TURKISH REPUBLIC OF NORTHERN CYPRUS

NEAR EAST UNIVERSITY

Institute of Health Sciences, Department of Pharmacology

'Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in the Western Region of Libya'

A THESIS SUBMITTED TO THE GRADUATE INSTITUTE OF HEALTH SCIENCE
NEAR EAST UNIVERSITY

BY

ASMA SALEM ELKISHR

In partial Fulfilment of the Requirements for the Dgree of Master of Science in Pharmacology

NICOSIA 2016

T.R.N.C

NEAR EAST UNIERSITY

Institute of Health Sciences, Department of Pharmacology

'Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in the Western Region of Libya'

ASMA SALEM ELKISHR

Master of Science in Pharmacology

Advisor

Assoc. Prof. Dr. Bilgen BAŞGUT

NICOSIA 2016

DEDICATION

I dedicate my honest gratitudes of this work to Almighty 'God' Allah that provides me with sinceer, helpful, couraging and supportive husband, children, parents, brothers and sisters, and above all my teachers who paved the way of my M.A thesis to be taken into action.

My special thanks due to my best and honorable teacher,

Assoc.Prof.Dr. Bilgen Başgut

Approval

Thesis submitted to the Institute of Health Sciences of Near East University in partial fulfillment of the requirements for the degree of **Master of Science in Pharmacology.**

Thesis Committee:

Chair of the committee: **Prof. Dr. Nurettin Abacıoğlu**

Near East University Sig: .....

Advisor: **Assoc. Prof. Bilgen Basgut**

Near East University Sig: .....

Member: **Prof. Dr. A. Tanju Özçelikay**

Ankara University Sig: .....

Approved by: **Prof. Dr. İhsan ÇALIŞ**
Director of Health Sciences Institute
Near East University Sig: .....

ACKNOWLEDGEMENTS

Endless thanks are due to Almighty Allah that provides me with power, knowledge, and guidance not only for the sake of this work, but also for othre life tasks.

My special thanks for my Husband (Mustafa), my son (Abdelrahman), and my daughter (Marya) who are always illuminating my life with love,support and happiness. In addition, my sinceer gratitude to my father (Salem) and my mother (Shareefa) and also my siblings (Suad, Amna, Hesham, and Safa) who were always on my side for help and encouragement.

I am very grateful to my advisor Assoc.Prof.Dr. Bilgen Başgut the Head of Clinical pharmacy and Pharmacology Department of the Faculty of Pharmacy at Near East University for her encouragement throughtout my study.

Special acknowledgement is to everyone who helped or encouraged me of whatsoever means of support in order to have a successful completion of this project.

ASMA SALEM ELKISHR

List of Abbreviations

S.N	Abbreviations	Explanations
1	AACP	American Association of Colleges pharmacy
2	ADRs	Adverse Drug Reaction
3	FIP	International Pharmaceutical Federation
4	FDA	Food Drug Administrated
5	PC	Pharmaceutical Care
6	WHO	World Health Organization

Abstract

The current study investigates the assessment of pharmacists' knowledge and their practice competence with regard to pharmaceutical care services in Libya. In addition, the aim of this study was to evaluate the knowledge, attitude and practice of community pharmacists towards pharmaceutical care services in Tripoli, Libya. The methodology of this study is a qualitative and prospective which is conducted among community pharmacists in Tripoli province. The design of this study is a self-administered questionnaire distributed to the Libyan pharmacists' community. Data iscollected then analyzed descriptively using percentages and frequency distributionand correlation. The result of the current study revealed the average of deficit knowledge of pharmaceutical care conceptions whether the Libyan pharmacists had positive attitudes towards the practicum of pharmaceutical care in Tripoli-Libya. They also adhered the significance of pharmaceutical care practice in increasing the patient confidence in the profession. Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care. However, the current curriculum for pharmacy education is not adequate to support the practice. There is no significance has been shown with regard to pharmaceutical care practice. There is a poor relationship of community- Pharmacists with other health providers. There is a Self-confidence in pharmacists themselves however, there is also a lack of trained personnel and support staff to offer Pharmaceutical care. There has been an awareness of Libyan pharmacists' responsibility towards patients and of drug related.

Keywords: Attitude, knowledge, practice, community pharmacists, pharmaceutical care

ÖZET

Table of contents

Tables

Graphs

1. Introduction

1.1. Overview

Dating back in 1998, when the International Pharmaceutical Federation (FIP) defined pharmaceutical care (PC) as "the responsible provision of pharmacotherapy for the purpose of achieving definite outcomes that improve or maintain a patient's quality of life; it is a collaborative process that aims at prevents or identifies and resolves medicinal product and health related problems (FIP, 1998).

The number of medicines on the market has increased dramatically over the last few decades, bringing some considerable challenges in controlling the quality and rational use of medicines. Over the past four decades there has been a dramatically shift from pharmacy practice of drug supply-orientation to become patient-centred and service providing.

The pharmaceutice care is apatient-centered practice in which the practitioner assumes responsibility for patients drug-related needs and is held accountable for this commitment, pharmaceutice care practitioners accept responsibilty for optimizing all of patients drug therapy, regardless of the source (prescription, nonprescription ,alternative, or traditional medicines) to achieve better patient outcomes and improve the quality of each patient's life.

These days, the clinical pharmacy and pharmaceutical care have turned into the predominant type of practice for a large number of pharmacists around the globe, with a hefty portion of them concentrated or sup spent significant time in the diverse regions of medicinal (Tonna, 2008).

1.2. The pharmacists' roles

Community pharmacists have always played a role in promoting, maintaining and improving the health of the communities they serve. Community pharmacists are often patientsí first point of contact, and for some of patients pharmacists are their only contact, with a healthcare professional. Engaging with communities through day-to-day activities, which might include the provision of advice to parents of young children, the care and support of drug misusers, visits to the homes of older and housebound people and advice on smoking cessation, pharmacists already make a significant contribution to public health.

All pharmacists play a major part in limiting the illicit availability of drugs by controlling the supply of medicines, monitoring prescriptions to identify excessive prescribing and detecting and reporting forged prescriptions (Acheson, 1988).

1.3. The pharmacists' challenges

Pharmacists must abandon fanctionalism and adopt aptient-centered pharmaceutical care as their philosophy of practice Hepler and Strand (1990). Pharmacists and their institutions must stop looking inward and start redirecting their energies to the greater social good. A number of 12000 deaths and 15000 hospitalization due to adverse drug reactions (ADRs) were reported to the FDA in 1987, and many went unreported. Drug-related morbidity and morality are often preventable, and pharmaceutical care can reduce the numbet of ADRs, the length of hospital stays, and the cost of care.

Donald Berwick, CMS Administrator, stated, "America is facing a critical choice in health care. Either cut care or improve care. I don't like to cut care, so the only right thing to do is to improve care". One of the most logical, evidence-based decisions that can be made to

improve care is to maximize the expertise and scope of pharmacists, and minimize expansion barriers of an already existing and successful health care delivery model. (Giberson 2011).

1.4. The pharmaceutical care implementation barries

An overall pharmaceutical care approach is considered to be quite difficult to implement also due to the underlying different health care as well as pharmaceutical systems. Cultural and traditional differences might be barriers to the implementation of an identical pharmaceutical care approach. The authors understand that suggested pharmaceutical care actions need to be adapted for each country (Morak, 2010). According to the barriers detected by The American Association of Colleges of Pharmacy (AACP); Economic ("the public won't pay for it"), logistic ("pharmacists don't have patient data"), interprofessional ("physicians won't stand for it"), and competence ("pharmacists can't do it") barriers frequently are cited.

The role of the pharmacist has evolved from that of a supplier of pharmaceutical products towards that of aservice provider. Increasingly, the pharmacist's task is to ensure that a patient's drug therapy is appropriately indicated, the most effective available, the safest possible, and convenient for the patient. By taking direct responsibility for individual patient's medicine-related needs, pharmacists can make a unique contribution to the outcome of drug therapy and to their patients' quality of life (Wiedenmayer, Summers, Mackie, Gous, & Everard, 2006). Therefore, the multi-task function of the pharmacist is described as having, not seven roles, but eight functions; caregiver, decision-maker, communicator, manager, lifelong learner, teacher, leader, and in addition, researcher (Abrika, & et al. 2013).

1.5. Barriers to Effective planning

- Failure to commit sufficent time to the planning effort.
- Interpersonal issues such as struggies over power or politics and individual or group resistance to change.
- Lack of planning skills.
- Failure to plan far enough into the future.
- Constantly changing enviroment.
- Failure to implement owing lack of time or lack of resources.
- Failure to monitor progress.
- Lack of support of top executive and/or board of directors (Desselle, & Zgarrick, 2009).

