CONTINUING PROFESSIONAL EDUCATION EXPERIENCES AND NEEDS OF PHARMACISTS IN IBADAN AND ABEOKUTA, NIGERIA

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ABSTRACT

Professional organisations throughout the world encourage their members to participate in Continuing Education (CE) activities with a view to meeting the changing challenges and demands of their practice. In Nigeria, there is dearth of information about the forms of CE activities that pharmacists undertake. This study was therefore designed to assess the types of CE activities pharmacists participate in and the factors which influence their involvement in such activities.

The study was a cross-sectional survey of Hospital Pharmacists (HP) and Community Pharmacists (CP) in two cities. All the 142 community and hospital pharmacists in Ibadan and the 122 community and hospital pharmacists in Abeokuta identified using the state pharmacy registration records were invited to participate in the study. Two hundred (75.5%) of the 264 pharmacists participated in the study. A validated self-administered semi-structured questionnaire was used to assess respondents' history of involvement in CE as well as barriers and facilitating factors which influenced their participation in CE. Descriptive statistics and Chi-square statistics were used for data analysis.

Respondents' mean age was 41.8±13.2 years, and 62.5% of them were males. About half (51.5%) of the respondents were HP while 48.5% were CP. Eighty-one percent were involved in the Mandatory Continuous Professional Development (MCPD) within the five years preceding the survey. Majority (83.5%) undertook In-Service Training (IST) within the two years preceding the study. Educational materials read as part of self-directed learning initiatives in the six months preceding the study included drug reference manual (78.0%), general pharmacy textbooks (77.0%) and professional journals (61.0%). More pharmacists in Abeokuta (73.5%) than Ibadan (68.3%) engaged in the practice of self-study. Many pharmacists (44.5%) attended Monthly Professional Meetings (MPM) in the last three months preceding the survey. Respondents aged 30-39years (89.2%) attended more MCPD compared with those aged 40-49years (79.4%) and those aged above 50years (60.9%) ($p<0.05$). More males (67.2%) than females (50.6%) were involved in self-study activities ($p<0.05$). Forty-five percent of HP and 38.3% of CP attended MPM. Factors that influenced respondents' involvement in CE activities included need to update knowledge (80.0%), annual registration requirement (58.5%) and opportunities for professional networking (28.0%). More than half (55.0%) identified easy access to resources and support from employers (54.5%) as factors that

motivate pharmacists to participate in CE. Barriers to involvement in CE activities included lack of time (42.8%), funds (28.8%) and scarcity of CE opportunities (28.8%). Most pharmacists (95.0%) were willing to attend future CE programmes. The CE programmes desired by respondents were conferences (62.5%), postgraduate studies (61.0%), MCPD (54.0%) and IST (47.5%). The expressed CE needs included pharmaceutical care (54.0%) and pharmaceutical management practice (27.0%).

Participation in continuing education activities among the pharmacists was high in-spite of some resource constraints. Advocacy and motivational strategies are needed to maintain the practice among hospital and community pharmacists.

KEYWORDS: Continuing education, Community Pharmacists, Hospital Pharmacists.

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DEDICATION

This project is dedicated to the glory of Almighty Allah, Subhanahu wa Ta'ala (SWT) for giving me the good health to start and accomplish this goal.

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CERTIFICATION PAGE

I certify that this work was carried out by Hassan Sulaiman Adebanjo Oluwakemi in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan.

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ABBREVIATIONS

ACPE: Accreditation Council of Pharmacy Education

ACPN: Association of Community Pharmacists of Nigeria

AMREF: Africa Medical and Research Foundation

B.PHARM: Bachelor of Pharmacy Degree

CE: Continuing Education

CEU: Continuing Education Unit

CME: Continuing Medical Education

CPD: Continuing Professional Development

CPE: Continuing Professional Education

FIP: International Federation of Pharmacists

IST: In-service Training

LLL: Lifelong Learners

MCE: Mandatory Continuing Education

MCPD: Mandatory Continuing Professional Development

MPM: Monthly Professional Meetings

NAAP: National Association of Academic Pharmacists

NAHAP: National Association of Hospital and Administrative Pharmacists

NAIP: National Association of Industrial Pharmacists

NUC: National Universities Commission

PCN: Pharmacists Council of Nigeria

PHARM.D: Doctor of Pharmacy Degree

PHC: Primary Health Care

PSN: Pharmaceutical Society of Nigeria

RPSGB: Royal Pharmaceutical Society of Great Britain

SMAHEC: South-eastern Massachusetts Area Health Education Centre

WAPCP: West Africa Postgraduate College of Pharmacists

WHO: World Health Organisation

CHAPTER ONE

INTRODUCTION

Definition of Continuing Education

Continuing Education (CE) refers to any type of post-secondary education, used to either obtain additional certifications, or as credits required to maintain a license (Brookfield, 1987). CE is aimed exclusively for adults who already possess a college or university degree (Abdullahi and Besrat, 1999). CE includes formal and informal training. Workers may earn college degrees through formal programmes, concentrate on professional development courses aimed at personal enrichment in informal surroundings, or participate in programmes that include both formal and informal elements. Generally, CE refers to classes and seminars that focus on job-related skills and knowledge (Mandell and Elana, 1990).

The concept of maintaining and improving professional competence is not new, professional bodies throughout the world have for sometime stipulated that their members should engage in CE activities to ensure competence to continue to practice (Rouse, 2004). CE is also defined as adult education, usually in the form of short or part-time courses, continuing throughout a person's life (Akinpelu, 1991). This is the training obtained in addition to the educational requirements for entry into a profession. For the health care professionals, CE helps them to maintain relevance in the health field. It is the learning experiences that provide participants up-to-date information in a particular area of knowledge or skills that enhance their performance. It is a lifelong learning process which builds on and modifies previously acquired knowledge, skills and attitudes of the individual (Karayan, 2005). It is also the form of education aimed at maintaining professional credentials, skills, sometimes used synonymously with professional development (Davis, Thomson, Oxman and Haynes, 1995).

CE can take the form of workshops, seminars, home-study or online courses, conferences, in-service training or hands-on training (Evans, 1985). There is no specific format or length for a CE programme: some may take a weekend, while others can span weeks or even months (Houle, 1980).

To begin with, some of the items learned in basic training become irrelevant; they do not help the worker do his/her job. On the other hand, there are things the worker must know, but were never taught in school. Often these are procedures or solutions to practical problems that he/she faces in day-to-day work. At the same time the worker may have forgotten some of the still useful and relevant information acquired during basic training, especially if there has been no opportunity to review that information and discuss it with others. Meanwhile, the job for which one was trained may have changed because circumstances have changed and new techniques have been developed (Onuoha, 1991). It therefore becomes clear that basic training by itself is not enough, and if the health worker is to do his/her job effectively, the learning process must be lifelong (Wood, 1983).

This lifelong learning process has been termed "continuing education" (CE), and it is designed to prevent, cure, and rehabilitate workers from the disease of "continuing ignorance." This disease has been discussed in epidemiological terms by Wood (1983) who looked at the population at risk, the location of affected individuals and the time of onset. With regard to those who are at risk, it has been discovered that there is no natural immunity to the condition as all health staff ranging from ward maids to professors of medicine are prone to the condition. The distribution of the at-risk population is all over the country, but is most especially found among the health staffs who work in isolated health centres because they are visited fewer times, have fewer professional colleagues to interact with, have fewer materials to read and seldom have opportunities to attend meetings, seminars, and courses.

In determining when continuing ignorance begins to attack health workers, the African Medical and Research Foundation (AMREF, 1983), stated that medical know-how increases rapidly and reaches its peak at the time of qualification. When health workers start to work, they often begin to acquire additional practice skills at the same time that they start forgetting some of their theoretical knowledge. For a time the acquisition of skills may balance the forgetting of theory. This is the subclinical phase of continuing ignorance. As the time passes however, and forgetting accelerates, signs and symptoms of deficient work performance begin to appear, and the syndrome of continuing ignorance becomes apparent. At this point, the individual health worker needs doses, sometimes boosters of remedy, that is CE activities, the aim of which is to reduce the incidence of the condition to a point that is no longer a threat to public health.

Mandatory Continuing Education (MCE) is common in certain careers, including law, pharmacy and medicine. By law, physicians and pharmacists are required to keep up with modern developments, thus guaranteeing the best possible course of treatment for patients. Because of the highly competitive market, professionals who do not require CE often decide to undertake it anyway as a means of improving their resume and their chances for advancement (Queeney and English, 1994). Critics of CE programmes argue that obtaining credit is becoming easier and easier, which means many professionals are attending workshops but not necessarily absorbing new information from them (Rockhill, 1981).

With the recognition by the member States of the World Health Organization (WHO) at Alma-Ata in 1978 of the importance of Primary Health Care (PHC), many countries have embarked on a redefinition of the roles of existing health and health-related personnel, and the development of new types of personnel for the significant changes in skills and attitudes required for PHC (Kleczkowski, Elling and Smith, 1984).

These new developments brought about by PHC and changes in technology exemplify the need for lifelong learning as noted by Wood (1983), to combat the problem he termed "continuing ignorance" among health workers. He observed that job performance requires a mixture of knowledge, skills and attitudes, which in theory, health workers acquire during basic training, and then "qualify" and are expected to remember everything they learned for their whole professional lives. In practice things are quite different because some of the items learned in basic training become irrelevant; they do not help the worker to do his/her job.

