالعادة تنخرط ببر امج در اسة ذات مستوى أعلى |  |  |
| تحسن من كفاءتك؟                                    |  |  |
| 2). كم بالعادة تقدم معلومات طبية عامة لمرضاك؟      |  |  |

الثقافة المهنية:

في هذا القسم نحن مهتمون بوجهة نظرك تجاه مهنة الصيدلة.

قيّم كل من الأتية، " إلى أي مدى جعلتك الصيدلة ..."

|  | لا على  | بد | بدرجة | بدرجة  | بدرجة  | بأكبر |
|--|---------|----|-------|--------|--------|-------|
|  | الاطلار | lä | قليلة | متوسطة | معتبرة | مدی   |
|  |         |    |       |        |        |       |
| <ol> <li>1. تسعى للإنجاز</li> </ol>              |         |    |       |        |        |       |
| 2. تركز على الجودة                               |         |    |       |        |        |       |
| <ol> <li>متميز ومختلف عن</li> </ol>              |         |    |       |        |        |       |
| الآخرين  |         |    |       |        |        |       |
| 4. تنافسی  |         |    |       |        |        |       |
| 5. تأملي ومفكر                                   |         |    |       |        |        |       |
| 6. ذو مكانة جبدة                                 |         |    |       |        |        |       |
| 7. مسؤول إجتماعياً                               |         |    |       |        |        |       |
| 8. لدبك توجه فلسفي واضح                          |         |    |       |        |        |       |
| <u> </u>   |         |    |       |        |        |       |
| 10 تشارك المعلومات بحُرّية                       |         |    |       |        |        |       |
| <u>ال</u> ابت المتماعي مع الناس                  |         |    |       |        |        |       |
| <u>12</u> متعاون                                 |         |    |       |        |        |       |
| <u>12. رق</u><br>13 مىتكر                        |         |    |       |        |        |       |
| <u>14 مستغل سريع للفرص</u>                       |         |    |       |        |        |       |
| <u> </u>   |         |    |       |        |        |       |
| <u> رور و </u>                                   |         |    |       |        |        |       |
| المسؤولية بذاتك                                  |         |    |       |        |        |       |
| بالار) و مدانس                                   |         |    |       |        |        |       |
| 17   |         |    |       |        |        |       |
| 10. يستعلى مستام عطى المستعب                     |         |    |       |        |        |       |
| بيني<br>10 مەنەرىتقىرە أرام جىر                  |         |    |       |        |        |       |
| 19 . مهتم بنديم ، درم جيد<br>20 تدرج الأرام الدر |         |    |       |        |        |       |
| 20.20 تتدقع تقدر الأداء الحدر                    |         |    |       |        |        |       |
| [2. للوقع تقديم الإداء الجيد                     |         |    |       |        |        |       |

|  |  | 22.متحفز للعمل   |
|--|--|------------------|
|  |  | 23.تنظر للنتائج  |
|  |  | 24.منظم ومرتب    |
|  |  | 25.ثابت ومستقر   |
|  |  | 26. ھادئ         |
|  |  | 27. آمن وظيفياً  |
|  |  | 28.قليل الخلافات |

## Appendix (2)

Questionnaire link:

## https://docs.google.com/forms/d/e/1FAIpQLSehQKMqJcUo9XNcCa rVLjGlQsCLNH8fg1o\_jtHbnC89Mp0arQ/viewform

## Appendix (3)

#### English questionnaire:

The relationship between professional culture of pharmacy and different pharmaceutical care services provided by community pharmacists: a cross sectional study in West Bank /Palestine.

Description:

The purpose of this research project is to have an insight in to community pharmacies' professional culture and to understand how can this culture affect pharmacists' decisions to provide pharmaceutical care services to their patients. We would like to ask you a few questions about pharmaceutical care services that can be provided in community pharmacies, and your ideas about pharmacists' professional culture,

Risk and benefits:

The one and only risk may be the length of the questions. This may make you feel uncomfortable.

Confidentiality:

No identifiable information will be recorded; therefore, we do not think that you can be identified from this study.

Right to withdraw:

You do not have to take part in this study and you may stop participation at any time. You may skip any question you prefer not to answer. However, please note once you have ended the questionnaire, we have no way of removing your responses, because we are not collecting any identifying information.

Statement of Consent:

I have read and understand the above information. By completing the questionnaire, I consent to participate in the study.