1.6. The Middle East and Libya

In general, the particular strengths of pharmacy services include advise providing on the management of health problems. It is widely believed that pharmacists could make a greater contribution to the provision of primary healthcare, especially in developing countries. In those countries where a significant proportion of the population has a high level of health needs. This issue has been addressed in the Middle East where pharmacy education has increasingly changed over recent decades, although progress in pharmacy practice is considered to be slow (Abrika, & et al. 2013).

Furthermore, nations in the Middle East have to face many of same challenges in pharmacy education as other countries outside the region. Due to a number of reasons, on a curricular level, pharmacy schools are revising their curricula to involve greater focus on patient care skills and more structured experiential training. The recent expansion in Arab and African pharmacy colleges and degree programs offered is obvious where a trend is apparent towards increased emphasis on clinical and pharmacy practice in the curriculum to prepare graduates for the delivery of competent patient care (Abduelkareem, 2014).

Libya has a population of around six million people. There are six pharmacy schools in Libya at present. The first college of pharmacy was established in Tripoli University, Tripoli, Libya, in 1975, offering a bachelor's degree in pharmacy as well as a master's degree in pharmaceutical sciences. Admission to pharmacy faculty is based upon secondary school performance; there is a pre-requisite of a one year course followed by four years in pharmacy school (Abduelkareem, 2014).

In Libya, the pharmacy curriculum based on traditional sciences did not have specific social pharmacy courses. Therefore, the present study was conducted to determine whether or not it is necessary to have social pharmacy courses in the existing pharmacy curriculum.

1.7. Pharmaceutical care as a generalist practice

The (PC) generalist practitoner is one who provides continuing comprehensive, and coordinated care to a population undifferntated by gender, disease, drug treatment category or organ system (a dated from American Boards of family practice and internal Medicine). The generalist practice described here is applicable in all patient care practice settings including ambulatory, long-term care, hospital, and clinic setting. The practice of (PC) dose not change

depending upon setting because the practice can accommodate all types of patient and medical condition as will as all types of drug therapies.

Therefore, only when (PC) is practice widely, and become familiar with the practice process, can develop practice areas. The generalist and the specilist must use the same patient care process, have a common vocabulary, and refer patient back and fornt between themselves for the practice to work efficiently and cost effectively. Pharmaceutical care has been expressly defined to allow the (PC) practitioner to work alongside physicians, nurses, and other patient care providers to optimize care. This collaborative effort required a common vocabulary where the ability to use precise language appropriately will directly reflect upon the pharmacist's level of competency and confidence.

1.8. Deveolping pharmacy practice-afocus on patient care

Introduced by WHO and taken up by FIP in 2000 in its policy statement on Good Pharmacy Education Practice to cover these roles: caregiver, decision-maker, communicator, manager, life-long learner, teacher, leader and the function of the pharmacist as a researcher is added later. The roles of the pharmacist are described below and include the following functions:

- Caregiver: Pharmacists provide caring services. They must view their practice as integrated and continuous with those of the health care system and other health professionals. Services must be of the highest quality.
- Decision-maker: The appropriate, efficacious, safe and cost-effective use of resources (e.g., personnel, medicines, chemicals, equipment, procedures, practices) should be the foundation of the pharmacist's work. At the local and national levels, pharmacists play a role in setting medicines policy. Achieving this goal requires the ability to evaluate, synthesize data and information and decide upon the most appropriate course of action.

- Communicator: The pharmacist is in an ideal position to provide a link between prescriber and patient, and to communicate information on health and medicines to the public. He or she must be knowledgeable and confident while interacting with other health professionals and the public. Communication involves verbal, non-verbal, listening and writing skills.
- Manager: Pharmacists must be able to manage resources (human, physical and financial) and information effectively; they must also be comfortable being managed by others, whether by an employer or the manager / leader of a health care team. More and more, information and its related technology will provide challenges as pharmacists assume greater responsibility for sharing information about medicines and related products and ensuring their quality.
- Life-long-learner: It is impossible to acquire in pharmacy school all the knowledge and experience needed to pursue a life-long career as a pharmacist. The concepts, principles and commitment to life-long learning must begin while attending pharmacy school and must be supported throughout the pharmacist's career. Pharmacists should learn how to keep their knowledge and skills up to date.
- Teacher: The pharmacist has a responsibility to assist with the education and training of future generations of pharmacists and the public. Participating as a teacher not only imparts knowledge to others, it offers an opportunity for the practitioner to gain new knowledge and to fine-tune existing skills.
- Leader: In multidisciplinary (e.g., team) caring situations or in areas where other health care providers are in short supply or non-existent the pharmacist is obligated to assume a leadership position in the overall welfare of the patient and the community. Leadership involves compassion and empathy as well as vision and the ability to make decisions,

communicate, and manage effectively. A pharmacist whose leadership role is to be recognized must have vision and the ability to lead:

- Researcher: The pharmacist must be able to use the evidence base (e.g., scientific, pharmacy practice, health system) effectively in order to a dvise on the rational use of medicines in the health care team. By sharing and documenting experiences, the pharmacist can also contribute to the evidence base with the goal of optimizing patient care and outcomes. As a researcher, the pharmacist is able to increase the accessibility of unbiased health and medicines-related information to the public and other health care professionals.

1.9. Principles of Practice for Pharmaceutical Care

1. Data Collection

1.1 The pharmacist conducts an initial interview with the patient for the purposes of establishing a professional working relationship and initiating the patient's pharmacy record. In some situations (e.g. pediatrics, geriatrics, critical care, language barriers) the opportunity to develop a professional relationship with and collect information directly from the patient may not exist. Under these circumstances, the pharmacist should work directly with the patient's parent, guardian, and/or principal caregiver.

1.2 The interview is organized, professional, and meets the patient's need for confidentiality and privacy. Adequate time is devoted to assure that questions and answers can be fully developed without either party feeling uncomfortable or hurried. The interview is used to systematically collect patient-specific subjective information and to initiate a pharmacy record which includes information and data regarding the patient's general health and activity status, past medical history, medication history, social history (including economic situation), family

history, and history of present illness. The record should also include information regarding the patient's thoughts or feelings and perceptions of his/her condition or disease.

1.3 The pharmacist uses health / physical assessment techniques (blood-pressure monitoring, etc.) appropriately and as necessary to acquire necessary patient-specific objective information.

1.4 The pharmacist uses appropriate secondary sources to supplement the information obtained through the initial patient interview and health / physical assessment. Sources may include, but are not limited to, the patient's medical record or medical reports, the patient's family, and the patient's other healthcare providers.

1.5 The pharmacist creates a pharmacy record for the patient and accurately records the information collected. The pharmacist assures that the patient's record is appropriately organized, kept current, and accurately reflects all pharmacist-patient encounters. The confidentiality of the information in the record is carefully guarded and appropriate systems are in place to assure security. Patient-identifiable information contained in the record is provided to others only upon the authorization of the patient or as required by law.

2. Information Evaluation

2.1 The pharmacist evaluates the subjective and objective information collected from the patient and other sources then forms conclusions regarding: (1) opportunities to improve and/or assure the safety, effectiveness, and/or economy of current or planned drug therapy; (2) opportunities to minimize current or potential future drug or health-related problems; and (3) the timing of any necessary future pharmacist consultation.

2.2 The pharmacist records the conclusions of the evaluation in the medical and/or pharmacy record.

2.3 The pharmacist discusses the conclusions with the patient, as necessary and appropriate, and assures an appropriate understanding of the nature of the condition or illness and what might be expected with respect to its management.

3. Formulating a Plan

3.1 The pharmacist, in concert with other healthcare providers, identifies, evaluates and then chooses the most appropriate action(s) to: (1) improve and/or assure the safety, effectiveness, and/or cost-effectiveness of current or planned drug therapy; and / or, (2) minimize current or potential future health-related problems.

3.2 The pharmacist formulates plans to effect the desired outcome. The plans may include, but are not limited to, work with the patient as well as with other health providers to develop a patient-specific drug therapy protocol or to modify prescribed drug therapy, develop and/or implement drug therapy monitoring mechanisms, recommend nutritional or dietary modifications, add non-prescription medications or non-drug treatments, refer the patient to an appropriate source of care, or institute an existing drug therapy protocol.