The 2003 Moshi Regional Conference on 'ICTs and CME in East and Southern Africa' noted among other things that:… *"[health providers] need to continually apply skills and knowledge, which requires a process of continuous learning and improvement. Health workers, particularly those in rural or remote areas, will experience a decline in skills and knowledge, professional dissatisfaction, low morale, disillusion, lack of commitment, and reduced interest in their work…."*

The need for CE for improvement of work-related skills by people already in the workforce became increasingly vital throughout the 20th century partially as a result of technological advances, which led many industries to depend on high-tech equipment. During the 1990s, the number of CE programmes as well as the number of adult enrolled in such programmes rose rapidly (Kim, 1997), a response to demand for CE.

The need for continuous learning aimed at professional development has been underscored in a number of professional fields. In the medical field, continuous learning which is known as continuing medical education (CME) is vital because health problems keep changing as new diseases and risk factors emerge (Davis, 1999). As a result, some drugs lose efficacy; new ones are manufactured and medical technology equally changes to conform to new health problems. In the field of pharmacy, there is always the discovery of new drug molecule, changes in the drug regime, changes in the pattern of diseases and production of new drugs. These changes require pharmacists (a member of the health team) to be up-to-date in their information and knowledge in order to deliver effective services to their numerous clients.

This study is hinged on the Chinese proverb quoted by AMREF (1983):

"*He who knows not and knows not that he knows not is a fool; shun him. He who knows not and knows that he knows not is a child; teach him. He who knows and knows not that he knows is asleep; wake him. He who knows and knows that he knows is wise; learn from him*".

In any setting, one will find health workers in each of these categories. Hopefully those who are found to be wise about the opportunities of CE can be identified and encouraged to lead the way for awakening those who are asleep to their potentials, to teach those who have not yet learned, and to control the effects of continuing ignorance displayed by those who are not aware of their ignorance.

Statement of the Problem

According to Davies et al (1995), a revolution in health care is occurring as a result of changes in the practice of medicine and in society. These include changing demographics and the pattern of disease; new technologies; changes in health care delivery; increasing consumerism; patient empowerment and autonomy; an emphasis on effectiveness and efficiency; and changing professional roles. These are the challenges which will face the health workers in the 21st century and to which CME must respond. Healthcare professionals including pharmacists have always been encouraged to update their knowledge and maintain clinical competence. The rapid changes currently taking place within healthcare systems have increased the pressure from direct care providers, professional bodies and the general public for health workers to engage in CE programmes.

To overcome these challenges, health care professionals, including pharmacists, must engage in CE to remain relevant in their practice. Despite these significant needs for CE by pharmacists, there have been limited studies regarding the attitudes, perceptions, and understanding of pharmacists in Nigeria about CE.

The traditional role of pharmacists to manufacture and supply of medicines has undergone a major change in the last decade. More recently, pharmacists have been faced with increasing health demands due to an ever-growing and complex range of medicines, poor adherence to prescribed medicines that have forced the evolution of the pharmacist's role into a more patient centred approach (Hudson, Anaw and Johnson, 2008). A clinical role for pharmacists has developed in response to the societal need to improve the use of medicines. Clinical role development has been led by initiatives in the hospital sector which has enabled schools of pharmacy to make shifts in the pre-graduate education of pharmacists (Miller, 1981). Worldwide there is a change of focus in the pharmacy profession from "drug-orientation" to "patient-orientation" leading to the change of teaching curriculum. This has given rise to a six-year pharmacy programme resulting in the award of Doctor of Pharmacy degree (Pharm D) as against the traditional five-year programme of Bachelor of Pharmacy degree (B. Pharm). However, in Nigeria, this change has not been embraced since only one university (University of Benin) till date is awarding Pharm D degree (PCN, 2008).

It was in line with these developments that Pharmacists Council of Nigeria (PCN), the regulatory agency for the practice of pharmacy in Nigeria, in 1998 instituted a guideline for Mandatory Continuing Professional Development (MCPD) to be taken by pharmacists. The MCPD is in modules which pharmacists are expected to participate on regular basis. According to the PCN, the need for MCPD arose from the changes in the health field and the desire to keep pharmacists abreast of new development in order to enhance their practice. Attendance of MCPD serves as pre-requisite for the yearly registration to practice as a pharmacist in Nigeria. This MCPD is designed for all pharmacists irrespective of the area of practice. Apart from this compulsory MCPD, pharmacists in Nigeria are expected to attend other CE programmes for knowledge advancement. There is however dearth of information or published materials apart from the ones from PCN on whether pharmacists attend these CE programmes or not.

From the above scenario, it is obvious that pharmacists are expected to attend CE programmes at different times in their professional life. However, the problem is that there is little systematic investigation and publication of the extent to which pharmacists

in Nigeria undergo CE, the opportunities and challenges surrounding their participation in CE and effects of such CE in their practice. Hence there is the need for the assessment and documentation of the CE experiences of pharmacists in Nigeria.

The researcher is not aware of any published reports on the CE experiences of pharmacists in Nigeria. The study was therefore carried out to document the current situation regarding CE opportunities and experiences of pharmacists in the two states of Nigeria namely Oyo and Ogun.

Justification of the study

This study is significant for four reasons.

First, the need for up-to-date information on the current development in any profession by those practising it cannot be over-emphasised. Also there are different types of CE that pharmacists can be involved which include the following: in-service training, staff meetings within health facilities, meetings with professional colleagues (e.g. at conferences, seminars, professional meetings), self-study, learning through the media, postgraduate studies e.t.c. This research will provide information on the types of CE engaged by pharmacists and their reasons for such.

Secondly, professional isolation has been identified as the major risk factor for the development of 'continuing ignorance' i.e. the gradual loss of knowledge and/or skill by workers who have not engaged themselves in refresher programmes to keep form with trends in their profession (AMREF, 1983). This study seeks to document the time interval at which pharmacists attend refresher courses.

Thirdly, though it is not necessary for one to attend school for life, individuals who stop learning soon become stagnant, hence the purpose of adult learning is to survive today's work world by pursuing the ever changing quest to up-date professional knowledge (Tobin, Yoderwise and Hull, 1979). This goal is achieved not only through the efforts of health policy makers and administrators, but also through the motivation and action of the individual pharmacist to improve him or herself. Thus it is equally necessary to learn whether pharmacists attempt to keep themselves current and whether they are interested in CE.

Fourthly, there is no human activity without its challenges and it has also been observed by Takumi, Katsuya and Hiroaki (2004) that there are barriers and challenges to pharmacists participating in CE; the study will provide information on the challenges facing the CE programmes of pharmacists.

The study provides a baseline upon which health policy makers, health personnel trainers, regulatory bodies, professional bodies and international agencies can establish their future plans for effective implementation of CE programme for pharmacists as well as design appropriate intervention programme towards professional development of pharmacists.

Objectives of the study

The broad objective of the study was to determine the CE experiences and interests of pharmacists in Ibadan and Abeokuta. The specific objectives were to;

1) describe the frequency of attendance of CE activities by pharmacists.
2) identify the factors that motivate or hinder participation of pharmacists in CE.
3) identify socio-demographic factors that influence involvement in CE programmes.
4) describe the CE activities carried out by pharmacists after graduation
5) recommend as appropriate based on the findings.

Research questions

1) What is the frequency of pharmacists' attendance of CE?
2) What are the factors that influence their participation in CE programmes?
3) What are the effects of socio-demographic characteristics on CE of pharmacists?
4) Which CE activities do pharmacists participate in after graduation?

Study hypotheses

1) There is no significant association between sex of pharmacists and undertaking of CE activities.
2) There is no significant association between age of pharmacists and involvement in CE activities.
3) There is no significant association between years of practice and participation in CE activities.
4) There is no significant association between sector of practice and participation in CE activities.
5) There is no significant association between location of practice and participation in CE activities.

CHAPTER TWO

REVIEW OF LITERATURE

The concept of CE is explored at the beginning of this chapter. The roles of CE in pharmacists' performance of duties to clients as well as a motivation are reviewed. The many forms, types and methods CE might take are described.

The concept of CE

The tremendous speed at which scientific, technological and other kind of changes are taking place in all sphere of life, make it essential for everyone to constantly learn, unlearn and relearn new skills, ideas and so on.

In recent years, CE has become a term with which most educators are familiar with and its practice has become known by a number of terms, such as: refresher courses, in-service training, and paid educational leave. Yet the term does require a broad conceptual framework. According to Brookfield (1986), CE is 'post initial education' since this appears to be the way that it is currently being employed. While it is being employed in this way it must also be recognised that the term is used with a more restrictive connotation, that is, as continuing professional education as opposed to liberal adult education. In this more restricted sense it refers to all forms of education and training that are offered to practising professionals after their initial preparation for their chosen sphere of work. It is perhaps this latter use that has assumed greater popularity in recent times although it is necessary to recognise that both usages refer to a post-initial educational phase.

While the term 'continuing education' has only recently come to the fore, the ideas underlying it (and, indeed, the term itself) are somewhat older, reflecting the nature of social change itself, which is evolutionary rather than revolutionary (Akinpelu, 1991). Consequently, knowledge has evolved and in the process of that evolution it has differentiated into a multitude of different branches. But, as Scheler pointed out as early as 1923, different branches of knowledge evolve and change at different speeds. Hence, religious knowledge is slow to change and adapt, so that it sometimes appears to be out of line with contemporary thought. By contrast, technological knowledge changes with

considerable rapidity. Indeed, Scheler (1923) regarded this form of knowledge as artificial, since it does not have time to become embedded in the culture of a nation before it has changed. He typified it as changing 'from hour to hour'. Hence, in a technological society, its infra-structural knowledge is 'artificial' and changing with great rapidity.

