# ROLES OF COMMUNITY PHARMACY IN HEALTH CARE DELIVERY IN EDO STATE

**BY**

**MORGAN ELOGHOSA OSARUMWENSE**

**PHA1505955**

**DEPARTMENT OF CLINICAL PHARMACY AND PHARMACY PRACTICE**

**FACULTY OF PHARMACY**

**UNIVERSITY OF BENIN**

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**MORGAN ELOGHOSA OSARUMWENSE**

**PHA1505955**

**SUPERVISED BY**

**PROFESSOR EHIJIE F.O ENATO**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF CLINICAL PHARMACY AND PHARMACY PRACTICE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DOCTOR OF PHARMMACY (PHARM. D) DEGREE OF THE UNIVERSITY OF BENIN, NIGERIA.**

**SEPTEMBER, 2023**

## CERTIFICATION

This is to certify that this work was done by MORGAN ELOGHOSA OSARUMWNESE in the Department of Clinical Pharmacy and Pharmacy Practice, Faculty of Pharmacy, University of Benin, Benin City, Nigeria, in partial fulfillment for the award of the Pharm. D degree of the University.

_____ _____

**Eloghosa Osarumwense Morgan** Date
(Student)

_____ _____

**Prof Ehijie F.O Enato** Date
(Project Supervisor)

_____ _____

**Prof. (Mrs) S.F Usifoh** Date
(Head of Department)

## DEDICATION

This work is dedicated to God Almighty and to my wonderful mother Mrs Oyema Morgan who has stood by me throughout and have been a great support system.

## ACKNOWLEDGEMENT

I thank the almighty God for, his mercy, grace, love and compassion.

I sincerely appreciate my wonderful project supervisor professor Ehijie F.O Enato

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## TABLE OF CONTENT


Title page -- -- -- -- -- -- -- -- -- -- i

Certification ---- -- -- -- -- -- -- -- -- -- ii

Dedication -- -- -- -- -- -- -- -- -- -- -- iii

Acknowledgement -- -- -- -- -- -- -- -- -- -- iv

Table of content -- -- -- -- -- -- -- -- -- -- v

List of tables -- -- -- -- -- -- -- -- -- -- vi

Abstract -- -- -- -- -- -- -- -- -- -- -- vii

**CHAPTER ONE**

1.0 introduction -- -- -- -- -- -- -- -- -- -- 1

1.1 Background of Study -- -- -- -- -- -- -- -- -- 1

1.2 Problem Statement -- -- -- -- -- -- -- -- -- 2

1.3 Objectives Of The Study -- -- -- -- -- -- -- -- 3

1.4 Relevance of the Study -- -- -- -- -- -- -- -- -- 3

1.5 Literature Review -- -- -- -- -- -- -- -- -- 4

**CHAPTER TWO**

2.0 METHODS -- -- -- -- -- -- -- -- -- -- 7

2.1 Introduction -- -- -- -- -- -- -- -- -- -- 7

2.2 Study design and Setting -- -- -- -- -- -- -- -- 7

2.3 Study Participants -- -- -- -- -- -- -- -- -- 7

2.4 The Instrument -- -- -- -- -- -- -- -- -- -- 7

2.5 Sample Size -- -- -- -- -- -- -- -- -- -- 8

2.6 Data collection -- -- -- -- -- -- -- -- -- -- 8

2.7 Sampling Technique -- -- -- -- -- -- -- -- -- 8

2.8 Inclusion criteria -- -- -- -- -- -- -- -- -- 9

2.9 Exclusion criteria -- -- -- -- -- -- -- -- -- 9

2.10 Data analysis -- -- -- -- -- -- -- -- -- -- 9

**CHAPTER THREE**

3.0 Results -- -- -- -- -- -- -- -- -- -- -- 10

**CHAPTER FOUR**

Discussion -- -- -- -- -- -- -- -- -- -- -- 20

**CHAPTER FIVE**

Conclusion -- -- -- -- -- -- -- -- -- -- -- 25

Recommendation -- -- -- -- -- -- -- -- -- -- 25

Reference -- -- -- -- -- -- -- -- -- -- -- 26

## LIST OF TABLES

Table 3.1: Table representing demographic data. (N=99) -- -- -- -- -- 11

Table 3.2: Community Pharmacy Workers (N=99) -- -- -- -- -- 12

Table 3.3: Services offered by the pharmacy (N=99) -- -- -- -- 14

Table 3.4: Reason why the community pharmacy cannot perform the service effectively (N=99) -- -- -- -- -- -- -- -- -- -- -- 16

## ABSTRACT

**Introduction:** The role of community pharmacies in healthcare delivery is indispensable, they serve as vital hubs within the healthcare system.