3.3 For each problem identified, the pharmacist actively considers the patient's needs and determines the desirable and mutually agreed upon outcome and incorporates these into the plan. The plan may include specific disease state and drug therapy endpoints and monitoring endpoints.

3.4 The pharmacist reviews the plan and desirable outcomes with the patient and with the patient's other healthcare provider(s) as appropriate.

3.5 The pharmacist documents the plan and desirable outcomes in the patient's medical and/or pharmacy record.

4. Implementing the Plan

4.1 The pharmacist and the patient take the steps necessary to implement the plan. These steps may include, but are not limited to, contacting other health providers to clarify or modify prescriptions, initiating drug therapy, educating the patient and/or caregiver(s), coordinating the acquisition of medications and/or related supplies, which might include helping the patient overcome financial barriers or lifestyle barriers that might otherwise interfere with the therapy plan, or coordinating appointments with other healthcare providers to whom the patient is being referred.

4.2 The pharmacist works with the patient to maximize patient understanding and involvement in the therapy plan, assures that arrangements for drug therapy monitoring (e.g. laboratory evaluation, blood pressure monitoring, home blood glucose testing, etc.) are made and understood by the patient, and that the patient receives and knows how to properly use all necessary medications and related equipment. Explanations are tailored to the patient's level of comprehension and teaching and adherence aids are employed as indicated.

4.3 The pharmacist assures that appropriate mechanisms are in place to ensure that the proper medications, equipment, and supplies are received by the patient in a timely fashion.

4.4 The pharmacist documents in the medical and/or pharmacy record the steps taken to implement the plan including the appropriate baseline monitoring parameters, and any barriers which will need to be overcome.

4.5 The pharmacist communicates the elements of the plan to the patient and/or the patient's other healthcare provider(s). The pharmacist shares information with other healthcare providers as the setting for care changes, in order to help maintain continuity of care as the patient moves between the ambulatory, inpatient or long-term care environment.

5. **Monitoring and Modifying the Plan/Assuring Positive Outcomes**

5.1 The pharmacist regularly reviews subjective and objective monitoring parameters in order to determine if satisfactory progress is being made toward achieving desired outcomes as outlined in the drug therapy plan.

5.2 The pharmacist and patient determine if the original plan should continue to be followed or if modifications are needed. If changes are necessary, the pharmacist works with the patient or caregiver and his/her other healthcare providers to modify and implement the revised plan as described in "Formulating the Plan" and "Implementing the Plans" above.

5.3 The pharmacist reviews ongoing progress in achieving desired outcomes with the patient and provides a report to the patient's other healthcare providers as appropriate. As progress towards outcomes is achieved, the pharmacist should provide positive reinforcement.

5.4 A mechanism is established for follow-up with patients. The pharmacist uses appropriate professional judgement in determining the need to notify the patient's other healthcare providers of the patient's level of adherence with the plan.

5.5 The pharmacist updates the patient's medical and/or pharmacy record with information concerning patient progress, noting the subjective and objective information which has been considered, his/her assessment of the patient's current progress, the patient's assessment of his/her current progress, and any modifications that are being made to the plan.

Communications with other healthcare providers should also be noted (Pharmaceutical Care Guidelines Advisory Committee, 1995).

1.10. Pharmaceutical care activities and responsibilities

Pharmacists activities

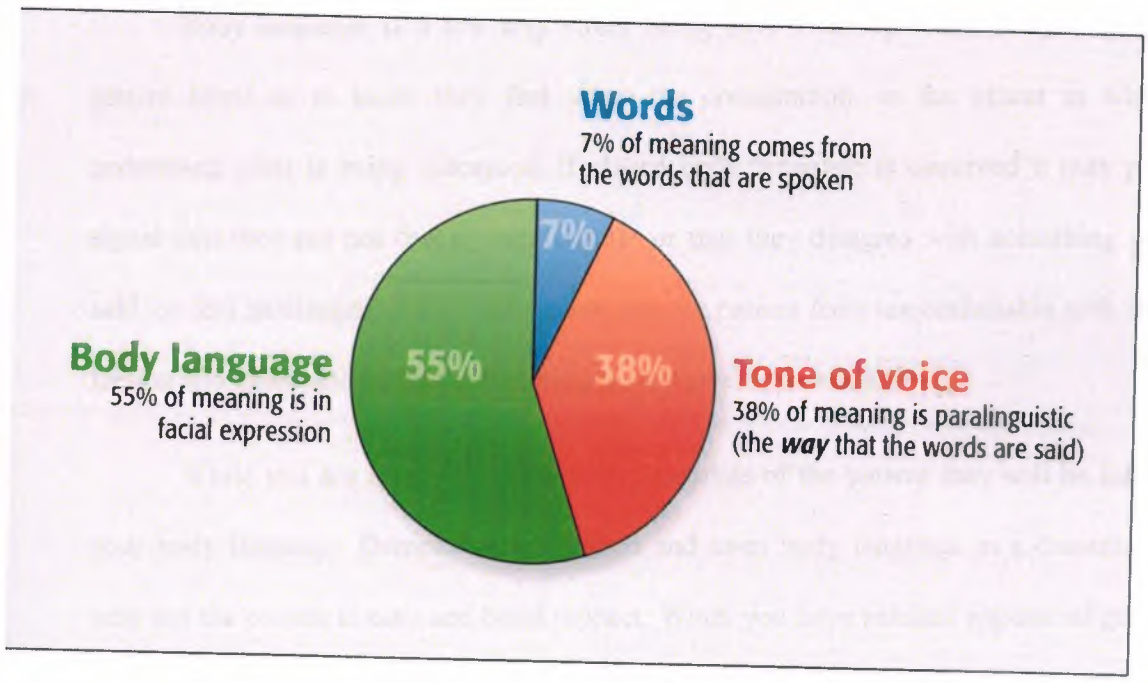
There are four parameters that can be measured through PC activities; assessment, identify related drug problems, develope a care plan, and follow-up evaluation. The PC activities considered in the assessment are; meet the patient, elicit information from the patient, and engage in medication consultation services. Another set of activities of identify related drug problems (DRPs) is to make rational drug therapy decisions using pharmacotherapy workup. Developing a care plan activities are; establishing goal of therapy, selecting approperiate interventions for resolutions of drug related problems, acheiving goals of therapy, and prevention of potential drug related problems. The last activity in developing a care plan is to schedule a follow-up evaluation. Following-up evaluation requires some activities such as at first elicit and document clinical evidence of actual patient outcomes, including effect of treatment and evidence of adverse events, and compare to goals of therapy. Secondly, assessing the patient for any new drug related problems. The third activity is to schedule the next follow-up evaluation (Clipolle, Strand, & Morley, 2004).

Pharmacists responsibilities

The responsibilities of pharmacists which related to assessment are; to establish a therapeutic relationship, and to discover reasons for the encounter based on patient medication experiences and clinical information. In identifying drug related problems, the resposibilities which taken into account are; Determining whether patient's drug-related needs are being meet, identifying drug related problems such as unnessessary drug therapy, dosages too low,

ineffective drug, adverse drug reaction, needs additional drug therapy, dosage too high, noncompliance. Other actions that pharmacists have to do in developing a care plan are; to determine endpoints and timeframe for goals, to consider therapeutic alternatives, select patient-specific pharmacotherapy and consider non-drug interventions, to educate patient, to establish a schedule that is clinically approperiate and convenient for the patient. The resposibilities of pharmacists when they follow-up evaluation process are; evaluting effectiveness and safety of pharmacotherapy, determining patient compilance, identifying any new drug related problems, providing continuous care (Clipolle, Strand, & Morley, 2004).

1.11.Key communication skills



Graph (4)

Graph (4) shows the most important parameters that control the communication skills, body language, tone of voice, and words (Grimes & Barnett 2014). The communication skills are

important in pharmaceutical care practice and understand the fundamental skills of good communication.

Body language

Body language is the unconscious and conscious transmission and interpretation of feelings, attitudes and moods through:-body posture, movement, physical state, position and relationship to other bodies, objects and surroundings.

Facial expression and eye movement can speak a thousand words. When a persons body language is inconsistent with the words they are saying, it is the body language that tells the story and not the words that are spoken.

Body language is a tow-way street being able to interpret the body language of a patient helps us to know they feel about the consultation, or the extent to which they understand what is being discussed. If closed body language is observed it may provide a signal that they are not feeling comfortable or that they disagree with something you have said, or feel challenged. It may also mean that the patient feels uncomfortable with their own feeling and thraw and is not fully sharing their concerns and belifs.