CE has become a global concept that embraces a diversity of educational programmes and experiences geared to the adult who has broken bounds with full time or formal education (Agunloye, 1990). CE involves a change in orientation into educational practice from learning that is tied to certain ages (i.e., children and youth) and places (i.e., schools) to an evolutionary approach to learning that occurs over time in a variety of settings (Akinpelu, 1991). Thus CE is seen as a lifelong process (AMREF, 1983; Linton and Truelove, 1980).

There is need to narrow the meaning of CE, because as Akinpelu (1991) has observed, CE is an amorphous phenomenon, which if taken in its ordinary sense, can be said to be as wide as any educational effort beyond and after initial schooling. If care is not taken in defining the concept, one might even say that secondary school education is a form of CE that follows initial primary schooling.

Several attempts at defining CE have been made, which reflect the inter-disciplinary application of CE. Thompson (1974), an educator, described CE as a process through which older and less qualified staffs undergo updating that enables them to cope better with current duties and even take on new responsibilities. Another perspective from the field of business views CE as encompassing all systematically organized and planned efforts that are designed to improve the abilities of employees (Tobin et al, 1979)

A labour viewpoint described CE as “workers’ education” that enables the worker to participate actively in the labour movement, to improve personal and group competence, and to advance his social, economic, and cultural interests (Anyanwu, 1960).

CE as defined by AMREF (1983) is “that part of education that begins where basic education ends”. Good basic training lays the foundation for further learning by providing the fundamental knowledge that the health worker needs to start his job. CE then builds on this foundation to improve the health worker’s competence and enables him to adapt to changing health needs in the community and changing practices in the health care profession (Wood, 1983).

The interaction between basic training and CE was demonstrated by Thompson (1974). Every improvement made in basic professional training curricula and methods

renders unqualified those professionals already in service. Therefore even the best professional will need to retool, not once or twice, but constantly throughout his period of service. Throughout their careers, true professionals are always learning and sharpening their skills. Knowledge and ability not possessed by the general public, acquired through training, experience and education is, generally, what defines a particular field as a profession. Personal commitment to continuous improvement is the hallmark of professional practice (Karayan, 2005).

Toffler (1970) who asserts that, "while it is not necessary for one to attend school for life, we find individuals who stop learning soon become stagnant". The purpose of adult learning is to improve one's competency in life. Toffler (1970) sees adult learners as "running to stay behind", in an effort to update his knowledge because the object of his quest is in a constant state of change. Lifelong learning is absolutely essential for continued maintenance of competency because, "*we do not live in the same world into which we were born, and we will not die in the world in which we worked*" (Mead, 1958). While there is a consensus that pre-service and in-service training should form a continuum, the mechanism for achieving this are not often in place (Thompson, 1974).

Knowledge and techniques in the health field are rapidly expanding. According to Lindsay, Morrison and Kelley, (1974), it is estimated that the half-life of knowledge acquired in medical school is approximately five years. Therefore, in just five years, half of what a doctor learns in medical school will be obsolete. With such a vast increase in the knowledge base, it is essential that health professionals, particularly doctors, pharmacists and nurses, constantly update their skills. In fact, their patients' lives and well-being often depend on health professionals keeping current on the latest advances.

Pharmacists, like all health care professionals, must constantly upgrade their knowledge and skills to ensure competency for practice. The continuous professional development (CPD) of pharmacists is an essential issue for educators, regulators, employers and professional associations. Keeping knowledge and skills up to date and addressing new concepts in the delivery of pharmaceutical services have been major challenges for pharmacists (Hancox, 2002). Over the past forty years, pharmacists have responded to these challenges with CE, with some degree of success. The European Universities Continuing Network defines CE as "any form of education, vocational or general, resumed after an interval following the continuous initial education".

Lifelong learning has been embraced as a core principle for professional practice in pharmacy throughout the world. The International Federation of Pharmacists (FIP)

"Seven Star Pharmacist" model includes the notion of CPD. In North America, most regulatory and professional associations require maintenance of competency, in part through lifelong learning.

Currently, resources for pharmacists engaging in CPD activities are available from a wide variety of sources (Archer, 1999). Academic institutions, regulatory bodies, professional advocacy groups, and the pharmaceutical industry all play a critical role in developing and delivering high-quality educational programming to meet the needs of pharmacists. Increasingly, there is a wide variety of such programming available, ranging from traditional didactic lectures, to interactive workshops, simulated patient activities, and electronic media offerings. Each of these different instructional methods is meant to build knowledge and skills for the purpose of enhancing the quality of pharmacy practice.

With a wide variety of providers and educational methods, there is a need to ensure co-ordination, co-operation, and collaboration for sharing the best practices among educators. The International Conference on Life Long Learning in Pharmacy provides an important and unique international forum for the exchange of ideas and experiences in the field of CPD (Hancox, 2002). Recognizing the need for communication and partnerships between pharmacy educators, the International Conference on Life Long Learning in Pharmacy held its inaugural meeting in Denmark in 1990. Drawing pharmacy educators and practitioners from around the world, this meeting provided a unique opportunity for individuals and organizations to share best practices and discuss and debate important issues related to pharmacists' CPD. This meeting concluded with an affirmation of the value of lifelong learning in pharmacy, a recognition of the need for continue collaboration, and an interest in further exploring the international dimensions of pharmacy practice and education.

Since 1990 the Conference has been held on a periodic basis throughout the world: in the USA in 1994, Denmark in 1998, Northern Ireland in 2000, and South Africa in 2002. A momentum is growing world-wide that recognizes the integral role of CPD in pharmacy practice, and the value of sharing experiences and knowledge in an international, collegial forum.

Professions, as occupational groups, are notoriously hard to define or even to delineate with any degree of accord among scholars - but whatever list is constructed and whatever definition is assumed, there might be more agreement with the assertion that they, at least, are occupations whose practice is based upon an area of knowledge. But that knowledge is not static and most professions utilise those branches of knowledge that

are changing most rapidly. Hence, it is almost impossible now for a new recruit entering one of these professions not to expect to have to learn new knowledge, after his initial preparation, and for this to continue throughout his career. Indeed, the more the practice of his profession is based directly upon that new knowledge, the more essential it is for the professional to learn it.

Continuing Medical Education (CME) is not a new concept. From essentially the beginning of institutionalized medical instruction (medical instruction affiliated with medical colleges and teaching hospitals), health practitioners continued their learning by meeting with their peers. Grand rounds, case discussions, and meetings to discuss published medical papers constituted the continuing learning experience (Singh and Rice, 1986). In the 1950's through to the 1980's, CME was increasingly funded by the pharmaceutical industry. Concerns regarding informational bias (both intentional and unintentional) led to increasing scrutiny of the CME funding sources. This led to the establishment of certifying agencies such as the Society for Academic Continuing Medical Education which is an umbrella organization representing medical associations and bodies of academic medicine from the United States, Canada, Great Britain and Europe.

CME or CPD is generally understood to be crucial for the development and improvement in quality of healthcare delivery services (Abbatt and Majia, 1988). It is for this reason that international agencies, including the WHO facilitated, among other initiatives, the provision and enhanced access to, mostly electronic, biomedical journals to developing countries. In only a few African countries do regulatory or licensing boards of professional healthcare workers require production of evidence that one had attained enough credits in an approved CPD programme or CME to re-certify practitioners. In most African countries however, CME is quite peripherally located in medical practice and there is no requirement for external verification and no professional or statutory demand for accreditation of qualifications or competencies (Driesen, Leemans, Baert and Laekeman, 2004).

The concept of maintaining and improving clinical competence is not new. Professional bodies throughout the world have for sometime stipulated that their members should engage in CE activities to ensure fitness to continue to practice (Rouse, 2004). The Royal Pharmaceutical Society of Great Britain (the UK professional and regulatory body) refers to CE as “the traditional methods of learning such as attending workshops, following diploma or distance learning courses, or structured reading.” However, it has

become increasingly recognized that CE does not necessarily equate to learning, and gaps in knowledge and skills may well exist. It is through these shortcomings of CE that CPD is increasingly being adopted by the profession world-wide as being the one way to ensure professional competence (RPSGB, 2005).

According to Aiga and Banta (2003), CPD has been recognized as an effective tool for equipping health professionals with updated knowledge and skills for improving health services quality. However, there is globally increasing scepticism concerning the effectiveness of CPD (Alexander, 2002). In developed countries, the major reasons for participation in CPD include compliance with employers' requirements and renewal of specialist qualifications and licences. In developing countries, CPD, frequently supported by development agencies, often provides subsistence support to participants and is possibly perceived as an extra income opportunity or tool for promotion among health professionals. The knowledge and skills learned are insufficiently applied in daily practice (Onuoha, 1991).

The CPD approach has started to find acceptance in pharmacy. The FIP has adopted the CPD concept in 2002 as the "responsibility of individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure competence as a professional, throughout their careers." While some countries have already fully implemented this concept into their lifelong learning policies, others are still operating a formal CE system, and still others have no official lifelong learning structure at all. Currently, Belgium is in this "no official structure" situation, with pharmacists only having an ethical obligation to regularly take part in CE activities. However, given the importance of lifelong learning in today's society, the increasing number of countries that are developing mandatory systems, and the pressure from the health care system to demonstrate quality of care, Belgian professional associations have started the debate on the implementation of a regulated system, before possibly an externally driven system is enacted (American Pharmacists Association, 2004).

In so many countries and states, there are minimum yearly requirements of CE activities that pharmacists must have participated in during the preceding year for them to qualify for re-licensing. Such states include:

ALABAMA

By January 1 of each year, every pharmacist must have completed not less than fifteen (15) hours of approved CPE during the preceding year, three (3) hours of which

must be live exposure. Carryover of no more than an excess of twelve (12) hours credit is allowed.