**Objectives:** The research works aims to assess the services that community pharmacies in Edo state Nigeria offer and also limitations that prevent them or reduce their capacity to perform these services.

**Method:** A cross sectional survey was distributed among community pharmacists in Edo state, Nigeria, The data was collected using a well validated questionnaire utilizing the convenience sampling technique. The data gotten was analyzed using SPSS 21.

**Results:** Out of the 99 respondents, 58.6% were male and 41.4% were female. The top services that were offered often by Community pharmacies were: handling and storage of medication (90.9%), sore throat, cough and flu (87.9%), aches and pains (83.8%), blood pressure tests (81.8%), prescribed medication counselling (79.8%), Stomach issues (diarrhoea, constipation) (78.8%). Major challenges to community pharmacy service were time constraints(43.4%) and capacity constraints(43.4%)

**Conclusion:** This survey uncovers services and challenges in community pharmacies, emphasizing their vital role in accessible healthcare. The prevalent services highlight their importance. Challenges of time and capacity (42.2%) underline difficulties. Addressing these challenges will be crucial in ensuring the continued delivery of high-quality services to the community.



**Keywords:** Community pharmacy, Healthcare delivery, Role.

# CHAPTER ONE

# INTRODUCTION

## 1.1 BACKGROUND OF STUDY

According to WHO (1994,) "Community pharmacists are the health professionals most accessible to the public. They supply medicines in accordance with a prescription or, when legally permitted, sell them without a prescription. In addition to ensuring an accurate supply of appropriate products, their professional activities also cover counselling of patients at the time of dispensing of prescription and non-prescription drugs, drug information to health professionals, patients and the general public, and participation in health-promotion programmes. They maintain links with other health professionals in primary health care"

Community pharmacies are indispensable in healthcare delivery they serve as vital hubs within the healthcare system. These are not merely centers where medications are dispensed they are also dynamic healthcare centers that offer a wide array of services and contribute significantly to improving the health and well-being of the local population (Ilardo ML *et a*l., 2020).

The roles and contribution of community pharmacies include improving patient care, promoting public health, and enhancing medication management (Mark *et al., 2020*). The roles that community pharmacies play in healthcare has made them key players in the pursuit of accessible, quality healthcare for all.

In Edo state, Nigeria, where the health care needs are diverse and complex, the community pharmacies play a pivotal role in bridging the gap between patients and healthcare providers.

The roles that community pharmacies play in healthcare has made them key stakeholders in the pursuit of accessible, quality healthcare for all(mark *et al.,* 2020).

## 1.2 PROBLEM STATEMENT

In the constantly changing landscape of pharmacy practice, pharmacists have taken on multifaceted roles, encompassing not only the traditional compounding and dispensing of medications but also the exploration of innovative ways to deliver pharmaceutical care to patients. By evolving, community pharmacies have emerged as indispensable within the healthcare system.

Community pharmacies have transcended their conventional functions as mere dispensaries of medications. They have transformed into dynamic healthcare centers offering a diverse array of services that significantly contribute to the enhancement of the health and well-being of local populations. These contributions span a broad spectrum, including improving patient care, promoting public health, and enhancing medication management.

Recognizing the pivotal roles that community pharmacies play in healthcare, they have become key players in the pursuit of accessible and high-quality healthcare for all. This significance is particularly pronounced in regions with diverse and complex healthcare needs, such as Edo state, Nigeria, where community pharmacies serve as vital intermediaries between patients and healthcare providers.

However, amidst these promising developments, challenges persist. The effective realization of the full potential of community pharmacies faces hurdles that need to be addressed. These challenges may encompass issues related to operational constraints, regulatory frameworks, resource allocation, and the evolving expectations of healthcare consumers.

Therefore, this study endeavors to delve into the intricacies of community pharmacy practice, with a specific focus on Edo state, Nigeria. By identifying and analyzing the challenges faced by community pharmacies in fulfilling their roles effectively within the healthcare system, this research aims to contribute to the ongoing efforts to ensure accessible, quality healthcare for all in this complex healthcare landscape.