If you have any questions regarding this, please contact Aman Jebril, Master or public health management student. Email: <u>aman.jebril@gmail.com</u>.

Background questions:

| GenderfemaleAgefemaleAgeBachelor of pharmacyPharmoPharmDMaster degreePh. DPh. Dless than 5 years5-10 years5-10 yearsYears of pharmacy experience10-15 yearsCountry of graduation>15 years  |
|--|
| AgeBachelor of pharmacyPharmacy qualificationBachelor of pharmacyPharmDPharmDMaster degreePh. DPh. Dless than 5 yearsYears of pharmacy experience5-10 yearsYears of pharmacy experience10-15 yearsCountry of graduation>15 years   |
| Bachelor of pharmacyPharmacy qualificationBachelor of pharmacyPharmDMaster degreePh. DPh. DYears of pharmacy experience10-15 yearsYears of pharmacy of graduation>15 years   |
| Bachelor of pharmacyPharmDPharmDMaster degreePh. DPharmacy experience10-15 yearsSountry of graduationItem 1000000000000000000000000000000000000  |
| Bachelor of pharmacy         PharmD         Master degree         Ph. D         Less than 5 years         5-10 years         10-15 years         >15 years         Country of graduation   |
| Pharmacy qualification       PharmD         Master degree       Ph. D         Pharms of pharmacy experience       less than 5 years         5-10 years       5-10 years         Vears of pharmacy experience       10-15 years         South of graduation       >15 years |
| Master degree       Ph. D       less than 5 years       5-10 years       10-15 years       >15 years   |
| Ph. D       less than 5 years       5-10 years       5-10 years       10-15 years       >15 years  |
| less than 5 years       5-10 years       Years of pharmacy experience       10-15 years       >15 years       Country of graduation  |
| Years of pharmacy experience     5-10 years       10-15 years     >15 years       Country of graduation  |
| Years of pharmacy experience     10-15 years       >15 years       Country of graduation   |
| >15 years  |
| Country of graduation  |
|  |
|  |
|  |
|  |
|  |
| Bethlehem  |
| Hebron   |
| Jenin  |
| Jericho  |
| Governorate Jerusalem  |
| Nablus   |
| Oalqilya   |
| Ramallah   |
| Tulkarm  |

pharmaceutical care services:

In this section we are interested in the pharmaceutical care practice in community pharmacies.

• Direct patient care/Current pharmacy practice

Please indicate how many of your last five patients with chronic conditions, who presented a refill prescription you provided the following activities by ticking the appropriate response.

| The respondent                                  | Very  | often | Sometimes | rarely | never |
|---|-------|-------|-----------|--------|-------|
|   | often |       |           |        |       |
|   |       |       |           |        |       |
| 1. Asked patient questions to access actual     |       |       |           |        |       |
| patterns of use of medication                   |       |       |           |        |       |
| 2. Asked patient questions to find out-about    |       |       |           |        |       |
| perceived effectiveness of drugs he or she      |       |       |           |        |       |
| was taking.                                     |       |       |           |        |       |
| 3. Asked patient questions to ascertain         |       |       |           |        |       |
| whether therapeutic objectives were             |       |       |           |        |       |
| realized.                                       |       |       |           |        |       |
| 4. Asked patient questions to find out if he or |       |       |           |        |       |
| she might be experiencing drug-related          |       |       |           |        |       |
| problems.                                       |       |       |           |        |       |

Please indicate the activities provided to last five patients of yours you discovered were experiencing drug related problems by ticking the appropriate response.

| The respondent  | Very<br>often | often | sometimes | rarely | never |
|---|---------------|-------|-----------|--------|-------|
| 5. Implemented a strategy to resolve (or prevent) drug related problems                                       |               |       |           |        |       |
| <ol> <li>Follow up patients to evaluate their<br/>progress towards the drug therapy<br/>objectives</li> </ol> |               |       |           |        |       |

#### • Referral, consultation and instrumental activities

Considering all patients you saw in the last two weeks, please indicate how you actually carried out the following activities.