ALASKA

Each pharmacist seeking renewal of a license shall satisfactorily complete thirty (30) credit hours of CPE biennially offered by ACPE-approved providers during the previous licensure period. Only programmes administered by ACPE-approved providers will be accepted by the Board of Pharmacy.

ARIZONA

Pharmacists must satisfactorily complete three (3) CEUs biennially of CPE activities sponsored by ACPE- or Board-approved providers. At least 0.3 CEUs shall be pharmacy law subjects. Satisfactory proof of participation should be retained by participants for five (5) years. No carryover of credit is allowed.

MINNESOTA

Requires at least thirty (30) hours of credit from accredited CPE programmes every two (2) years. Carry over and splitting of programme hours is not allowed.

MISSISSIPPI

Pharmacists are required to submit to the Board of Pharmacy evidence of completion of ten (10) hours (1 CEU) in approved programmes every one (1) year. No carryover of credit is allowed.

A more recent (2003) definition follows: CE for the profession of pharmacy is a structured process of education designed or intended to support the continuous development of pharmacists to maintain and enhance their professional competence. CE should promote problem- solving and critical thinking and be applicable to the practice of pharmacy (ACPE, 2003).

In general, for guidance in organizing and developing CE activity content, providers should ensure that, as for all health care professionals, pharmacists should develop and maintain proficiency in five core areas such as (a) delivering patient-centred care, b) working as part of interdisciplinary teams, c) practicing evidence-based medicine, d) focusing on quality improvement and e) using information technology.

CE is an all encompassing term within a broad spectrum of post-secondary learning activities and programmes. Recognized forms of post-secondary learning activities within the domain include; degree credit courses by non-traditional students, non-degree career training, workforce training, formal personal enrichment courses (both on-campus and online) self-directed learning (such as through Internet interest groups, clubs or personal research activities) and experiential learning as applied to problem solving.

In sum, since the beginning of time there has always been something new to learn. Although there are preparatory programmes of differing quality and type, none ensures that practitioners will maintain competency throughout their careers (Onuoha, 1991). CE is therefore a way for combating obsolescence (Tobin et al 1979).

Roles of pharmacists in health care delivery

Pharmacy is the health profession that links the health sciences with the chemical sciences, and it is charged with ensuring the safe and effective use of medication. The scope of pharmacy practice includes more traditional roles such as compounding and dispensing medications. It also includes more modern roles related to patient care, including clinical services, reviewing medications for safety and efficacy, and providing drug information (RPSGB, 2005). Pharmacists, therefore, are the experts on drug therapy and are the primary health professionals who optimise medication use to provide patients with positive health outcomes. The pharmacist is now a vital collaborator in the entire healthcare process (Quinn et al, 1997)

Pharmacists are highly-trained and skilled healthcare professionals who perform various roles to ensure optimal health outcomes for their patients. Many pharmacists are also small-business owners, owning the pharmacy in which they practice.

As newer and more complicated drugs enter the marketplace, pharmacists are the ones who fill patient prescriptions for these drugs and explain how to use them. Consumers today are more educated about health products and have more questions about the treatments physicians prescribe for them. As a result, it falls upon the neighbourhood pharmacist to provide more personal attention to the needs of the medical consumers (Quinn et al, 1997).

In institutional settings, pharmacists are an integral part of the total healthcare team. No longer do they occupy the basement office, filling prescriptions and answering the occasional questions from the physician (Cordina, Safta, Clobanu and Sautenkova

2008). The expertise of the pharmacist is needed to advise physicians and establish policies as drug therapies get more and more complicated.

As the profession becomes more complicated, the education of pharmacists has followed suit. Pharmacy training more closely resembles medical training, which can include additional years of study as well as residencies and fellowships in a variety of specialties (Menabde and Stobbeler, 1998). Students who want a career that provides substantial earnings and is virtually recession-proof should consider the pharmacy industry. With a growing elderly population and tremendous advances being made in the development of pharmaceuticals, it is a profession that will only grow in importance and opportunity in the coming decades (Tiron, Arion, Palu, Scainii and Satan, 2003)

Students who wish to enjoy this growing industry without spending years in school, or who wish to get their foot in the door of the workplace before they enrol, may choose to start out as pharmacy technicians. These professionals assist the pharmacist in labelling and filling prescriptions, providing customer service and performing administrative duties. Pharmacy technician training is faster and less demanding than pharmacy school, and opens the door for a pharmacy degree later on, if the student so desires.

Studies have shown that consumers interact with pharmacists at an average of 12 to 15 times each year (Derek, Abdul, Ailsa and Kathleen, 2006). They might see doctors only three or four times a year. Because of the frequency of visits, a pharmacist is often in a better position to monitor the progress of patients and their responses to medications. It may also be a reason that pharmacists are continually ranked in polls as the most trustworthy of professionals.

The most common association with pharmacists is as a dispenser of drugs and medications. However, a pharmacist's work neither begins nor ends with filling prescriptions. The mixing of the ingredients to create the prescriptions (a practice called compounding) is really a small part of a pharmacist's responsibilities (Cordina et al, 2008). Pharmacists often work with physicians and other medical professionals to provide information about drug dosages, side effects, and interactions with other medications.

Decisions made by pharmacists can sometimes mean the difference between life and death for a patient. If a pharmacist is not familiar with the composition of drugs and their clinical effects, or if he does not have enough familiarity with a patient, the patient can suffer serious reactions as a consequence. Pharmacists must not only know and

understand this information, but must always counsel their patients as to the effects and possible consequences of the medications (Hammerlein, Griese and Schulz, 2007).

Pharmacists provide similar advice to physicians and other healthcare professionals. As experts on the effects of medications, they can assist doctors in providing proper prescriptions for their patients. They can also advise physicians about the possible side effects of a particular type of medication or its potential for interaction with other medications.

The traditional role of pharmacists to manufacture and supply of medicines has undergone a major change in the last decade. More recently, pharmacists have been faced with increasing health demands due to an ever-growing and complex range of medicines, poor adherence to prescribed medicines that have forced the evolution of the pharmacist's role into a more patient centred approach (Hudson et al, 2008). In addition, the pharmacist assumes varied functions ranging from the procurement and supply of medicines to pharmaceutical care services thereby dispensing with knowledge and improving outcomes resulting in best treatment for patients (Hudson et al, 2008).

A clinical role for pharmacists has developed in response to the societal need to improve the use of medicines. Clinical role development has been led by initiatives in the hospital sector which has enabled schools of pharmacy to make shifts in the pre-graduate education of pharmacists (Miller, 1981). The increasing complexity in the management of drug therapy has given pharmacists clear roles that integrate within the health care team.

The history is one in which the development of changing roles of pharmacists is an example of progress in healthcare delivery creating the need for revision of the curriculum for a whole profession (Quinn, Bates and Cox, 1997). Milestones in the changing roles and in the preparation of pharmacists for those roles have been; establishment of clinical pharmacy in US hospitals and the doctorate (Pharm.D) as the professional entry qualification; postgraduate clinical pharmacy education in UK and elsewhere, notably Asia and Australia; hospital pharmacists specialization across the wide range of medical specialties; the clinical teaching of pharmacists; the concept of ‘pharmaceutical care’ as a factor in public health; changes in schools of pharmacy and a shift to patient-centred research and teaching (Koleba, Martin and Jewesson, 2006).

Pharmacy has made enormous progress globally over the years and emerged as a distinctly independent profession with a wide range of activities related to drug discovery and development, manufacturing and supply of quality drugs through hospital, community and government pharmacy settings. The primary focus of the profession of

pharmacy world over has shifted from a product oriented to patient oriented professional service. The pharmacist is no longer a mere dispenser of drugs but has assumed a more crucial role in medicine management and as overall health care provider. Pharmaceutical education and training plays vital role in developing pharmacists with knowledge and skills needed to perform their duties and responsibilities more efficiently and professionally. Pharmacists as health care professionals work in both public and private settings i.e. government hospitals/clinics/ministries/parastatals/agencies and community pharmacies and pharmaceutical industries. For the above stated reasons and more, pharmacists are expected to keep abreast of current information and development in their practice.

Pharmacy practice in Nigeria

The profession and practice of pharmacy did not start in Nigeria as a well defined health care of specialisation as it is today. Rather, pharmaceutical training was borne from the necessity to provide assistance to expatriate medical officers. During the colonial period, those trained to handle drugs were called "dispensers". Such dispensers functioned as dispensers of medicines, sanitary officers, medical aids and anaesthetists in operating theatres (Adenika, 1998). At that time, the development and hence the role of the pharmacy professional followed the pattern in other British colonies and was in line with the developments in Britain. The need to import drugs on a large scale, which led to early development of the wholesale drug trade, resulted in additional role for the pharmacists (Erah, 2003). Since 1960, many developments have taken place in the education, legislations, and practice of pharmacy in various areas including industries, hospitals and communities.

Pharmacy is a branch of health sciences that deals with the production/manufacture, distribution and dispensing of drugs/medicines. It also involves the training of the professionals that are responsible for the aforementioned activities. These so trained professionals are called pharmacists. They are usually trained in any accredited pharmacy school. In Nigeria, presently there are thirteen accredited pharmacy schools scattered throughout the country (Nigerian Vanguard, 2011). A person seeking to be a pharmacist will be required to gain admission into the pharmacy school (having satisfied the necessary admission requirements) for a five year course. Afterwards, he/she will undergo one year internship training under a registered pharmacist. It is after

completing this phase that he/she will be registered by the PCN to practice as a pharmacist in Nigeria.