## 1.3 LITERATURE REVIEW

### 1.3.1 Community pharmacy in Nigeria

Historically, the community pharmacist's role within practice consisted of primarily compounding and packaging medicines from prescriber-supplied prescriptions (Harding and Taylor, 1997). As the number of dispensed items increased, pharmaceutical companies responded by pre-packing medicines, and providing patient information leaflets that covered key pieces of information about the medicine, reducing the technical input required from the pharmacists (Anderson, 2007). Community pharmacists are the most accessible and readily available health care professionals in the neighbourhood. They are usually the first port of call for patient seeking healthcare services (Philip, 2017)

### 1.3.2 Community pharmacy as a source of health Education

Health education is defined by WHO (1998: 4) as: "Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health" Although no figures are available, health literacy and numeracy are low in Libya. Since people with low health literacy have poorer health than those with adequate health literacy, improving health literacy is an important factor in reducing health inequalities (Anderson and Blenkinsopp, 2011). Health education aims to do more than just convey information; it also strives to nurture motivation, skills, and the confidence, or self-efficacy, needed to empower individuals to enhance their health. (Anderson and Blenkinsopp, 2011)

### 1.3.3 Evolution of Pharmacist's Roles in Health Care Delivery

Over the years, the role of community pharmacists has evolved significantly(Jean-Venablme et al., 2019).They have evolved beyond being mere medication dispensers, assuming essential roles within the healthcare team. Their accessibility further enhances their contributions to public health.

Globally, pharmacists have evolved their role over the past four years to focus more on patient-centered care. Community pharmacists are now actively engaged in public health initiatives and play a vital role in linking individuals to a range of community services. The strategic placement of community pharmacies ensures that pharmacists can interact with diverse communities, thus improving access to healthcare services.

Legislative and policy changes have expanded the scope of practice for pharmacists, enabling them to address new and emerging health challenges. In tandem with these changes, community pharmacists have increasingly adopted a patient-centered perspective, which is highly desirable in the field of healthcare. This shift highlights the transformative nature of the pharmacist's role in modern healthcare systems. (Sarah *et al.,* 2012). In light of the expanded scope of practice, services that emphasize personalized patient care and clinical decision-making are now referred to as extended services. These often necessitate additional education, training, or the demonstration of competence. Examples of such services include medication reviews, prescribing, referrals, laboratory test ordering and interpretation, and administering injections.

As patient care continues to evolve in the field of pharmacy practice, some regions have adapted their pharmacy curricula and certifications to support pharmacists' roles as primary care providers. For instance, North American, European, and Oceanian countries have transitioned from the Bachelor of Science in Pharmacy (BScPharm) program to the Doctor of

Pharmacy (PharmD), a 6-year program that places a strong emphasis on therapeutics and patient care. In response to these changes, some Nigerian institutions, like the University of Benin, have also adopted the PharmD curriculum. This shift in education reflects the evolving and more patient-centered nature of pharmacy practice.

### 1.3.4 Community pharmacist and patient safety

A patient safety practice was defined as 'a type of process or structure whose application reduces the probability of adverse events resulting from exposure to the healthcare system across a range of diseases and procedures' (Shojania *et al.,* 2001).

Community pharmacist ensure medication safety in a similar fashion to how they would in any other practice enviroment: throughout the medication-use process, including the ordering of medications to their storage, transcription, preparation, dispensing, counseling, and more.

## 1.4 OBJECTIVES OF THE STUDY

### General Objectives

To identify the roles and contribution of community pharmacist in health care delivery.

### Specific Objectives

1. To identify the roles and responsibilities of community pharmacists in health care.
2. To explore the challenges faced by community pharmacists in fulfilling their roles and propose potential solutions.

## 1.5 RELEVANCE OF THE STUDY

The relevance of this study lies in its potential to make a significant contribution to both the field of pharmacy practice and the broader realm of healthcare. There are several key points highlighting the study's relevance which include:

Its focus on community pharmacies, which are essential components of the healthcare system. By understanding the challenges they face, this research can lead to strategies and recommendations to enhance the quality and effectiveness of pharmacy services thereby improving patient care.

Its also highlights the Public Health Impact of community pharmacists and how they increasingly contribute to public health through services like health screenings. Addressing their challenges becomes crucial for overall public health improvement.

While the study focuses on Edo state, Nigeria, its findings may have relevance and applicability to community pharmacy practices in other regions and countries, making it of interest to a broader international audience.

# CHAPTER TWO

# METHODS

## 2.1 STUDY DESIGN AND SETTING:

The research adopted a descriptive cross-sectional study design, which allowed for the collection of data at a specific point in time to assess the services community pharmacies offer and their limitations. It was carried out at the August 2023 ACPN meeting at the Thames Event center, Sapele Road, Benin City, Edo State.

## 2.2 STUDY PARTICIPANTS

The participants included community pharmacists practicing full time or part time in Edo State, Nigeria.