| The respondent   | Very<br>often | often | Sometimes | rarely | never |
|--|---------------|-------|-----------|--------|-------|
| 7. Discussed patients drug therapy problems with other pharmacists in my practice.   |               |       |           |        |       |
| 8. Made referrals to other pharmacists whenever it was in the best interest of the patient.  |               |       |           |        |       |
| 9. Referred patients to specific physician when necessary.   |               |       |           |        |       |
| <ol> <li>Communicated patients progress on their<br/>drug therapy to their physician or<br/>care providers.</li> </ol>   |               |       |           |        |       |
| 11. How often do you counsel all patients coming to this pharmacy?   |               |       |           |        |       |
| 12. Used a quiet location for patient counseling.  |               |       |           |        |       |
| 13. Double checked each prescription prepared<br>by other personnel before<br>giving medicines to patients.  |               |       |           |        |       |
| 14. Used appropriate information services (e.g. personal reference library, online searching service, subscription to drug information source) to provide drug information when necessary. |               |       |           |        |       |

#### • *Exploring the awareness of pharmaceutical care.*

| The respondent  | yes | no |
|---|-----|----|
| 15. Have you heard about the concept of pharmaceutical care |     |    |

| The respondents  | Always | Sometimes | Never |
|--|--------|-----------|-------|
| 16. How often do you try to provide pharmaceutical care to your patients?                                |        |           |       |
| 17. How often do you make psychological commitment and effort required to improve their outcome          |        |           |       |
| 18. How often do you inquire of patient's satisfaction with your services in order to evaluate your work |        |           |       |
| 19. How often do you participate in higher educational programs to maintain and improve your competence? |        |           |       |
| 20. How often do you provide general medical information to patients?                                    |        |           |       |

#### Professional culture:

In this section we are interested in your perception of the profession of pharmacy. For each of the following items please rate, "To what extent is pharmacy recognized for its..."

| Cultural items                                | Not at all | Minimally | Moderately | Considerably | Very<br>much |
|---|------------|-----------|------------|--------------|--------------|
| Achievement orientation                       |            |           |            |              |              |
| An emphasis on quality                        |            |           |            |              |              |
| Being distinctive—being different from others |            |           |            |              |              |
| Being competitive                             |            |           |            |              |              |
| Being reflective                              |            |           |            |              |              |
| Having a good reputation                      |            |           |            |              |              |
| Being socially responsible                    |            |           |            |              |              |
| Having a clear guiding philosophy             |            |           |            |              |              |
| Being team oriented                           |            |           |            |              |              |
| Sharing information freely                    |            |           |            |              |              |
| Being people oriented                         |            |           |            |              |              |
| Collaboration                                 |            |           |            |              |              |
| Being innovative                              |            |           |            |              |              |
| Quick to take advantage of opportunities      |            |           |            |              |              |
| Risk taking                                   |            |           |            |              |              |
| Taking individual responsibility              |            |           |            |              |              |
| Fairness                                      |            |           |            |              |              |

| Opportunities for        |  |  |  |
|--------------------------|--|--|--|
| professional growth      |  |  |  |
| High pay for good        |  |  |  |
| performance              |  |  |  |
| Praise for good          |  |  |  |
| performance              |  |  |  |
| Having high expectations |  |  |  |
| for performance          |  |  |  |
| Enthusiasm for the job   |  |  |  |
|                          |  |  |  |
| Being results oriented   |  |  |  |
| Boing highly organized   |  |  |  |
| being inginy organized   |  |  |  |
| Stability                |  |  |  |
|                          |  |  |  |
| Being calm               |  |  |  |
|                          |  |  |  |
| Security of employment   |  |  |  |
| L anno a scillart        |  |  |  |
| Low conflict             |  |  |  |
|                          |  |  |  |

# Appendix (4)

# **IRB** Approval

| sin-Najah   | A   | جامعة التجاح  |
|---|---|---|
| National University   | - Star  | الوطنية   |
| Health Faculty of medicine&   | 2.5   | کلیه انظب و علوم انصحه<br>ایرز به اط بر انتریک انتار                    |
| IRB   |   | ي الدين اليد اليد   |
| Ref: 1  |   |   |
|   | IRB Approval Letter   |   |
| Study Title:  |   |   |
| "The relationship between<br>pharmaceutical care service<br>sectional s | professional culture<br>es provided by comm<br>study in West Bank / | of pharmacy and different<br>nunity pharmacists: a cross<br>Palestine." |
| Submitted by:   |   |   |
| Aman Jebril   |   |   |
| Supervisor:   |   |   |
| Dr. Mariam Al-tell  |   |   |
| Date Approved:  |   |   |
| 2 <sup>nd</sup> Sep 2020  |   |   |
| Your Study Title "The relationsh  | ip between professi   | onal culture of pharmacy  |
| and different pharmaceutical  | care services provi   | ded by community  |
| pharmacists: a cross section  | al study in West Bar  | nk /Palestine", was reviewed  |
| by An-Najah National University IRE                                     | committee and was appr  | roved on 2 <sup>nd</sup> Sept.2020                                      |
|   |   |   |
| Hasan Fitian, MD  |   |   |
|   | IRR   |   |
| RB Committee Chairman   | LILL  |   |
| An-Najah National University  |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
| (970) (19) 2342910 (970) (1970)   | (09)2343903/4/7/8/14  | تابلدن ، جن بي 7 از 7   |