Also PCN in conjunction with other stakeholders has proposed a change in the teaching curriculum of pharmacy in Nigeria from the current five-year B.Pharm programme to a six-year Pharm.D programme in order to be in tune with the current training worldwide. This led to the approval by the NUC in 1998 for the introduction of the six year Pharm.D programme in the pharmacy schools in Nigeria. University of Benin changed to the new Pharm.D programme in year 2002 (PCN, 2010).

Pharmacists in Nigeria like their colleagues all over the world are expected to always update their knowledge by engaging in CE activities. In order to aid the CE activities of pharmacists in Nigeria, PCN has designed MCPD for pharmacists to participate in. PCN is the regulatory body empowered by decree 92 of 1992 to regulate and control the training and practice of pharmacy in all ramifications in Nigeria. To remain registered with the PCN, individual pharmacist is required to pay a certain fees for annual registration every year and to participate in MCPD. This regulatory body in conjunction with other recognised and relevant institutions do design from time to time courses for pharmacist to upgrade their education.

The Pharmaceutical Society of Nigeria (PSN) is the professional body of Pharmacists in Nigeria. PSN has different technical arms that reflect the field in which the individual pharmacist practice viz; Association of Community Pharmacists of Nigeria (ACPN), National Association of Industrial Pharmacists (NAIP), National Association of Hospital and Administrative Pharmacists (NAHAP) and National Association of Academic Pharmacists (NAAP).

Community pharmacists are the mirror of pharmacy practice as well as the health care delivery system because they serve in most instances as the first point of contact of the community members with the orthodox medical services while the hospital pharmacists serve as the gate of service provider in the government hospitals/clinics since they are usually the last port of call in the hospital. In many countries, community pharmacists can be consulted without appointment in a large number of convenient locations. The community usually depend on them for information and advice on the appropriate use of drugs and for the treatment of common medical ailment. They are in an ideal position to give advice to patients at the onset of any form of disease and also reinforce advice given by other healthcare professionals.

The need for a MCPD programme in the re-certification of all health professionals in Nigeria was recognized at the maiden National Health Summit in 1995. This recognition was followed by the directive of the honourable Minister of Health in 1996 to the Professional Regulatory Bodies for Health to discuss modalities for the early take-off of a programme for implementing the directive (PCN, 2009).

PCN in line with the government's directive, commenced the first and second cycles of the MCPD Programme (formerly called the Mandatory Continuing Professional Education, MCPE), for the re-certification of pharmacists in April 1998 and September 2005 respectively, and rounded off the initiative in 2003 and 2007 respectively. The third cycle commenced in January 2008 (PCN, 2009).

The programme is designed to update the knowledge of pharmacists by equipping them with current and relevant information to keep abreast of developments in the pharmaceutical care and modern trends in Pharmacy. As the name of the programme suggests, all registered pharmacists in Nigeria must undergo all aspects of the programme, to the complete satisfaction of the PCN.

In Nigeria, the PCN is the only body concerned with CE/CPE unlike what obtains in England, Wale and Scotland where presently major providers of structured pharmacy continuing education include the Centres for Pharmacy Postgraduate Education, the National Pharmaceutical Association and other pharmacy organizations such as the College of Pharmacy Practice, the UK Clinical Pharmacy Association and the Guild of healthcare Pharmacists (Hancox, 2001).

CE as a staff development process

Staff development is a process of improving the quality of an organization's human resources and is based on the fact that manpower is an organization's prime resource for achieving organizational goals (Stein, 1971). Staff development, also known as manpower development, embraces all institutionalized and personal efforts or facilities available to workers to enhance their job capacity through improvement of competence, skills, awareness, attitudes and aptitudes (Anyanwu, 1960). The goal of staff development is change in individuals' knowledge, understanding, behaviours, skills - and in values and beliefs as it relates to his work (WHO, 1985). Usually an organization facilitates the employees' learning through training so that their modified behaviour contributes to the attainment of the organization's goals and objectives (Dahama, 1979)

Tobin et al (1979) described staff development as “both formal and informal learning activities that relate to the employer’s role expectations that take place either within or outside the agency,” and include any effort to improve an employee’s knowledge, skills and attitudes. The American Nurses association (Stein, 1971) indicates that staff development has three components parts; 1) orientation, 2) in-service education and 3) continuing education. Tobin et al (1979) also give staff development four components parts; 1) peer review 2) practice audit, 3) re-examination and 4) continuing education.

The descriptions and definitions above reinforce the inclusion of CE as a major component of staff development (Oyesola, 1989; Anyanwu, 1960). The role of CE in staff development meets the seemingly conflicting needs of employees to maximize the value of their labour and of employers to maximize productivity (Oyesola, 1989; Koontz, O’Donnell and Wechrich, 1980). CE enhances worker’s earning power through better career opportunities, and strengthens the agency by producing more understanding and loyal employees (Onuoha, 1991).

The objectives of Continuing Professional Education (CPE)

For Jarvis (1983), "the aims of the educational process are about the learners rather than about the profession or wide society" and the "aims of CPE may relate intrinsically to the needs of the profession or to those of the wide society." However, as Singh and Rice (1986) pointed out CPE philosophy and practice should be learner centred, and accomplished in a climate wherein the professional begins to realize the value of CPE and engages in this type of professional development voluntarily.

Houle (1980) identifies several objectives of CPE, including clarifying the professions' functions, mastery of theoretical knowledge, self-enhancement, formal training, credentialing, and creation of a subculture, legal reinforcement, public acceptance, ethical practice, penalties, and relations to users of services. He believes that the ultimate aim of CE is to prepare practitioners not only "to use the best ideas and techniques of the moment but also to expect that they will be modified or replaced. He also believes that: 1) the primary responsibility for learning should rest with the individual; 2) the goals of CPE should be concerned with the entire process of professionalization, 3) CPE should be considered part of a process which continues throughout life, 4) the patterns and methods of CPE should be planned and conducted in terms of one of three modes of education: inquiry, instruction, performance, 5) the

provision of CPE should be expanded to pervade all aspects of professional life, 6) professions should collaborate in planning and providing CPE, 7) the process of recredentialing should be thoroughly rethought to determine the appropriate role of CPE.

The objectives of the MCPD programme in Nigeria according to PCN are as follows:

i. Update the knowledge of pharmacists by equipping them to keep abreast of developments in the pharmaceutical care and modern trends in Pharmacy.
ii. Provide an opportunity to supplement the initial training of pharmacists by expanding their knowledge and skills to meet the needs of the consumers of their services.
iii. Improve the skills and knowledge of pharmacists to ensure their continued relevance in the Health Management Team.
iv. Provide a forum for cross-fertilization of ideas and experience which would enhance the competence and commitment of pharmacists and, in turn, help to improve the quality of pharmaceutical products and services.
v. Serve as an important element of necessary change by preparing pharmacists to learn to adapt, contribute and participate actively in the implementation of change; and
vi. Ensure that the Nigerian pharmacist is always competent to offer the services for which he is licensed, in line with the provisions of Sections 14 (1) and (6) of the Pharmacists Council of Nigeria Decree 91 of 1992 (PCN, 2009)

CE versus CPD

Maintaining competence throughout their career is a lifelong challenge for all health care professionals. Being aware of the fast evolution of knowledge and the responsibility that health care professionals have should raise concerns about all required competencies. This moral sense, however, has not always sufficiently motivated health care professionals to continuously pursue new knowledge (Davis, 1999). Consequently, professional associations and authorities alike started developing formal lifelong learning systems with the aim of sustaining the practitioner's competence and ensuring the provision of quality patient care (Hancox, 2002). Traditionally, these systems were based on CE. However, in the last few years, there has been a shift towards CPD. CPD is a process usually conceived as a circle connecting the stages of reflection, planning, action, and evaluation (Rouse, 2004). In this process the individual practitioner determines his own learning needs, makes plans to meet those needs, executes those plans, and finally

evaluates whether the actions were successful. These steps are usually recorded in a CPD portfolio. In comparison, CE can be seen as one part of the CPD process, encompassing such traditional teaching methods as lectures, workshops, and distance learning courses. Whereas CPD is focused on the individual practitioner, CE is structured to address the learning needs of the majority of practitioners. One of the reasons for the shift towards CPD is the limited effect of formal CE activities on the behaviour of the practitioner.

Within the domain of CE, professional continuing education is a specific learning activity generally characterized by the issuance of a certificate or continuing education unit (CEU) for the purpose of documenting attendance at a designated seminar or course of instruction (IACET, 2008). Licensing bodies in a number of fields impose CE requirements on members who hold licenses to practice within a particular profession (McPartland, 2000). These requirements are intended to encourage professionals to expand their knowledge base and stay up-to-date on new developments. Depending on the field, these requirements may be satisfied through college or university coursework, extension courses or conferences and seminars attendance (Houle, 1980). Although individual professions may have different standards, the most widely accepted standard, developed by the International Association for Continuing Education & Training, is that ten contact hours equals one CEU.

CPD is a thriving enterprise across many disciplines and professions. Professionals have a plethora of options to choose from regarding educational content as well as delivery systems. These programmes may include attendance at live conferences and seminars, or independent home study via journals, CDs, or web-based programmes. For most health-care practitioners, CPD is closely linked to maintaining licensure, and therefore embedded in professional practice. Pharmacists were first required to participate in mandatory CPD in 1967 in Florida and Kansas. Now, mandatory CPD is required by 51 boards of pharmacy in the United States as a prerequisite for relicensure. (Driesen et al, 2004).