## 2.3 THE INSTRUMENT

The research employed a structured questionnaire as the primary data collection tool. Questionnaire items were suggested by literature review and expert opinion. The questionnaire underwent validation by an academic pharmacist who is my project supervisor. It was also subjected to a focused group discussion with my project mates. Modifications were made to the questionnaire based on problems identified by my supervisor and my mates in order to enhance the clarity and accuracy of the question

## 2.4 SAMPLE SIZE

The sample size was chosen by taking into consideration total population of community pharmacist registered with the Edo state chapter of the ACPN. The total population is 443. The sample size was determined using the Raosoft sample size calculator (accessible at

URL/www.raosoft.com). The calculated sample size was 206, allowing for a 5% margin of error at a 95% confidence level. An additional 30% was included to account for potential dropouts and attrition. However, due to constraints on data collection imposed by the study's limited duration, a total of 99 responses were collected. The response rate was calculated as follows: 99 respondents out of a possible 268, resulting in an 39.94% response rate.

**2.5 DATA COLLECTION**

The questionnaire was made up of three section, demographics, community pharmacy workers, and services the community pharmacies offers, and barriers to offering the services.

For the demographic data, information on the age range of the respondent, sex, number of years in community practice, job status, and local government area where the pharmacy is located were taken. The community pharmacy workers section collected data on the number of pharmacist and pharmacy assistants that are available at any given time.

For the accessing the services the community pharmacy offers section, a 4-point scale with 4 as “nil”, 3 as “once in a while” 2 as “occasionally” and 1 as”often” was used. The final questionnaire was distributed to the 102 pharmacist present at the ACPN meeting in Edo State.

**2.6 SAMPLING TECHNIQUE**

The sampling technique employed for this study was convenience sampling. The pharmacist present at the ACPN meeting were given the questionnaire.

## 2.7 INCLUSION CRITERIA

Registration with Pharmacy Council of Nigeria (PCN), Registration with Association of Community Pharmacist of Nigeria, A full or part time pharmacist(s) working in a community pharmacy in Edo state.

## 2.8 Exclusion criteria

A non community pharmacist

A community pharmacist practicing outside Edo state.

## 2.9 DATA ANALYSIS

The data collected was coded and entered into an Excel spreadsheet for sorting and exported to SPSS for analysis and calculation of percentages, means, and standard deviations.

# CHAPTER THREE

# RESULTS

**Table 3.1: Table representing demographic data**.

Out of the 99 respondents, 58.6% were male community pharmacists, while 41.4% were female community pharmacists. Among these respondents, the majority, at 47.5%, were community pharmacists aged above 30 years. Furthermore, a significant 77.7% of the respondents worked as employees in community pharmacies. In terms of geographical distribution, Oredo Local Government Area had the highest number of community pharmacies at 40.4%, followed by Ikpoba Okha at 33.3%. Egor Local Government Area ranked third with a presence of 17.2% of the community pharmacies.

**Table 3.2: Community Pharmacy Workers**

The results revealed that 81.8% of the pharmacists reported having one pharmacist on duty at any given time, with 15.2% indicating the presence of two pharmacists simultaneously. Additionally, a substantial 43.4% of the respondents noted that two pharmacy technicians/assistants were present in the community pharmacy at any given point.

**Table 3.1: Table representing demographic data. (N=99)**

| Variables | Frequency | Percent |
|---|---|---|
| **Age** | | |
| <21 years | 3 | 3.0 |
| 21-25 years | 8 | 7.8 |
| 25-30 years | 41 | 40.2 |
| >30 years | 47 | 47.5 |
| **SEX** | | |
| Male | 58 | 58.6 |
| Female | 41 | 41.4 |
| **Experience in community pharmacy practice** | | |
| <1 year | 7 | 7.1 |
| 1-3 years | 41 | 41.4 |
| 4-6 years | 23 | 23.2 |
| >7 years | | |
| **Job Specification** | | |
| Owner | 25 | 25.3 |
| Employee | 74 | 74.7 |
| **Job Status** | | |
| Part time | 15 | 15.2 |
| Full time | 84 | 84.8 |
| **Pharmacy Location** | | |
| Egor | 17 | 17.2 |
| Ikheuniro | 2 | 2.0 |
| Ikpoba Okha | 33 | 33.3 |
| Ohha/ogeghe | 1 | 1.0 |
| Oredo | 40 | 40.4 |
| Ovia North East | 5 | 5.1 |
| Uhunmwonde | 1 | 1.0 |

**Table 3.2: Community Pharmacy Workers (N=99)**

| Variables | Frequency | Percent |
|---|---|---|
| **How many pharmacists are on duty at any single point in time** | | |
| 0 | - | - |
| 1 | 81 | 81.8 |
| 2 | 16 | 16.2 |
| 3 | 2 | 2.0 |
| >3 | - | - |
| **How many pharmacy technicians/assistants are on duty at any single point in time** | | |
| 0 | 12 | 12.1 |
| 1 | 24 | 24.2 |
| 2 | 43 | 43.4 |
| 3 | 16 | 16.2 |
| >3 | 4 | 4.0 |

**Table 3.3: Services offered by the pharmacy**

The most frequently offered services by community pharmacies included handling and storage of medication (90.9%), addressing minor ailments sore throat, cough, and flu symptoms (87.9%), managing aches and pains (83.8%), conducting blood pressure tests (81.8%), providing prescribed medication counseling (79.8%), and assisting with stomach issues such as diarrhea and constipation (78.8%). In contrast, services like cholesterol testing and community health campaigns were among the least commonly offered by these pharmacies.