While you are interrupting the body language of the patient they will be interrupting your body language. Demonstrating relaxed and open body language in a consultation will help but the patient at easy and build rapport. When you have reached appoint of good report of the patient you may see that your body language is synchronised with theirs. (Pohjanoska, Puumalainen, & Airaksinen, 2012).

Verbal language

Language is important in the consultation, not only the words we use but the way in which the words are said. Adopting the general rule of avoiding medical jargon and terminology gives assurance that messages are communicated clearly however, the patient maybe knowledgable about their condition or medicines they may themselves be a healthcare professional. If they have used medical terminology early in the consultation then to respond by using layman's terms may send out signals that you are not listening, or that you though not respect the patient knowledge. Reflecting the language of the patient will help build rapport. Avoiding using words or a particular tone of voice that sends the wrong message for example ''what is your problem today Mr. David?'' can be delivered in many different ways, with empty or with exasperation (Pohjanoska, Puumalainen, & Airaksinen, 2012).

Listening

You may have often hard the advice, '' listen to the patient, they are trying to tell you the diagnosis'' Listening does not only involve using your ears. Facial expressions, body language and verbal tones can give you clues and fresh idea about how the patient is feeling and what they are thinking. Being aware in this way can be useful when there is a psychological origin for a certain behaviour relating to life style choice or medicines adherence. The patient maybe unaware, you may notice that part of their story makes them uncomfortable or hesitant, think about what you read above regarding body language and bear in mind the same applies to a patient, you can learn a lot by looking as well as listening.

Listening is the key to effective communication and consultation skills. Without effective listening skills, patient problems may not be unearthed and a patient – centred approach is not achieved (Pohjanoska, Puumalainen, & Airaksinen, 2012).

1.12. Five Tips for Improving Communication in the Pharmacy

Whereas pharmacy schools now frequently provide communications training, practicing pharmacists may have already developed bad habits and need a refresher course on effective communication. Use these 5 tips to improve your communication skills.

Adjust Your Assumptions

Do not assume that people are listening to you. Individuals' demeanor or how they engage (eg, head nodding, saying "Yes" and "Uh-huh") may cause you to assume they understand, but these physical and verbal cues are reflex behaviors. Therefore, gently ask questions to test understanding and comprehension of important instructions.

Next, question your own assumptions about the person to whom you are speaking. For instance, many patients avoid disclosing embarrassing information or behavior. If you assume they are reluctant to hide certain information, consider asking direct, open-ended questions such as, "Patients often avoid telling health care providers that (they have gained weight, they smoke, they drink too much), but it's important that I know because it will affect your treatment".

Adjust Your Location

Move to a private area of your workplace. This benefits the pharmacist-patient relationship in two important ways. First, it reduces distractions, as you are less likely to be interrupted by other patients or coworkers. In the case of patient counseling, patients are less likely to be distracted by the pharmacy's bustle. Second, it allows privacy. If a coworker's issue is complicated or a patient is embarrassed or ashamed, privacy allows him or her to talk and ask questions in confidence.

Adjust Your Tone

If you get frustrated, your volume may increase, your speaking speed may accelerate, and you may assume unfriendly tone (a sure turnoff for others). You may also find yourself unable to process information or think clearly. Check your feelings as you communicate, and if you feel frustration or anger, pause for a minute, take a deep breath, and take a moment or two to gather your thoughts. Then, start over with a friendly, relaxed tone. Strive to maintain a consistent volume, speaking speed, and tone. If a conversation becomes especially heated, excuse yourself (politely) for a minute or ask to reschedule the discussion for a later time.

Adjust Your Vocabulary

Remember that your vocabulary, while familiar to you and the health care community, may be foreign to others. Although you have spent years studying and working in health care, patients may have spent (10) minutes considering an issue. So, simplify your vocabulary. Ask yourself, "How would I explain this concept to a high school student?" Avoid acronyms and jargon, as well. For example, remember that you know a negative biopsy or lab test is a good thing, but many patients may hear "negative" and jump to the worst possible conclusion. Also, many health care topics are controversial: birth control, unwanted pregnancy, and end of life care are just a few. Avoid inflammatory or judgmental language, and stick to the facts offer no opinion and do not lecture. The same is true for business and personnel issues: choose words carefully, and allow others to explain before you jump to conclusions

Adjust Your Methods

Not everyone learns by listening; many people are visual learners. Also, people with whom you need to communicate may be distracted by any number of things: cell phones, anxiety, other patients, children, etc. If it seems like you are not being understood, consider writing

down the most important aspects of your instructions or discussion to help people engage in the present and remember for the future. Pictures or diagrams may also assist if a medication is especially difficult to administrate.

Miscommunications inside the pharmacy can have life-altering consequences. Pharmacists should refine their communication styles and patterns constantly to ensure patients receive the information they require for effective treatment. If a particular task seems beyond your skills, ask a colleague for assistance. (Wick, 2015)

1.13. Consultation skills

There are many reasons why patients do not adhere to treatment plans or make choices to improve their own health. They may be concerned a bout the medicines they take or disease they have. The skills needed to conduct an effective consultation are as important as clinical knowledge and are essential for effective patient-centred care. They are not difficult to understand or recognise, in fact many of them are skills that we use on a day-to-day basis, but a higher level. However, they can be a challenge to achieve in a healthcare setting when you are dealing with all the other complexities of work. The key consultation skills that you can apply to support an effective patient-centred consultation skills that you can applyto support an effective patient-centred consultation and builds on the learning from communication and consultation (Pohjanoska, Puumalainen, & Airaksinen, 2012).

1.14. Pharmaceutical care documentation

Pharmaceutical care is both a clinical (empirical) and an ethical system and is characterized by a therapeutic dyad of trust and care. Thus, among the most important imperatives of pharmaceutical care are preference of the patient, beneficence, and respect for autonomy, informed consent, and confidentiality. A solid grounding in, and appreciation for, biomedical ethics is essential to the delivery of pharmaceutical care (Pohjanoska, Puumalainen, & Airaksinen, 2012).

1.15. Future Developments

Throughout Western Europe, many studies have been performed in different fields related to pharmaceutical care. However, implementation on a large scale still appears to be lacking, despite the positive outcomes of most studies. Because many pharmacists' associations seem to have committed themselves to implementing pharmaceutical care and pharmacy faculties also have recognized the importance of the topic, it may be expected that there will be more and more pharmaceutical care in pharmacies in the future. However, in addition to reforming the attitude, knowledge, and skills of pharmacists, there also must be some form of remuneration for their provision of pharmaceutica care. In the mean time, the pharmacy and pharmacist associations should make sure that pharmaceutical care (or medication management or whatever it is called) does not develop into an empty phrase, merely meaning "being nice to the patient." Someone in the health care chain should detect, prevent, or correctdrug-related problems. Pharmacists in Europe seem to be in the best position to do this. Pharmaceutical care should therefore become an integral part of the pharmacy profession and of good pharmacy practice (Mil & Schulz, nd).

1.16. The Aim of the study

The aim of this study was to evaluate the knowledge, attitude and practice of community pharmacists towards pharmaceutical care services in Tripoli, Libya. In addition, assessing the pharmacy practice components in the current curriculum is taking the place of a second objective of this research.

1.17. Significance of the study

The significance of this study was to emphesize the mission of the pharmacy profession to society by elaborating on the role of the pharmacist as a member of a health care team. In addition, it assessed the pharmaceutical care implementation in the pharmacy practice. In order to define good pharmacy practice in all sectors and settings, there will be an evaluation of the knowledge, skills and attitudes required for good patient-focused pharmacy practice. Furthermore, this research stated some new roles that pharmacists can assume and suggest changes in education and policy necessary to implement patient-focused pharmacy practice.

1.18. Limitations

The Western region of Libya includes more than two thirds of the total population of Libyan people which is around 6 million. In addition, Tripoli is the capital city of Libya and it has great consideration for research application and over generalized the results for all Libyans which is highly accredited. This study includes the pharmacists who are currently working in pharmacies in Tripoli and other surrounding cities and towns who are of the utmost importance of this research. However, the eastern part of Libya is delimited from the study.

1.19. Research Model

The study conducted by (MA'AJI 2014) is the research model where the same survey is used with different scope of a research. In the model study was carried out in Nigeria whereas the current study conducted in Libya.

1.20. Research Design

This study is designed as a cross-sectional research which intended to ascertain the attitudes of Libyan Pharmacists towards pharmaceutical care implementation in Libya. This research used a qualitative data collection methodology which is clearly presented as predetermined questionnaire of five sections. The first part covers demographic information (age, gender, and years in practice). The other four parts are designed to state the statements of two-point Likert scale options about the participants' attitudes with regard to pharmaceutical care services, attitudes, practices and barriers.