Many definitions of CPD exist, but is exemplified by the definition in a UK (United Kingdom) government white paper entitled, A First Class Service, as *"a process of lifelong learning for all individuals and teams which meets the needs of patients, delivers the health outcomes and health care priorities of the population, and which enables professionals to expand and fulfil their potential."* More specifically, CPD as defined by the Royal Pharmaceutical Society of Great Britain (RPSGB) states "CPD includes everything that a pharmacist learns which makes him or her better able to do his

or her job. It is a cyclical process of reflection, planning, action and evaluation." CPD therefore differs from CE, which is just one element of the CPD process and is all about developing one's practice. The question should be what I am going to do differently tomorrow as a result of today's CE experience, which in effect, is then CPD.

Arguments in support of current mandatory CE are based on the assumption that health care professionals need to continue their education in order to be competent; the health care that the public receives is in jeopardy, if health care professionals fail to remain current in their field; health care providers can increase their competency through education; most health care professionals would not engage in formal learning within their own discipline unless required to do so; and increased knowledge will result in improved performance of health care professionals (McPartland, 2000).

CPD has been defined by Hanson, Bruskiewitz and DeMuth (1990) as *"post-graduate professional education, involving a cycle by which individual practitioners assess their learning needs, create a personal learning plan, implement the plan, and evaluate the effectiveness of the educational intervention as it applies to their pharmacy practice."* Rouse (2004) has provided an extensive overview of CPD, including its relationship to lifelong learning (LLL) and CE, and he has articulated a 5-step CPD model derived and adapted from the CPD models of others. His model includes the following steps: reflect; plan; act; evaluate; and record. Austin (2005) has described specific, distinctive features of CPD to include the importance of self-identified learning needs and that CPD is self-directed, requiring learners to demonstrate motivation and responsibility for their learning. Integral to the CPD model is the responsibility placed on the individual learner to be actively involved in this 5-step process.

Houle (1980) asserts that it is the inherent responsibility of all professionals to remain current, and Cross (1981) believes that even though voluntary education is preferable, required learning is better than none. Many health care professionals would not voluntarily attend CE programmes. According to the registration lists from approximately 120 of Southeastern Massachusetts Area Health Education Centre (SMAHEC, 2004) educational offerings, rarely did people not requiring CPD for relicensure attend any of these workshops. Therefore, regulations are necessary in order to insure that health care professionals update their skills.

Writers such as Rockhill (1981) and Day (1980) are opposed to mandating CE on the basis that it limits learning and freedom. However, society often limits individual freedom when necessary for the public good. Restricting the speed at which one can drive

a car or restricting the use of drugs are examples. Certainly, protecting the public from unknowledgeable doctors, pharmacists and nurses is necessary for the public good.

Furthermore, as Mattran (1981) points out, when a person decides to pursue a career in a field that traditionally requires licensure that person also decides to abide by the canons of the chosen profession and CE is not an infringement of individual freedom. He argues that "since the professions are not static but dynamic, individual members of the professions cannot retain their integrity if they themselves remain static."

Mattran (1981) believes that the real issue is the manner in which mass mandatory CE becomes institutionalized and sustained. He feels that if a state, in response to the desire of a professional body to improve through CE the services offered to the public, uses its power of licensure to ordain into law standards and procedures recommended by the professional body, the state's authority is legitimate.

Currently, the mandate and requirements for CE are coming from within the professional groups; therefore it is appropriate. Moreover, many health care professionals prefer CE to periodic examinations. Most health care professionals enjoy and receive several benefits from participating in CE programmes. In a study based on needs assessment of continuing health professional education it was found "that 98.3 percent of physicians surveyed said that CE was important to them professionally." These offerings can stimulate and enhance the abilities of health care professionals. CPD courses provide an opportunity to get away from normal routines and be exposed to new ideas. They can also help prevent burnout and allow networking with professional colleagues (McPartland, 2000).

Rockhill's (1981) argument that less effort is made to develop a challenging and exciting educational experience when there is a captive audience is not the situation in health professional CE. Since the competition for CE clients is usually keen, the planners have an incentive to make their programmes appealing. Further, under current requirements, health care professionals have an extremely wide range of educational alternatives. They can select workshops from a large listing of CE programmes. Even home study offerings are available. Therefore, the health care professionals can meet requirements with little effort. Since there is so much variety and flexibility, they can also choose courses most stimulating to them and educational settings which best fit their individual preferences. CPD programmes can also serve as a catalyst for more formal programmes.

There is no question that, if the public is to receive the best quality of care, health care professionals need to continue to learn. However, as Houle (1981) states, "participation in organized activities is only one mode of continuing learning and not necessarily the most effective or appropriate under all circumstances." The ideal situation would be, as Darkenwald and Merriam (1982) suggested, mandating "competent performance through periodic evaluations and to deny re-licensing to those who fail to demonstrate continued proficiency." Periodic evaluations may be more effective than mandatory CE programmes, but health care professionals are apt to resist them vigorously. Mandating CE is a feasible alternative, being relatively easy to administer and acceptable to most professionals. Yet, shortcomings have gone unnoticed.

With regard to course content, Brookfield (1986) suggests that since doctors, pharmacists and nurses regularly encounter real life instances in which agonizing choices between different courses of action have to be made, serious ethical dilemmas are experienced, the neat prescriptions of textbooks and case histories are inappropriate and contextual factors such as personality, political climate or budgetary change significantly alter practice. In staff development exercises for such groups, it is much more meaningful to build curricula and organize workshops that take these experiences as their starting point, engage participants in a collaborative analysis and exploration of experiences and encourage professionals to reflect continually on their interpretation of correct practice in actual work settings.

Notwithstanding arguments against it, mandatory CE is useful in maintaining professional competence. With revisions in the present system, CE can play a significant role in enhancing the quality of health care as well as provide professionals with an enriching experience (Onuoha, 1991). Healthcare workers, even after being exposed to new interventions and knowledge, continue to operate according to their own established, habitual procedures, demonstrating the necessity of introducing new and more effective training methods (Onuoha, 1991).

Benefits of CPE

According to various studies, including the U.S Department of labour, adults complete CE for a number of reasons. The foremost reason is for personal accomplishment while learning things they are interested in as a second reason. Wetzer (2008) revealed that over 70% of adult believe taking CE courses will increase their salaries by moving up the ladder in their work place. Which in many cases this is true.

However, over 60% state their primary reason for taking CE courses is to make them more marketable for changing careers. CE benefits individuals, communities and the country's economy. As stated by Sheaffer, Phillips, Donlevy and Pietruch (2002):

a) It provides individuals with the knowledge, skills, values, attitudes and understanding they will need in life as individuals, citizens and workers.

b) It makes communities more productive and innovative, as workers create and discover new abilities and ideas. In our knowledge-based economy and society, change is constant in the workplace. But people who embrace lifelong learning—who constantly learn new skills and train for new challenges—can better cope with the demands of workplace changes.

c) It strengthens the economy. The more skills, knowledge and ability that individuals develop, the greater the level of capacity in the economy. A stronger economy means citizens benefit from the chance to earn more, live better and contribute to the economic system.

We live in a world where people must have the skills to understand, interpret and process different information. Because of that, it's essential to recognize and value all forms of learning. People who upgrade their work skills and knowledge not only can keep up with the latest technologies and business techniques, but they can receive other benefits, such as the training needed to climb the corporate ladder and to realize additional career goals.

Preparations for CE delivery

Providers of continuing pharmacy education strive to design, develop, and conduct programmes that meet the “needs” of their target audience. Such needs may be associated with programme content (i.e., topics, subject matter) or related to delivery (format, scheduling, and learning style). Motivations for assessing the needs of the target audience are both internal and external. Internally, providers seek to do what is best for the profession of pharmacy, their target audiences, and to attract a sufficient number of attendees to offset programme expenses. Externally, providers strive to meet the mission of their organization, and to distinguish their programmes from others with whom they compete in the business of providing continuing pharmacy education. In addition, providers are expected to assess the needs (content and delivery) of their target audience

as a requirement of their accredited provider status through the Accreditation Council for Pharmacy Education (ACPE).

The most frequent type of needs assessment is focused on programme topics and/or content of interest to pharmacists conducted through ongoing programme evaluations and, less frequently, in-depth surveys of interests. The potential downfall is that this singular approach may result in an educational programme that has excellent content but less than ideal participation and/or impact because of non-content related factors such as delivery. One delivery factor which encompasses many potential delivery issues is access, which includes, but is not limited to, programme characteristics such as format (live versus home study), scheduling, and location. A second delivery factor is simply time; does the individual have the time to devote to learning endeavours? A third delivery factor is learner characteristics such as learning style, motivation, and learning skills. According to Hanson et al (1990), these characteristics are requisites to LLL and learning skills (i.e., determining learning needs, developing learning plans, evaluating learning plans) that when brought to the learning environment by the individual, may, in time, affect the learning outcome

While learner characteristics have current relevance in the CE and/or LLL environment, they may become increasingly important as the profession of pharmacy in the United States explores the relative merits of CPD as a learning model to enhance CE. Regardless of the educational model (i.e. CPD, LLL, or even CE as a component of the prior 2 models) utilized to address the content needs of pharmacists in the design and development of educational programmes, learner characteristics, and delivery factors are important design/development issues as well. Thus, it is incumbent upon providers of continuing pharmacy education to assess the extent to which these learner characteristics are perceived by their target audience as facilitators and/or barriers as they make decisions to participate in educational programmes. Awareness of these perceptions by the provider can be utilized in the design and development of educational programmes. Likewise, pharmacists' awareness of such perceptions and their ability to overcome personal barriers and optimize facilitators to LLL may be an important step in optimizing self-assessment and thus reflection as it applies to self-directed learning activities in the LLL and/or CPD models. Hanson et al (1990) developed a survey instrument to assess pharmacists' perceptions of the extent to which many of these delivery-related needs (i.e., format, time, learner characteristics) impact upon their participation in CE, acknowledged as a component of the broader concept of LLL activities.