**Table 3.3: Reason why the community pharmacy cannot perform the services effectively.**

Notably, time constraints (43.4%) and capacity constraints (43.4%) were major reasons why the community pharmacies were unable to perform the service effectively.

**Table 3.3: Services offered by the pharmacy (N=99)**

| Variables | Never Frequency(%) | Rarely (%) | Occasionally (%) | Often (%) |
|---|---|---|---|---|
| **Medication delivery, Counselling and health education** | | | | |
| Handling and storage of medication | - | 3 (3.0) | 6 (6.0) | 90 (90.9) |
| Prescribed medication counselling | 3 (3) | 2 (2.0) | 15 (15.2) | 79 (79.8) |
| Education on lifestyle modifications | 1 (1) | 1(1.0) | 26 (26.3) | 71 (71.7) |
| Over-the-Counter(OTC) medication counselling | 1 (1.0) | - | 34 (34.3) | 64 (64.6) |
| Family Planning and Sexual Health | 8 (8.1) | 13 (13.1) | 49 (49.5) | 29 (29.3) |
| Ailment-specific Counseling | | 1 (1.0) | 29 (29.3) | 69 (69.7) |
| Management of Long-Term Health Conditions | 1 (1) | 7 (7.1) | 41 (41.4) | 50 (50.5) |
| Others specify _____ | - | - | - | - |
| **Management of Minor ailments** | | | | |
| Aches and pain | - | - | 16 (16.2) | 83 (83.8) |
| Sore throat, cough and flu | - | - | 12 (12.1) | 87 (87.9) |
| Stomach issues (diarrhoea, constipation) | - | - | 21 (21.2) | 78 (78.8) |
| Insomnia and Sleeplessness | 4 (4.0) | 5 (5.1) | 48 (48.5) | 42 (42.4) |
| Minor Ear Irritations | 1 (1.0) | 4 (4.0) | 45 (45.5) | 49 (49.5) |
| Indigestion and Heartburn | - | - | 26 (26.3) | 73 (73.7) |
| Minor Skin Irritations | - | - | 39 (39.4) | 60 (60.6) |
| Minor Eye Irritations | 1 (1.0) | - | 50 (50.5) | 48 (48.5) |
| Oral Health Issues | - | 4 (4.0) | 49 (49.5) | 46 (46.5) |
| Others specify _____ | - | - | - | - |

| | | | | |
|---|---|---|---|---|
| **Pharmaco-therapeutics consult** | 25 | | | 25 |
| Detection and management of adverse drug reactions | 3(3.0) | 12(12.1) | 59(59.6) | 25(25.3) |
| Assessment of drug interactions | 3(3.0) | 8(8.1) | 50(50.5) | 38(38.4) |
| Individualized drug therapy | 14(14.1) | 37(37.4) | 20(20.2) | 28(28.3) |
| Dosage optimization | 1(1) | 7(7.1) | 43(43.4) | 48(48.5) |
| Others specify : post surgical recovery | - | - | 1(1.0) | - |
| **Public health** | | | | |
| Blood glucose test | 3(3.0) | - | 20(20.2) | 76(76.8) |
| Blood pressure measurement | - | - | 18(18.2) | 81(81.8) |
| Birth control dispensing | 4(4.0) | 8(8.1) | 46(46.5) | 41(41.4) |
| Cholesterol testing | 47(47.5) | 15(15.2) | 22(22.2) | 15(15.2) |
| Community Health Campaigns | 37(37.4) | 17(17.2) | 32(32.3) | 13(13.1) |
| Others specify: BMI | - | - | 1(1.0) | |