1.21. The research questions

1. Do pharmacists have adequate knowledge about drugs dispensing and reaction?
2. To what extent pharmacists responsible for drug changes or drug related problems?
3. Do pharmacist aware of the value of pharmaceutical care to improve health needs?
4. Will practicing pharmaceutical care in the community pharmacies increase patient confidence in the profession?

2. Literature Review

2.1. Overview

Pharmaceutical Care is defined as the responsible provision of medicines therapy for the purpose of achieving definite outcomes, to improve patient's quality of life (International Pharmaceutical Federation 1989) . Heplar & Strand (1990) defined the of Pharmaceutical care as a philosophy that focuses on the responsibility of pharmacist to meet all of the patient's drug related needsfor the purpose of achieving definite outcomes that improves the patient's quality of life.

Chain pharmacies, including traditional chains, mass merchandisers, and supermarkets, comprise more than 50% of community pharmacies in the US. Dispensing of drugs remains the primary focus, yet the incidence of patients being counseled on medications appears to be increasing. More than 25% of independent community pharmacy owners report providing some patient clinical care services, such as medication counseling and chronic disease management (Christensen, 2006).

The Swedish retail pharmacy system of 800 community pharmacies and nearly 80 hospital pharmacies is unique in that it is organized into one single, government owned chain, known as Apoteket AB. The pharmacy staff consists of pharmacists, prescriptionists, and pharmacy technicians. Some activities related to pharmaceutical care have been directed toward specific patient groups during annual theme campaigns. (Westerlund, 2006)

The number of community pharmacies in Estonia increased from 270 in 1992 to 523 in 2007. In addition to dispensing, Estonian pharmacies retain a focus on compounding of extemporaneous products and supply of herbal medications. Research into pharmaceutical

care has addressed topics including pharmaceutical policy and the quality of pharmacy services provided at community pharmacies. Pharmaceutical care services in Estonian community pharmacies have become more patient-oriented over the past 17 years. However, community pharmacies continue to retain a focus on traditional roles.(Daisy Volmer, Kaidi Vendla, Andre Vetka, J Simon Bell, and David Hamilton 2008).

In Moldova pharmacists appear to be deeply rooted in the traditional approach to the practice of pharmacy pertaining mainly to distributive practice model and are somewhat distant from the other models of practice such as pharmaceutical care, drug information and self-care. It also appears that younger pharmacists identify more with the current trends in practice implying that they would be more receptive to embracing such models of practice (Cordina, Safta, Ciobanu & Sautenkova,2007).

A research conducted by (Sancar, Okuyan, Apikoğlu-Rabus, & Vehbi 2013) conducted to community pharmacists organized by Turkish Pharmacists' Association Academy (n=385) between 2003 and 2005. Majority of the pharmacists (86.8%) were willing to provide pharmaceutical care services and 78.9% considered these services as pharmacists' duty. (Sancar, Okuyan, Apikoğlu-Rabus, & Vehbi (2013).

A study carried out by (Bulajeva, 2010) revealed that a number of uncertainties associated with the assessment of quality of services in the community pharmacies. These uncertainties relate both to the tools used to measure the quality of the pharmaceutical care, and to the level of awareness of the representatives regarding the activities undertaken in their pharmacies. Sun, Li, & Zhu (2013) conducted a research on 212 participants and found 74.5% students choose "like it very much" which illustrates that students hold positive attitude

toward practical training and is helpful to carry out the training smoothly. There is only one difference that girls found to be satisfied more than boys (Sun, 2013).

Participants listed the major barriers to conduct pharmaceutical care practice as follows: "lack of knowledge of drugs and disease states; lack of technical knowledge of how to provide pharmaceutical care practice; lack of communication with physicians and stationary workload".Sancar, & et al. (2013).

From the 5628 papers identified, 63 studies in 67 papers were included worldwide that most pharmacists viewed public health services as important and part of their role but secondary to medicine related roles. In addition, pharmacists' confidence in providing public health services was on the whole average to low (Eades, Ferguson, &O'Carroll,2011).

In one of the African countries 'Nigeria', University of Nigeria pharmacy students had a positive attitude towards pharmaceutical care. Pharmacies were students acquire practice and experience should be designed to enable students observe the integration of pharmaceutical care activities into pharmacy practice (Udeogaranya, Ukwe&Ekwunife2009).

In another study in the south-western of Nigeria there were 105 participants giving a response rate of 87.7%. Proportion of respondents that were working in the hospitals was 44.8% while 46.7% were practicing in community pharmacy setting. This study resulted in that the attitude of the pharmacists towards pharmaceutical care implementation is good. However, the technical knowledge about how to implement the concept is weak,Suleiman&Onaneye (96-2011).

In the study of Ma'aji (2014) conducted a research pharmacists and found that there is a deficit in knowledge and practice of pharmaceutical care, and a positive attitude towards pharmaceutical care, a lack of competence to practice pharmaceutical care in Nigeria.

As revealed in a study conducted by Abduelkarem, (2014) that colleges of pharmacy in developing countries need to revise and update their curricula to accommodate the progressively increasing development in the pharmaceutical education and the evolving new roles of practicing pharmacists in their community.

In Libya where the results obtained of participants from the study of (Abrika & Hassali, 2013) revealed that social pharmacy subjects are not fully thought out and given priority within the Libyan pharmacy curriculum.That is, the full development and incorporation of the behavioural sciences into the professional curriculum is still needed.

The current study will be the recent updating reference with greater number of participants compared with other studies carried out in Libya. It tends to investigate the Libyan pharmacists' attitudes towards phrmaceutical care services, practices, attitudes and barriers that encountered in the community pharmacy profession.

3. Methodology

3.1. Overview

This study was conducted between February and March, 2016. It involved the community pharmacists who were working in pharmacies within Tripoli province, Western part of Libya. This study was done and data was collected from (n= 286) pharmacists working in community pharmacies. A pilot sampling of (54) participants was carried out and verbal consent was obtained from all participants prior to study.

3.2. Participants

The participants of this research are Libyan Pharmacists who worked in pharmacies inthe western part of Libya (Tripoli) with different gender, age, and experience backgrounds. With regard to gender, there were 154 (53,8%) males and 132 (46,2%) females which is approximately closer to each other. In relation to age, there are tow categories, less than 30 years there were 174 (60,2%) participants, in the more than 30 years there were 112 (39.8%) participants, Experience and background knowledge is divided into tow scales less than 5 years there were 276 (96,5) and more than 5 years 10 (3,5) .

3.3. Material

Self-administered, pretested, and structured; mostly close ended questions was used. The questionnaire covered different sections, as follows: section one: Demographic characteristics, section two: Knowledge on pharmaceutical services. Section three: attitude towards the practice of pharmaceutical care. Section four, pharmaceutical care practice and section five: Barriers to implementation of pharmaceutical care. Descriptive statistics is used to summarise the data and organize them into groups according to the sections of the

questionnaires. Each item of the survey is designed using a 2 point likert scale response format consisting of Yes and No, Agree and Disagree, and a few open ended questions. With an exception for section Five, where there is a 3 point of Likert Scale response format; Agree, Disagree, and No response.

3.4. Data collection

Data were collected using a crosssectional survey. During the period of one months, February to March 2016, a total of (286) questionnaires were distributed. The total number of potential participants was calculated. The conducted of (286) participants who were Libyan pharmacists working in pharmacies in the region of Tripoli and surrounding cities and they agreed to participate in this research and they all responded to the given surveys.

3.5. Data analysis

Data Analysis Statistical package for social sciences SPSS® for Windows, version (21.0) was used for data analysis to present frequency distribution, statistical tests and the appropriate descriptive statistics for demographic characteristics (mean and standard deviation for age). The demographic information that was collected, including age, gender, and year in practice, frequencies and descriptive statistic of each variable was reported and mean and standard deviation, was calculated.

The pearson Chi square Probability test was used to test the significance of association between independent variables and the dependent variables, statistical significance was accepted at P value of < 0.001.

3.6. Ethical considerations

Currently in Libya, there is one accredited association for pharmacists in Tripoli, The directer of thisethical committee has approved the survey of this research to be distributed to all pharmacists in Tripoli region. As part of the ethical requirement for this study, before the commencement, the researcher strictly adhered to the verbal consent of the participants where all participants were assured that their personal information would be kept confidential and anonymous.