جامعة النجاح الوطنية كلية الدراسات العليا

# العلاقة بين الثقافة المهنية للصيدلة وخدمات الرعاية الصيدلانية المختلفة التي يقدمها الصيادلة العاملين في الصيدليات الخاصة: دراسة مقطعية في الضفة الغربية / فلسطين

إعداد أمان عبد الرحيم جبريل

# إشراف

د. مربع الطل

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في برنامج إدارة الصحة العامة، بكلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس- فلسطين. 2021 العلاقة بين الثقافة المهنية للصيدلة وخدمات الرعاية الصيدلانية المختلفة التي يقدمها الصيادلة العاملين في الصيدليات الخاصة: دراسة مقطعية في الضفة الغربية / فلسطين

مع تطور نظام الرعاية الصحية، تطورت مهنة الصيدلة أيضاً وتم ادخال خدمات صيدلانية متقدمة الى ممارسة هذه المهنة مثل خدمات الرعاية الصيدلانية. ومع ذلك، فإن العديد من الصيادلة لم يتمكنوا من تقديم مثل هذه الخدمات حتى الآن. تقترح دراسات البحث التطبيقي أن فهم الثقافة المهنية لمهنة الصيدلة، والتي تعد جزء من سياق الصيدلة بأكمله، له أهمية رئيسية لتحقيق تغيير فعال في ممارسة الصيدلة.

يهدف هذا البحث للتعرف على الثقافة المهنية لصيادلة المجتمع و فهم كيف يمكن لهذه الثقافة أن تؤثر على تقديم الصيادلة لخدمات الرعاية الصيدلانية لمرضاهم

كانت هذه الدراسة عبارة عن استبيان تم إرساله عبر الإنترنت للصيادلة العاملين في صيدليات المجتمع في الضفة الغربية. احتوى الإستبيان على ثلاثة أجزاء. الجزء الأول كان قسم المعلومات الديموغرافية. وكان القسم الثاني هو قسم الرعاية الصيدلانية. احتوى على قائمة من 20 خدمة مشتقة من مقياس الرعاية الصيدلانية السلوكية كمقياس لخدمات الرعاية الصيدلانية. وكان القسم الثالث هو قسم الثقافة المهنية وقد احتوى على مقياس الثقافة التنظيمية كمقياس للثقافة المهنية للصيدلة.

كان عدد الاستبانات المجابة بشكل كامل هو 294 استبيان. بلغ متوسط عمر الصيادلة المشاركين في الدراسة (37.5 ± 9.5). كانت الخدمات المساعدة هي الخدمات المقدمة بشكل أكبر من قبل الصيادلة المشاركين في الدراسة (متوسط 4.28 ± 4.24) وكانت أقل الخدمات المقدمة هي

خدمات الإحالة والاستشارة (متوسط 3.46 ± 0.6). وصف المشاركون مهنة الصيدلة بأنها جعلتهم يهتمون بتقديم المكآفأة، يليها اهتمامهم بالأداء الجيد، تقديم الدعم للمرضى، والقدرة التنافسية، والاستقرار، والمسؤولية الاجتماعية والابتكار. أظهرت الدراسة علاقة طردية بين اعتبار المشاركين أن مهنة الصيدلة جعلتهم تنافسيين ومختلفين عن الاخرين، ومتعاونين ويقدمون الدعم للآخرين، ولديهم مسؤولية اجتماعية و تقديمهم لخدمات الرعاية الصيدلانية.

أظهر هذا البحث المقطعي أن الصيادلة العاملين في صيدليات المجتمع في فلسطين قد حسّنوا من ممارسة الرعاية الصيدلانية. كما أن هذه الدراسة تمثل نقطة بداية في تحديد الثقافة المهنية للصيدلة المجتمعية وفهم كيف يمكن للثقافة أن تؤثر على احداث تغييرات في ممارسة مهنة الصيدلة في فلسطين.