**Table 3.4: Reason why the community pharmacy cannot perform the service effectively (N=99)**

| Variables | Lack of skill (%) | Lack of man power (%) | Lack of knowledge (%) | Lack of capacity (%) | Other reason (%) |
|---|---|---|---|---|---|
| **Counselling and health education** | | | | | |
| Handling and storage of medication | - | - | - | 1(1.0) | Director influence 2 (2) No time(1) |
| Prescribed medication counselling | - | 1(1.0) | - | - | do not see this class of patients often 3(3.0) (2.9) |
| Education on lifestyle modifications | - | 1.0 | - | - | No time 1(1) |
| Over-the-Counter(OTC) medication counselling | 1.0 | - | - | - | - |
| Family Planning and Sexual Health | - | 7(7.1) | 4(4.0) | 2(2.0) | do not see this class of patients often 9(9.1) |
| Ailment-specific Counseling | - | - | - | - | - |
| Management of Long-Term Health Conditions | - | 1.0 | - | 2(2.0) | patients prefer director 2(2.0) |
| Others specify _____ | - | - | - | - | - |
| **Minor ailments** | | | | | |
| Aches and pain | - | - | - | - | - |
| Sore throat, cough and flu | - | - | - | - | - |
| Stomach issues (diarrhoea, constipation) | - | - | - | - | - |
| Insomnia and | - | 2(2.0) | 4(4.0) | - | do not see this |

| | | | | | |
|---|---|---|---|---|---|
| Sleeplessness | | | | | class of patients often 3(3.0) |
| Minor Ear Irritations | - | - | 4(4.0) | - | - |
| Indigestion and Heartburn | - | - | - | - | - |
| Minor Skin Irritations | - | - | 1(1.0) | - | - |
| Minor Eye Irritations | - | - | 1(1.0) | - | - |
| Oral Health Issues | - | - | - | 4(4.0) | do not see this class of patients often 1(1.0) |
| Others specify | - | - | - | - | - |
| **Pharmaco-therapeutics consult** | | | | | |
| Detection and management of adverse drug reactions | - | 4(4.0) | 1(1.0) | 2(2.0) | No time 5(5.0) Poor feedback 2(2.0) |
| Assessment of drug interactions | - | 3(3.0) | 2(2.0) | - | No time 10(10.1) |
| Individualized drug therapy | - | 2(2.0) | 1(1.0) | 5(5.0) | No time 43 (43.4) |
| Dosage optimization | - | 2(2.0) | 1(1.0) | 1(1.0) | No time 5(5) |
| Others specify : post surgical recovery | - | - | - | - | - |
| **Public health** | | | | | |
| Blood glucose test | - | - | - | 3(3.0) | - |
| Blood pressure tests | - | 1(1.0) | - | - | |
| Birth control dispensing | 1 (1.0) | 4(4.0) | - | 5(5.0) | do not see this class of Patients often 5(5.0) |

| | | | | | |
|---|---|---|---|---|---|
| Cholesterol testing | 2(2.0) | 8(8.0) | 6(6.0) | 43(43.4) | Patients finance 1(1.0%) Patients prefer lab 1(1.0%) |
| Community Health Campaigns | - | 23(23.2) | 3(3.0) | 18(18.2) | New pharmacy 1(1%) Financial constraints 9(9.1) |
| Others specify: BMI | - | - | - | - | |

# CHAPTER FOUR

## DISCUSSION

The demographic data presented offers valuable insights into the composition of the participants in this study, giving a better understanding of the characteristics of community pharmacists in Edo State, Nigeria.

A deeper dive into the age distribution among community pharmacists reveals that the majority of respondents were pharmacists aged 30 years and above. This observation suggests that a significant portion of the community pharmacy workforce in the surveyed area possesses substantial experience. This could signify a degree of stability within the profession and indicate that community pharmacy holds long-term appeal for pharmacists as a career choice. It's worth noting that the challenges, services, and perspectives within community pharmacies might differ across various age groups. Younger pharmacists could potentially bring different expectations and experiences to the profession.

Futhermore, the majority of participants in the study reported being employed in community pharmacies. This underlines the prevalence of a structured employment model within the practice of community pharmacy.

In terms of their geographical distribution, the data showed that Oredo Local Government Area had the highest concentration of community pharmacies, followed closely by Ikpoba Okha Local Government Area, with Egor Local Government Area ranking third. This distribution could have implications for patient accessibility to pharmacy services in the region, with Oredo and Ikpoba Okha Local Government Areas potentially offering more extensive access compared to Egor Local Government Area and the other local government areas in Edo State with a smaller number of pharmacies. This geographic distribution of pharmacies has consequences for the local population. However, a mal-distribution of

pharmaceutical establishments, as noted in Gilbert (1996), limits the scope and benefit of these services to the public.

The study brought to light certain key staffing patterns, with a particular focus on the organization and staffing of community pharmacies. Notably, it was pointed out that there are variations in how community pharmacies are structured and staffed.

A significant majority of respondents reported having only one pharmacist on duty at any given time. This observation is of significant importance since pharmacists play a pivotal role in medication management, patient counseling, and ensuring the safe dispensing of medications (Yalda.s, et al., 2016). Having just one pharmacist on duty might present challenges in delivering these crucial pharmacy services, especially during busy periods. Consequently, it may explain why a substantial number of respondents expressed that a shortage of personnel hindered their effective service delivery. A scarcity of staff can result in an increased workload, leading to heightened stress levels, as discovered in a study conducted on female community pharmacists in the UK (David et al., 2004).