4. Results

In table (1) there is almost a half of the particcipants was from both gender. A number of (154) were males that means (53,8%) whereas the female participants were 132 with percentage of (46.2%) out of total number of participants (n=286).

Gender

	Frequency	Percent
Male	154	53,8
Female	132	46,2
Total	286	100,0

Table (1)

In the second table, there is (154) of the participnts fell under the age of less than 30 years with percentage of (53.8%). The least age category is for those who are more than 30 years which received 124 (46.2%) of participants.

Age

	Frequency	Percent
Less than 30 Yrs	162	56,6
More than 30 Yrs	124	43,4
Total	286	100,0

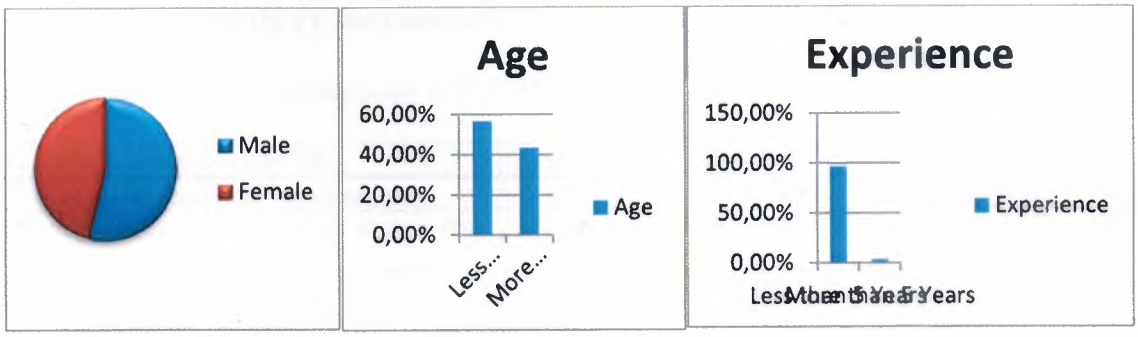
Table (2)

The results showed in table (3) that the most category of experience has choosen by participants was less than 5 years of experience with 276 which means (96.5%) of all participants had recently worked as pharmacist and only (3.5%) fell under the category of more then 5 years which is interpreted as 10 out of 286 were experienced pharmacists.

Experience

	Frequency	Percent
Less than 5 Years	276	96,5
More than 5 Years	10	3,5
Total	286	100,0

Table (3)



Graph (1) Graph (2) Graph (3)

4.1. Distribution of knowledge on Pharmaceutical Care Services

In table (4), the participants of 214 (74,8 %) were against the statement that 'dispensing of mediccation to patients only', where as 72 (25.2%) participants out of 286 were agree. 'Offering advice and councelling during drug dispensing to patients' has met the agreement of (96.9 %) of participants. Although (3.1%) of targeted pharmacists have shown disagreemet. The statement says that 'offering advice to patients only' has gathered negative responses of (90,2%) where as 49 (17.1%) of participants were agreed. The pharmacist's only responsibility is to dispense and counsel the patients on drug prescribed by him/her or the physician's as the forth statement meets 237 (82.9%) of agreement. On the countrary, 49 (17.1%) of the parrticipants were not agreed. The fifth statement of the pharmaceutical care service is 'Reviewing patients drug therapy and secondary changes where necessary' has collected 234 (81.8%) of participants who were supporting this statement, only 52 (18.2%) of participants were against the statement. 212 (74.1%) of participants accepted the idea that 'The pharmacist takes full responsibility of drug related' whereas 74 (25.9%) of participants were standing against it.

Each table has reached a value of significant data, by which calculated using Chai Square Test. In the statement No (1) of the PC Services table, there is a significant *P*value with the age variable at $P<0.005$ and also with experience at $P<0.010$. Whereas, in the

statement No (4) of the PC Services table, there is a significant *P*value with the age variable at P<0.001 and also with experience at P<0.051 as shown below.

No	Pharmaceutical Care Services	Agree %97	Disagree %	Gender	Age	Experience
1	Dispensing of medication to patients only.	72 (25,2%)	**214 (74,8%)**	0.542	**0.005****	**0.010***
2	Offering advice and counseling during drug dispensing.	**277 (96,9%)**	9 (3,1%)	0.433	0.152	0.562
3	Offering advice to patients only.	28 (9,8%)	**258 (90,2%)**	0.243	0.455	0.269
4	The pharmacist's only responsibility is to dispense and counsel the patients on drug prescribed by him or the physician's.	**237 (82.9%)**	49 (17.1%)	0.904	**0.001****	**0.051***
5	Reviewing patients drug therapy and secondary changes where necessary.	**234 (81.8%)**	52 (18.2%)	0.758	0.168	0.495
6	The pharmacist takes full responsibility of drug related.	**212 (74.1%)**	74 (25.9%)	0.819	0.401	0.762

Table (4)

Responses are for all respondents; * Pearson Chi Square Test, Identifies the level of the significant P Value at *P<0.05,* * * Pearson Chi Square Test, Identifies the level of the significant P Value at *P≥0.001* in the responsibility of pharmaciststowards patients?

4.2. Community pharmacist Attitude towards practice of pharmaceutical care.

In the first statement of attitudes in table (5), there was 219 (76.6%) of participants were agree that pharmaceutical care is mandate of pharmacists only. 67 (23.4%) were disagreed to the previously mentioned statement. The following statements have been totally agreed by most of the participants; 266 (93.0%) of participants agreed that 'The primary responsibility of pharmacists in general and community pharmacists is to provide pharmaceutical care' whereas only 20 (7.0%) were disagreed, 274 (95.8%) of participants agreed that 'Pharmaceutical care is a valuable mode of practice and will serve to improve patient health needs'12 (4.2%) were disagreed, 265 (92.7%) of participants agreed that 'Practicing pharmaceutical care in community pharmacies will increase patients confidence in the profession and enhance pharmacy practice', 267 (93.4%) of participants agreed that 'Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care' 19 (6.6%) were disagreed, 231 (80.8%) of participants showed their approval to the statement that 'In order to assure themselves a place in health care team,

community pharmacists must practice pharmaceutical care' 55 (19.2%) were disagreed, 176 (61.5%) of participants agreed that 'Practicing pharmaceutical care is too resource intensive, time consuming and requires more man power', whereas 110 (38.5%) has shown the opposite point of view.

In the statement No (3) of the PC Attitudes table, there is a significant *P*value at P< 0.041 with the gender variable. There is also a significant Pvalue at P<0.057 with regard to age variable. In the statement No (4) in the same table, there is a significance at a level of Pvalue at P<0.033 with regard to gender. In the statement No (7) there is a significance level of Pvalue at P<0.013 concerning the gender variable.

No	Attitude	Agree %	Disagree %	Gender	Age	experience
1	Pharmaceutical care is a mandate of pharmacist only	**219 (76.6%)**	67 (23.4%)	0.168	0.254	0.208
2	The primary responsibility of pharmacists in general and community pharmacists is to provide pharmaceutical care	**266 (93.0%)**	20 (7.0%)	0.411	0.276	0.101
3	Pharmaceutical care is a valuable mode of practice and will serve to improve patient health needs	**274 (95.8%)**	12 (4.2%)	**0.041***	**0.051***	0.351
4	Practicing pharmaceutical care in community pharmacies will increase patients confidence in the profession and enhance pharmacy practice	**265 (92.7%)**	21 (7.3%)	**0.033***	0.682	0.743
5	Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care	**267 (93.4%)**	19 (6.6%)	0.912	0.715	0.390
6	In order to assure themselves a place in health care team, community pharmacists must practice pharmaceutical care	**231 (80.8%)**	55 (19.2%)	0.627	0.060	0.950
7	Practicing pharmaceutical care is too resource intensive, time consuming and requires more man power.	**176 (61.5%)**	110 (38.5%)	**0.013***	0.417	0.919

Table (5)

Responses are for all respondents; * Pearson Chi Square Test, Identifies the level of the significant P Value at *P<0.05,* * * Pearson Chi Square Test, Identifies the level of the significant P Value at *P≥0.001 in the* pharmacists' practice enhancementwithregardtopatients' confidence?

4.1. Community pharmacist Pharmaceutical Care Practice

In table (6), the statement (1-2), there is 266 (93.0%) and 275 (96.2%) of participants were agreed that they collected the data from their patients and they identified the problems of prescription. 194 (67.8%) had reported cases of ADR's by their patients, on the other side,

there was 92 (32.2%) has not reported any cases of ADR's. 248 (86.7%) of participants agreed that 'changing of prescribed medication is part of pharmaceutical care' whereas 37 (12.9%) of participants revealed disagreement.