Challenges and barriers associated with CE

One of the challenges of CPD is to ensure that members of the medical profession maintain and improve the competencies in medical practice. CPD is an evolving system and different countries in Africa are at different levels of development.

Factors that facilitate the implementation and participation in CE for health workers arise from individual, professional and organizational perspectives. While the philosophy behind CE is to encourage health workers to become lifelong learners, the learning method chosen for such programmes is often didactic in nature, as opposed to encouraging them to take initiative and direct their own learning. CE is intended to ensure healthcare practitioners' knowledge is current, but it is difficult to determine if those who attend these courses are implementing what they have learnt.

According to Driesen, Verbeke, Simoens and Laekeman (2006), most frequently mentioned barriers to attending CE were lack of time, family constraints, distance to the classes and uninteresting subjects. A particular point of dissatisfaction was that many respondents felt they were too busy to attend lecture meetings and were therefore interested in education via the Internet.

Types and methods of CPE

The methods of delivery of CE can include traditional types of classroom lectures and laboratories. However, much CE makes heavy use of distance learning, which not only includes independent study, but which can include videotaped/CD-ROM material, broadcast programming, online/Internet delivery and online Interactive Courses. In addition to independent study, the use of conference-type group study, which can include study networks (which can, in many instances, meet together online) as well as different types of seminars/workshops, can be used to facilitate learning. A combination of traditional, distance, and conference-type study, or two of these three types, may be used for a particular CE course or programme.

AMREF (1983) identified the following strategies for providing CE:

1) Staff meetings within health facilities
2) Meetings with professional colleagues (e.g., workshops, seminars and conferences)
3) In-service trainings such as on-site supervision and coaching,
4) Self-study using books, journals, correspondence courses and self-assessment examinations
5) Radio programmes and other mass media methods, and

6) Exchange visits among health workers from different facilities.

Other forms of CE include:

Training programmes

Many authors agree that courses and training programmes comprise an effective strategy in the CE of workers (AMREF 1983; Waintright, Taumocpeau and Foliki, 1986; Rahim, Ghorashi, Nalder, El Faki and Bower, 1988). AMREF (1983) further stated the important decisions that should be made for a well organized and effective refresher programme, including who needs refresher courses, where to hold them, what teaching methods should be used, what teaching materials will be needed, and who the teachers will be. In addition, evaluation of all refresher courses should take place before, during and after the work to describe, judge and improve on what has been done.

Professional/Staff meetings

Regular staff meetings are among the important tools of management (McMahon, Barton and Piot, 1980) and may be held to discuss common problems, review progress and plan future work (AMREF, 1983). Handled well, meetings can produce great benefits, but run badly, they can lead to frustration, acrimony and poor performance (AMREF, 1983). Badly run meetings usually result when a team leader thinks little about them before hand. Therefore, Amonoo-Lartson, Ebrahim, Lovel and Ranken (1984) recommended using the five P's for conducting a good meeting as follows:

1) Planning is required to think through the purpose of the meeting, and knowing in advance what is expected to be achieved
2) Pre-notification aims at informing members well in advance about the time and agenda of the meeting
3) Preparation pertaining to proper sequencing and time allocation of agenda items
4) Processing is needed to deal with the structure and flow of discussion during the meeting so that members are kept to the point, old ground is not recovered, private side conversations are curbed, disagreements are reconciled and all members are encouraged to participate
5) Putting the meeting on record is the final process and thus summarizes important decisions reached and actions taken.

Self study

Self-study probably is and will remain one of the most important ways that people acquire information (AMREF, 1983). In rural areas, however, getting books, periodicals, and journals can be very difficult. This includes the reading of journals, newsletters, magazines and professional text. Self-study should be carried out on daily, weekly basis or as occasion demands. Since pharmacists interact with their customers/patients on regular basis, they are required to always refresh and equip themselves with current information through self study activities.

In-service training (IST)

IST is education for employees to help them develop their skills in a specific discipline or occupation. IST takes place after an individual begins work responsibilities. Most typically, IST is conducted during a break in the individual's work schedule. IST can also be viewed as a process of staff development for the purpose of improving the performance of an incumbent holding a position with assigned job responsibilities. It promotes the professional growth of individuals. "It is a programme designed to strengthen the competencies of workers while they are on the job" (Malone, 1984). IST is a problem-centred, learner-oriented, and time-bound series of activities which provide the opportunity to develop a sense of purpose, broaden perception of the clientele, and increase capacity to gain knowledge and mastery of techniques (Onuoha, 1991).

IST may broadly be categorized into five different types: (1) induction or orientation training, (2) foundation training, (3) on-the-job training, (4) refresher or maintenance training, and (5) career development training (Rogers & Olmsted, 1957). All of these types of training are needed for the proper development of staff throughout their service life.

1. Induction or Orientation Training. Induction training is given immediately after employment to introduce the new staff members to their positions. It begins on the first day the new employee is on the job (Rogers & Olmsted, 1957). This type of training is aimed at acquainting the new employee with the organization and its personnel. Induction training for all new personnel should develop an attitude of personal dedication to the service of people and the organization. This kind of training supplements whatever pre-service training the new personnel might have had (Halim and Ali, 1988). Concerning the characteristics of a new employee, Van Dorsal (1962) said that when people start to work

in an organization for the first time, they are eager to know what sort of outfit they are getting into, what they are supposed to do, and whom they will work with. They are likely to be more attentive and open-minded than experienced employees. In fact, the most favourable time for gaining employees' attention and for moulding good habits among them is when they are new to the job.

2. Foundation Training. Foundation training is IST which is also appropriate for newly recruited personnel. Besides technical competence and routine instruction about the organization, every staff member needs some professional knowledge about various rules and regulations of the government, financial transactions, administrative capability, communication skills, leadership ability, coordination and cooperation among institutions and their linkage mechanism, report writing, and so on. Foundation training is made available to employees to strengthen the foundation of their service career. This training is usually provided at an early stage of service life.

3. Maintenance or Refresher Training. This training is offered to update and maintain the specialized subject-matter knowledge of the incumbents. Refresher training keeps the specialists, administrators, subject-matter officers, extension supervisors, and frontline workers updated and enables them to add to the knowledge and skills they have already. Maintenance or refresher training usually deals with new information and new methods, as well as review of older materials. This type of training is needed both to keep employees at the peak of their possible production and to prevent them from getting into a rut (Van Dorsal, 1962).

4. On-the-Job Training. This is ad hoc or regularly scheduled training and is provided by the superior officer or the subject-matter specialists to the subordinate field staff. This training is generally problem or technology oriented and may include formal presentations, informal discussion, and opportunities to try out new skills and knowledge in the field. The superior officer, administrator, or subject-matter specialist must play a role in providing on-the-job training to the staff while conducting day-to-day normal activities.

5. Career or Development Training. This type of IST is designed to upgrade the knowledge, skills, and ability of employees to help them assume greater responsibility in

higher positions. Malone (1984) also opined that employer that provide the opportunity for all staff to prepare a plan for career training will receive the benefits of having longer tenured and more satisfied employees, which increases both the effectiveness and efficiency of the organization. Malone (1984) also stated that "career development is the act of acquiring information and resources that enables one to plan a programme of lifelong learning related to his or her work life".

There are three approaches to training: (1) the traditional approach, (2) the experiential approach, and (3) the performance-based approach (Rama, Etling, & Bowen, 1993). In the traditional approach, the training staffs designs the objectives, contents, teaching techniques, assignments, lesson plans, motivation, tests, and evaluation. The focus in this model is intervention by the training staff. In the experiential approach, the trainer incorporates experiences where in the learner becomes active and influences the training process. Unlike the academic approach inherent in the traditional model, experiential training emphasizes real or simulated situations in which the trainees will eventually operate. In this model, the objectives and other elements of training are jointly determined by the trainers and trainees. Trainers primarily serve as facilitators, catalysts, or resource persons. In the performance-based approach to training, goals are measured through attainment of a given level of proficiency instead of passing grades of the trainees. Emphasis is given to acquiring specific observable skills for a task. This performance-based teacher education (PBTE) model, developed by Elam (1971), is mostly task or skill centred and is also applicable to non formal educational organisations.

Conceptual framework

The conceptual framework used in this study was precede-proceed model. Precede-proceed model is a planning and diagnostic model modified by Green and Kreuter (2005) for health education and health promotion programmes. Its overriding principle is that most enduring health behaviour change is voluntary in nature. This is also practical: Much research shows that behaviour change is most likely and lasting when people have actively participated in decisions about it. In the process, they make healthy choices easier by changing their behaviour and by changing the policies and regulations which influence their behaviour.

The model is based on three determinants/factors viz predisposing, enabling and reinforcing factors.

Predisposing factors: personal preferences that a group or individual brings to a behavioural choice. Include values, existing skills, perceived needs and abilities. They support or inhibit behaviour and include the cognitive and affective dimensions of knowing, feeling, believing, valuing and having self confidence or self efficacy.
Predisposing characteristics were seen to include demographic factors (age and sex), social structure (education, occupation, ethnicity, and other factors measuring status in the community, as well as coping and the health of the physical environment), and health beliefs (attitudes, values, and knowledge that might influence perceptions of need and use of health services). They provide the motivation or reason behind behaviour; they include knowledge, attitude, cultural beliefs, and readiness to change, and so on.
For this study, it will include the pharmacist's awareness/knowledge about CPD, sex, age/year of practice, sector/area of practice, financial buoyancy e.t.c.