In contrast, a minority of the respondents mentioned that they have two pharmacists working simultaneously. This practice can be viewed positively, as it allows for better coverage and the potential to offer more comprehensive pharmaceutical care to patients. With two pharmacists present, there may be increased opportunities for medication counseling, clinical interventions, and ensuring the safe utilization of medications. A higher number of pharmacists on-site can lead to a reduction in workload, which can be advantageous for the pharmacists (David et al., 2004).

Another notable finding is that the majority of the respondents indicated having two pharmacy technicians or assistants in the community pharmacy at any given time. This can be

advantageous in supporting pharmacy operations, encompassing tasks like prescription preparation, inventory management, and customer service. Maintaining an adequate number of pharmacy technicians can aid in streamlining pharmacy workflow and enhancing overall efficiency. As recognized by (Mustapha et al., 2020), pharmacy technicians are an integral part of the healthcare team, with a crucial role to play in healthcare delivery.

It's clear that community pharmacies play a crucial role in delivering a comprehensive range of essential healthcare services to the community. Notably, the most frequently provided service is the handling and safe storage of medications (Tsitsi et al., 2023). This service underscores the fundamental function of these pharmacies in ensuring the secure and convenient management of medications for the local population, thereby making a significant contribution to overall patient well-being.

Moreover, community pharmacies actively engage in offering counseling and health education services (Segun and Monioluwa, 2022). These services encompass counseling on prescribed medications, education on lifestyle modifications, guidance on Over-the-Counter (OTC) medications, and ailment-specific counseling. However, it's essential to acknowledge that the extent to which these services are delivered can vary.

Several factors contribute to the variations in service provision. These factors include limitations such as insufficient staffing, inadequate capacity, and a shortage of necessary knowledge. Additionally, instances of managerial interference and low patient turnout for these services have also been identified as contributing factors.

Community pharmacists also provide a range of services related to the management of minor ailments. These services address common issues such as aches and pains, sore throats, coughs

and flu, stomach problems (diarrhea, constipation), insomnia, minor ear irritations, indigestion, heartburn, minor skin irritations, minor eye irritations, and oral health issues.

These services form a significant component of the care provided by community pharmacies. It's crucial to note that while these services are accessible, there are instances where they are either unavailable or provided infrequently. Patient demand plays a pivotal role in explaining this variability. Some community pharmacies may not frequently offer these services because they seldom encounter patients seeking treatment for these specific minor ailments.

Community pharmacists assume a vital role in delivering essential pharmacotherapeutic consultation services to their patients, encompassing various critical aspects of patient care. However, the survey results indicate that most pharmacists provide these services sporadically rather than consistently, highlighting the need for improvement. A major obstacle to more frequent service provision is a shortage of time. A majority of the respondents expressed that they lack sufficient time to adequately deliver these services, often due to patients rushing to obtain their medications. Inadequate staffing was also identified as a contributing factor. The under-provision of these services could potentially lead to less than optimal patient outcomes (Rania et al., 2021).

Notably, in one particular case, a community pharmacy emphasized its offering of post-surgical recovery services, illustrating the evolving and diversified roles of community pharmacists in addressing the healthcare needs of their communities. These services collectively underscore the significance of community pharmacists as accessible healthcare providers, making a substantial contribution to patient well-being and effective medication management.

Furthermore, underscoring the importance of preventive care and medication management, public health services play a pivotal role. These services enable the early detection of health issues and the promotion of preventive measures. Research has shown that preventive health services can save lives and improve health by identifying illnesses earlier, managing them more effectively, and addressing them before they progress into complex, debilitating conditions, commonly referred to as chronic diseases (Pagán and Pauly, 2016). Additionally, programs such as community health campaigns contribute to increasing public awareness about prevalent disease conditions and effective prevention or management strategies, as demonstrated in a study conducted by (Ross.T et al.,) indicating that community pharmacy involvement in cholesterol management significantly enhanced patient outcomes.

However, it's worth noting that concerns persist regarding the limited participation of community pharmacies in these programs. Nonetheless, it is heartening to observe a substantial increase in the number of community pharmacies offering public health services compared to findings from prior studies (Oparah et al., 2002) conducted on community pharmacies in Edo State, Nigeria.