In the statement No (3) of the PC practices table, it has been shown that there is a significant value at a level of P<0.001 which indicated a high significance related to gender variable. However, in the statement No (4) of the current table, there is a significance of Pvalue levet at P<0.024 with gender and P<0.011 with experience variables as shown below.

No	Practice	Yes %	No %	Gender	Age	Experience
1	Collection of data from your patients.	**266 (93.0%)**	20 (7.0%)	0.567	0.211	0.101
2	Identify prescription problems	**275 (96.2%)**	11 (3.8%)	0.507	0.272	0.520
3	Have you had any reported cases of ADR'S by your patients?	**194 (67.8%)**	92 (32.2%)	**0.001****	0.590	0.881
4	As a pharmacist do you think changing of prescribed medication is part of pharmaceutical care?	**248 (86.7%)**	37 (12.9%)	**0.024***	0.604	**0.011***

Table (6)

Responses are for all respondents; * Pearson Chi Square Test, Identifies the level of the significant P Value at *P<0.05,* * * Pearson Chi Square Test, Identifies the level of the significant P Value at *P≥0.001* in the pharmaceutical care practice?

4.2.Barriers to the implementation of Pharmaceutical Care

In table (7), 212 (74.1%) of participants agreed that there is a 'Poor relationship of community- Pharmacists with other health providers', 25 (8.7%) of them disagreed and 49 (17.1%) showed no response. 181 (63.3%) of participants agreed that there is a 'The current curriculum for pharmacy education is not adequate to support the practice', 70 (24.5%) of them disagreed and 35 (12.2%) showed no response. 162 (56.6%) of participants disagreed that there is a 'Lack of confidence in pharmacists themselves', 98 (34.3%) of them agreed and 26 (9.1%) showed no response. 120 (42.0%) of participants agreed that there is a 'Lack of

trained personnel and support staff to offer Pharmaceutical care.', 116 (40.6%) of them disagreed and 50 (17.5%) showed no response.

In the following table of PC Barriers has noticed significant values for both age and experience. Getting started with age variable which shows a significant Pvalue at P<0.006 in the statement No (1) and in the starement No (2) has reached a significance of Pvalue at P<0.018. The second variable is experience which appeared to be significant with statement No (2) at a level of P<0.026 where as in statement No (4) has a Pvalue at P<0.013 as shown below.

No	Barriers	Agree %	Disagree %	Gender	Age	Experience
1	Poor relationship of community-Pharmacists with other health providers.	**212 (74.1%)**	74 (25.9%)	0.096	**0.006****	0.299
2	The current curriculum for pharmacy education is not adequate to support the practice	**181 (63.3%)**	105 (37.7%)	0.705	**0.018***	**0.026***
3	Lack of confidence in pharmacists themselves	98 (34.3%)	**188 (65.7%)**	0.091	0.060	0.100
4	Lack of trained personnel and support staff to offer Pharmaceutical care.	120 (42.0%)	**166 (58.0%)**	0.416	0.330	**0.013***

Table (7)

Responses are for all respondents; * Pearson Chi Square Test, Identifies the level of the significant P Value at *P<0.05,* * * Pearson Chi Square Test, Identifies the level of the significant P Value at *P≥0.001* in the lack of confidence?

5. Discussion

In the United States of America, more than 25% of independent community pharmacy owners report providing some patient clinical care services, such as medication counseling and chronic disease management (Christensen, 2006). Pharmaceutical care services in Estonian community pharmacies have become more patient-oriented over the past 17 years. However, community pharmacies continue to retain a focus on traditional roles (Volmer, & et al 2008).

A research conducted by Sancar & et al, (2013) conducted to community pharmacists organized by Turkish Pharmacists' Association Academy (n=385) between 2003 and 2005. Majority of the pharmacists (86.8%) were willing to provide pharmaceutical care services and 78.9% considered these services as pharmacists' duty. From the 5628 papers identified, 63 studies in 67 papers were included worldwide that most pharmacists viewed public health services as important and part of their role but secondary to medicine related roles (Eades, Ferguson, &O'Carroll,2011).

On the contrary, the findings of the current research revealed that the Libyan pharmacists agreed that their main duties are by offering advice, counseling during drug dispensing, reviewing patient drug therapy and making secondary changes where necessary should be done by them or physicians.

Sun, Li, & Zhu (2013) conducted a research on 212 participants and found 74.5% students choose "like it very much" which illustrates that students hold positive attitude toward practical training and is helpful to carry out the training smoothly. There is only one difference that girls found to be satisfied more than boys (Sun, 2013). In addition, pharmacists' confidence in providing public health services was on the whole average to low (Eades, & et al,2011). In another study in the south-western of Nigeria there were 105

participants giving a response rate of 87.7%. Proportion of respondents that were working in the hospitals was 44.8% while 46.7% were practicing in community pharmacy setting. This study resulted in that the attitude of the pharmacists towards pharmaceutical care implementation is good. However, the technical knowledge about how to implement the concept is weak, (Suleiman & Onaneye, 2011). In the study of Ma'aji (2014) conducted a research pharmacists and found that there is a deficit in knowledge and practice of pharmaceutical care, and a positive attitude towards pharmaceutical care, a lack of competence to practice pharmaceutical care in Nigeria.

In this study Libyan community pharmacies in Tripoli province have a positive attitude towards pharmaceutical care. They also adhered the significance of pharmaceutical care practice in increasing the patient confidence in the profession, providing pharmaceutical care and serving to improve patient health needs. Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care.

In Moldova pharmacists appear to be deeply rooted in the traditional approach to the practice of pharmacy pertaining mainly to distributive practice model and are somewhat distant from the other models of practice such as pharmaceutical care, drug information and self-care (Cordina, & et al ,2007). In one of the African countries 'Nigeria', University of Nigeria pharmacy students had a positive attitude towards pharmaceutical care. Pharmacies were students acquire practice and experience should be designed to enable students observe the integration of pharmaceutical care activities into pharmacy practice (Udeogaranya, Ukwe & Ekwunife, 2009).

Comparing with the current study, the Libyan pharmacists aproved that the patients are their main source of data collection by identifying prescribtion problems, reporting cases of drug interaction, and changing of prescribed medication are parts of pharmaceutical care.

Participants listed the major barriers to conduct pharmaceutical care practice as follows: "lack of knowledge of drugs and disease states; lack of technical knowledge of how to provide pharmaceutical care practice; lack of communication with physicians and stationary workload".Sancar, & et al. (2013). As revealed in a study conducted by Abduelkarem, (2014) that colleges of pharmacy in developing countries need to revise and update their curricula to accommodate the progressively increasing development in the pharmaceutical education and the evolving new roles of practicing pharmacists in their community. In Libya where the results obtained of participants from the study of (Abrika &Hassali, 2013) revealed that social pharmacy subjects are not fully thought out and given priority within the Libyan pharmacy curriculum.That is, the full development and incorporation of the behavioural sciences into the professional curriculum is still needed.

In a contrast with the present research, there was a poor relationship of community pharmacists with other health providers. Regarding the curriculum issue, the pharmacy education is not adequate to support the practice. In addition, there was a lack of trained personnel and lack of supportive stuff to offer pharmaceutical care. Libyan pharmacists do not have any lack of confidence in themselves.

Conclusion

Libyan community pharmacies in Tripoli province has a positive attitude towards pharmaceutical care. They also adhered the significance of pharmaceutical care practice in increasing the patient confidence in the profession. Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care. However, the current curriculum for pharmacy education is not adequate to support the practice. There is no significance has been shown with regard to pharmaceutical care practice. There is a poor relationship of community- Pharmacists with other health providers. There is a self-confidence in pharmacists themselves however, there is also a lack of trained personnel and support staff to offer Pharmaceutical care. There has been an awareness of Libyan pharmacists' responsibility towards patients and of drug related.

Reference

1. Abduelkarem, A. (2014). Extending the Role of Pharmacists in Patient Care . *Pharmacology & Pharmacy*, 865-875.
2. Abrika, O. S., & Hassali, M. A. (2013). Are Social Pharmacy Courses Needed in Pharmacy Curriculum in Libya. *International Journal of Pharmaceutical Sciences and Research*, 2696-2704.
3. Acheson, D. (1988). *Public Health.* Great Britain: Pharmaceutical Services Negotiating Committee.
4. Al-Akshar, S., Metwaly, Z., & Shamssain, M. (2014). Patients' Perceptions of Community Pharmacy Practice in UAE. *IOSR Journal Of Pharmacy*, 08-14.
5. Bulajeva, A. (2010). *PHARMACEUTICAL CARE SERVICES AND QUALITY MANAGEMENT IN COMMUNITY PHARMACIES – ANINTERNATIONAL STUDY.* Helsinki: Division of Social Pharmacy.
6. Christensen, F. (2006). Pharmaceutical care in community pharmacies: practice and research in. *Ann Pharmacother* , 7-8.
7. Cordina, M., Safta, V., Ciobanu, A., & Sautenkova, N. (2007). An Assessment of Community Pharmacists' Attitudes towards Professional Practice in the Republic of Moldova. *Pharmacy Practice*, 1-8.
8. Desselle.p.shane/Zgarrick.p.divid 2009 pharmacy management (2ed)The McGraw –Hill Companies , Inc.the USA ISBN 978-0-07-149436-6.
9. Eades, C. E., Ferguson, J. S., & O'Carroll, R. E. (2011). Public Health in Community Pharmacy: A systematic review of pharmacist and customer views. *BMC Public Health*, 1-13.
10. Giberson S, Yoder S, Lee MP. Improving Patient and Health System Outcomes through Advanced Pharmacy Practice. A Report to the U.S. Surgeon General. Office of the Chief Pharmacist. U.S. Public Health Service. Dec 2011.

11. Grimes, L & Barnett, N 2014. Consultation skills of pharmacy practice:Taking a patient-centrred approach. HMSO, UK.

12. Hepler, C. (1990). Opportunities and responsibility in pharmaceutical care . *American Journal of Hospital Pharmacy* , 533-542.

13. Hepler CD, Strand LM, Opportunities and responsibilities in pharmaceutical care, Am J Hosp Pharm. 1990; 47, 533-543.

14. International Pharmaceutical Federation 1989.(Accessed 10th March 2016). Available at www.fip.org/files/fip/PharmacyEducation.pdf

15. J. W. Foppe van Mil, & Martin Schulz, (nd). A Review of Pharmaceutical Care in Community Pharmacy in Europe.

16. MA'AJI, H. U. (2014). Assessment of Kowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in Kaduna State, Nigeria. *International Journal of Pharmacy Teaching & Practice*, 972-976.

17. Morak, S. (2010). Understanding the pharmaceutical care: concept and applying it in practice. *GÖG, Pharmaceutical Care* , 1-30.

18. PHARMACEUTICAL CARE CONTINUING EDUCATION PROGRAM. *Turk J Pharm*, 245-254.

19. Pharmaceutical Care Guidelines Advisory Committee, 1995. Pharmaceutical care activities and responsibilities. approved by the APhA Board of Trustees.

20. Pohjanoska, M., Puumalainen, I., & Airaksinen, M, 2012. Counselling, Concordance and communication: Innovative Educatioin for Pharmacists (2 Ed). FIP and IPSF.

21. Sancar, M. (2013). OPINION AND KNOWLEDGE TOWARDS PHARMACEUTICAL CARE OF THE PHARMACISTS PARTICIPATED IN CLINICAL PHARMACY.

22. Suleiman, I. A., & Onaneye, O. (2011). Pharmaceutical Care Implementation . *International Journal of Health Research*, 91-97.

23. Sun, P. (2013). The Teaching Exploration on Practical Training of Pharmaceutical Service Skill inside the school for Higher Vocational Education. *Atlantis Press* , 665-668.

24. Tonna ,antonella p., Derek stewart , and Dorothy Mccaig . (2008)"international Overview Of Pharmacist prescribing "J Malta Coll Pharm prac 14:20_26.

25. Udeogaranya, P. O., Ukwe, C. V., & Ekwunife, O. I. (2009). Assessment of Attitudes of University of Nigeria Pharmacy Students towards Pharmaceutical Care. *Pharmacy Practice*, 145-149.

26. Volmer, D. (2008). Pharmaceutical Care in Community Pharmacies: Practice and Research in Estonia. *ANNALS OF PHARMACOTHERAPY* , 1104-1111.

27. Westerlund, B. (2006). Pharmaceutical care in community pharmacies: practice and research in. *Ann Pharmacother* , 6.

28. Wick, Jeannette Y. 2015. 5 Tips for Improving Communication in the Pharmacy. Published Online: Thursday, June 18, 2015

29. Wiedenmayer, K., Summers, R.S., Mackie, C. A., Gous, A. G. S., & Everard, M. (2006).

30. *Developing Pharmacy Practice.* Netherlands: World Health Organization and International Pharmaceutical Federation

Appendix I

"Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in Libya." (MA'AJI, 2014)

Dear Libyan Pharmacist,

May I ask for help?. I am **Asma Salem Elkishr**, a master student at pharmacology department of the faculty of pharmacy in Near East University. The aim of the study that I am conducting is to evaluate the pharmaceutical care services, and based on your background knowledge it is also aimed to assess the attitudes and practice of Libyan pharmacists in Tripoli and surrounded cities. Your responses will be kept confidential and anonymous and the results will be only used for research purposes. This is not a **Test** and it will not affect you in any way.

Thank you for your kind cooperation

Doç. Dr Bilgen Başgut Supervisor
Asma Salem Elkishr M.A Student

Part 1: Demographic information

Gender: Male ○ Female ○

Age: 21-25 ○ 26-30 ○ 31 and above ○

Years of experience 1 to 5 ○ 6 to 10 ○ 11 to 15 ○ 16 to 20 ○ 21 & above ○

Part 2: Distribution of knowledge on pharmaceutical care services

No	Pharmaceutical Care Services	Agree	Disagree
1	Dispensing of medication to patients only.	○	○
2	Offering advice and counseling during drug dispensing.	○	○
3	Offering advice to patients only.	○	○
4	The pharmacist's only responsibility is to dispense and counsel the patients on drug prescribed by him or the physician's.	○	○
5	Reviewing patients drug therapy and secondary changes where necessary.	○	○
6	The pharmacist takes full responsibility of drug related.	○	○

Part 3: Community pharmacist's attitude towards practice of pharmaceutical care.

No	Attitude	Yes	No
1	Pharmaceutical care is a mandate of pharmacist only	○	○
2	The primary responsibility of pharmacists in general and community pharmacists is to provide pharmaceutical care	○	○
3	Pharmaceutical care is a valuable mode of practice and will serve to improve patient health needs	○	○
4	Practicing pharmaceutical care in community pharmacies will increase patients confidence in the profession and enhance pharmacy practice	○	○
5	Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care	○	○
6	In order to assure themselves a place in health care team, community pharmacists must practice pharmaceutical care	○	○
7	Practicing pharmaceutical care is too resource intensive, time consuming and requires more man power.	○	○

Part 4: Community pharmacist's pharmaceutical care practices

No	Practice	Yes	No
1	Collection of data from your patients.	○	○
2	Identify prescription problems	○	○
3	Have you had any reported cases of ADR'S by your patients?	○	○
4	As a pharmacist do you think changing of prescribed medication is part of pharmaceutical care?	○	○

Part 5: Barriers to the implementation of pharmaceutical care

No	Barriers	Agree	Disagree	No Response
1	Poor relationship of community- Pharmacists with other health providers.	○	○	○
2	The current curriculum for pharmacy education Is not adequate to support the practice	○	○	○
3	Lack of confidence in pharmacists themselves	○	○	○
4	Lack of trained personnel and support staff to offer Pharmaceutical care.	○	○	○

Thank you for your time, patience, and kind participation ☺

Date: 4/ 2/ 2016

To: The Honorable Chairman of Libyan Pharmacists' Community
Tripoli-Libya

Research Title:

"Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in Libya."

May I ask for help?. I am **Asma Salem Elkishr**, a master student at pharmacology department of the faculty of pharmacy in Near East University. The aim of the study that I am conducting is to evaluate the pharmaceutical care services, and based on the background knowledge it is also aimed to assess the attitudes and practice of libyan pharmacists in Tripoli and surrounded cities. The participants' responses will be kept confidential and anonomous and the results will be only used for research purposes. This is not a **Test** and it will not efftect the participants and the pharmacist's community in any way.

Your approval for this research, will be highly appreciated which helps conducting this study on Libyan pharmacists in Tripoli-Libya and achieving the aims of this study.

Thank you for your kind cooperation

Doç. Dr Bilgen Başgut Supervisor
Asma Salem Elkishr M.A Student

Name	Possition	Signature
Doç. Dr. Bilgen Başgut	**Head of Pharmacology & clinical Pharmacy Department**	
Ibrahim Algondi	**Chairman of Libyan Pharmacists' Community**	