**Limitations of the study**

There were certain limitations which may affect the conclusions of the study, The collected responses were not up to the total sample size this was due to time constraints. Adequate time should be taken to conduct a survey. The respondents selection was not randomized, all the pharmacist at the meeting were targeted. It may have an effect on the result

# CHAPTER FIVE

# CONCLUSION

This study identifies that counselling and health education services were the most frequently performed roles by community pharmacies, this was followed by treatment of minor ailment and pharmacotherapeutic consult. Public health services such as cholesterol testing and community health campaigns were the services that were offered the least.

## RECOMMENDATION

Given that a significant proportion of respondents are employees in community pharmacies, further research is needed to understand their specific roles and contributions to the pharmacy team. This understanding can help optimize their participation in healthcare service delivery.

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**Roles Of Community Pharmacy In Healthcare Delivery In Edo State**

Good day, My name is Eloghosa Morgan, a 600 level student of the Faculty of Pharmacy University of Benin. I would appreciate if you help me by filling this survey on the roles your community pharmacy offers in health care delivery.

## SECTION I: DEMOGRAPHICS

1. Age(years): (a) <21, (b) 21-25, (c ) 25-30, (d) >30
2. Sex: (a) Male , (b)Female
3. Experience in community pharmacy practice: (a) <1 year, (b) 1-3 years, (c) 4-6 years, (d) >7 years
4. Job: (a) Owner, (b) Employee
5. Status: (a) Part time, (b) Full Time
6. Pharmacy location:_____, LGA_____

## SECTION II: COMMUNITY PHARMACY WORKERS

7. **How many pharmacists are on duty at any single point in time at the pharmacy?**

   (a) 1, (b)2, (c)3, (d) >3 specify_____

8. **How many pharmacy technicians/assistants are on duty at any single point in time at the pharmacy**

   (a) 1, (b)2, (c)3, (d) >3 specify_____

## SECTION III: ACCESSING THE SERVICES THE COMMUNITY PHARMACY OFFERS

**9. Please fill in the Table below by ticking the appropriate response that indicates the extent to which the pharmacy offers the service.**
**Key: nil = 4; Once in a while= 3; Occasionally = 2; Often = 1;**
**Keyb : Lack of skill =1b , Lack of man power =2b, Lack of knowledge =3b, Lack of capacity =4b, other reason = 5b**

| | A | | | | B | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **SERVICE OFFERED** | **1** | **2** | **3** | **4** | If you ticked "1" or "2" on table A what is the reason (B)? | **1b** | **2b** | **3b** | **4b** | **5b** |
| **a. Medication delivery counselling and health education** | | | | | | | | | | |
| **i.** Handling and storage of medication | | | | | | | | | | |
| **ii.** Prescribed medication counselling | | | | | | | | | | |
| **iii.** Education on lifestyle modifications | | | | | | | | | | |
| **iv.** Over-the-Counter(OTC) medication counselling | | | | | | | | | | |
| **v.** Family Planning and Sexual Health | | | | | | | | | | |
| **vi.** Ailment-specific Counseling | | | | | | | | | | |
| **vii.** Management of Long-Term Health Conditions | | | | | | | | | | |
| **viii.** Others specify _____ | | | | | | | | | | |
| **b. Management of minor ailments** | | | | | | | | | | |
| **i.** Aches and pain | | | | | | | | | | |
| **ii.** Sore throat, cough and flu | | | | | | | | | | |
| **iii.** Stomach issues (diarrhoea, constipation) | | | | | | | | | | |
| **iv.** Insomnia and Sleeplessness | | | | | | | | | | |
| **v.** Minor Eye Irritations | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **vi.** Indigestion and Heartburn | | | | | | | | | | | |
| **vii.** Minor Skin Irritations | | | | | | | | | | | |
| **viii.** Minor Eye Irritations | | | | | | | | | | | |
| **ix.** Oral Health Issues | | | | | | | | | | | |
| Others specify _____ | | | | | | | | | | | |
| **c. Pharmaco-therapeutics consult** | | | | | | | | | | | |
| **i.** detection & management of adverse drug reactions | | | | | | | | | | | |
| **ii.** Assessment of drug interactions | | | | | | | | | | | |
| **iii.** Individualized drug therapy | | | | | | | | | | | |
| **iv.** Dosage optimization | | | | | | | | | | | |
| **v.** Others specify _____ | | | | | | | | | | | |
| **d. Public health** | | | | | | | | | | | |
| **vi.** Blood glucose test | | | | | | | | | | | |
| **vii.** Blood pressure tests | | | | | | | | | | | |
| **viii.** Birth control dispensing | | | | | | | | | | | |
| **ix.** Cholesterol testing | | | | | | | | | | | |
| **x.** Community Health Campaigns | | | | | | | | | | | |
| **xi.** Others specify _____ | | | | | | | | | | | |

**Any other comment you would like to share**

_____

Thank you for your time!