Enabling factors: facilitate the performance of an action. Environmental conditions - availability, accessibility affordability of resources. New skills needed to carry out a behavioural or environmental change. Enabling factors are defined as factors that make it possible (or easier) for individuals or populations to change their behavior or their environment. Enabling factors include resources, conditions of living, societal supports, and skills that facilitate a behaviour's occurrence. In all cases, the aim is to render the environment more supportive of and more conducive to behaviour change. They make it possible for a motivation to be realized; that is, they "enable" persons to act on their predispositions; they include available resources, supportive policies, assistance, and services.

For this study, it will include the following; timing of the CPD, distance of the CPD venue, employer's interest, cost/sponsorship of the CPD, role of the regulatory bodies, and availability of CPD programmes.

Reinforcing factors- positive and negative consequences of an action, including social support, peer influences, advice and feed back of health-care providers and physical consequences of behaviour. They determine whether the individual receives positive feedback for the behaviour and is socially supported after behaviour. Reinforcing factors come into play after behaviour has begun, and provide continuing rewards or incentives;

they contribute to repetition or persistence of behaviours. Social support, praise, reassurance, and symptom relief might all be reinforcing factors.

For this study, it will include the reward/recognition associated with CPD, promotion or not after CPD, enforcement by regulatory agencies, licensing/registration by the regulatory body with or without CPD, increase role/function after CPD

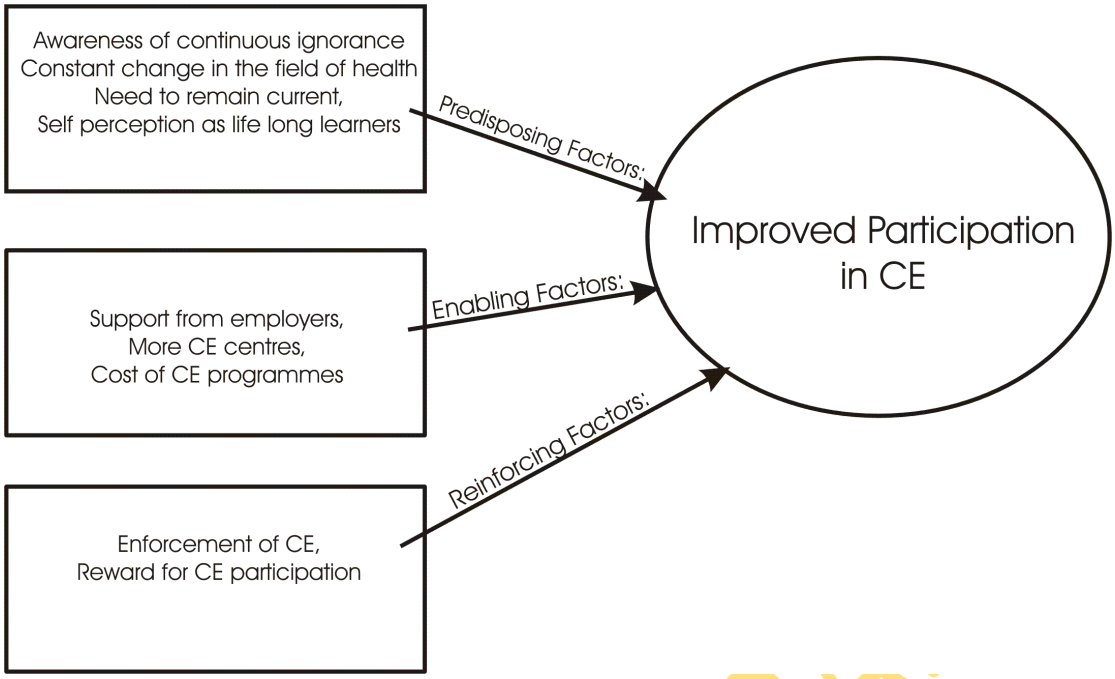

Figure 2.1: Precede-Proceed Framework

Diagram adapted from Green, L.W and Kreuter, M.W 2005: Health Programme Planning; An Educational and Ecological Approach, 4th edition, NY, McGraw-Hill Higher Education.

CHAPTER THREE

METHODOLOGY

Description of the design and scope of the study begin this chapter. Dependent and independent variables are defined to give rise to hypotheses. The distribution of pharmacists in the two states is presented as a basis for a full population study. Development and administration of the instrument, with pretesting in a nearby state is described. Procedure of data analysis and issues of validity and reliability conclude the chapter.

Design and scope

This study was an exploratory descriptive survey that identified the previous CE experiences of pharmacists in Ibadan and Abeokuta as well as their interests in further learning. It can also be seen as a case study of the CE situation as it concerns pharmacists in the two states that have schools of pharmacy.

CE is broad in scope, the researcher however chose four basic forms of CE for the study and documented the involvement of pharmacists in these activities, namely;

1) Attendance at short courses or IST programmes during the two years prior to interview.
2) Monthly attendance at professional/society meetings.
3) Attendance in MCPD organized by PCN.
4) Self-study involving reading of professional texts, journals, newsletters and magazines in the past six months.

The choice of the respective periods of time for the various forms of CE was guided by review of literature, which emphasizes that CE should be a continuous, regular and routine part of health team activity, organized throughout a health worker's career, and not just consisting of a few sporadic courses (AMREF, 1983)

The study focused on all pharmacists who practised in the two states, be they working in private settings, local, state government establishments or teaching hospitals.

Study variables

As mentioned above, there are four major CE activities that are the focus of this study and therefore are the dependent variables under investigation. In order to facilitate meaningful and measurable analysis, a time limit was placed on the various CE experiences. Since CE should be continuous throughout a health worker's career (AMREF, 1983) and according to PCN five years post-graduation MCPD, one would expect that a pharmacist should have attended a MCPD within the past five years or IST within the past two years. With regard to attendance at professional/society meetings, although AMREF (1983) noted that these should be regular, perhaps even weekly, a minimum of quarterly attendance was deemed reasonable. Concerning self study, AMREF (1983) has recommended that health workers visit libraries at least once in a quarter, the lack of such facility and the busy schedule of pharmacists, made the time frame of six months in requesting information about self study reasonable.

Two categories of independent variables were studied, the personal demographic profile of the pharmacists and the organizational environment. The former included sex, age, year of qualification and possession of additional certificate. The latter encompassed work sector (e.g. hospital or community) and location of practice.

Study population

The study population consisted of all available pharmacists in the two sectors of practice; community and hospital practicing in the two capital cities of Ibadan (Oyo state) and Abeokuta (Ogun state) in the year 2009.

Operational definition of terms

Continuing Education (CE): is a form of adult education, be it seminar, conference, in-service training or short courses, which employees undertake to gain additional knowledge and skills.

Continuing Professional Development (CPD): this is a process usually conceived as a circle connecting the stages of reflection, planning, action and evaluation. It is focused on individual development in which individual practitioner determines his/her own learning needs, makes plan to meet those needs, execute those plans and finally evaluates whether the actions were successful.

Continuing Professional Education (CPE): is a specific learning activity generally characterised by the issuance of certificate or continuing education units for the purpose of documenting attendance at a designated seminar or course of instruction

Mandatory Continuing Education (MCE): this is a form of CE that is made compulsory by certain professions for the practitioners to keep up with modern development in such field. This is the CE requirements imposed by licensing bodies on members who hold licenses to practice within a particular profession.

Continuing Medical Education (CME): this is the CE for continuous learning aimed at professional development. In the medical field, CME is vital because health problems keep changing as new diseases and risk factors emerge.

In-service Training (IST): this is a firm of CE that takes place after an individual begins work responsibilities and it is designed to strengthen the competencies of workers while they are on the job

Data collection procedures

Sampling technique

Based on the records available at the secretariat of the PSN, Oyo and Ogun states branches, the researcher documented a potential study population of 264 pharmacists (consisting of 142 and 122 pharmacists in Ibadan and Abeokuta respectively). This represents the number of registered pharmacists in the two cities for year 2008, the year preceding the time the study was conducted. A total population study was attempted i.e. all the pharmacists on the list were invited for the study. This was done by attending monthly meetings of the association in both cities where the researcher distributed the questionnaire to the respondents. The researcher also visited pharmacies and hospitals to reach those that might not attend meetings. The researcher was able to locate and administered questionnaire to 200 pharmacists. This gives a response rate of 75.5% consisting of 70.4% of the 142 pharmacists in Ibadan and 82.0% of 122 pharmacists in Abeokuta as shown in Table 3.1.

Table 3.1: Proportion of Pharmacists Surveyed in Each Study Area

Number of Pharmacists	Location		Total
	Ibadan	Abeokuta	
Expected	142	122	264
Surveyed	100	100	200
% Surveyed	70.4	82.0	75.7

Administration of the questionnaire

The research was conducted between 24th June and 12th November, 2009. The following procedures were adopted before administration of the questionnaires. First, permission was obtained from the respondents' Head of department (for pharmacists that work in government hospitals). For example, in University College Hospital, Ibadan and Federal Medical Centre, Abeokuta, the researcher sought and got the permission of the head of pharmacy department before questionnaires were distributed to the pharmacists in the hospital. Nearly all pharmacists in the hospitals were given the questionnaire to fill at their duty posts. However, many community pharmacists were given the questionnaire during their monthly meetings, though a few community pharmacists were interviewed in their premises. The researcher attended many monthly PSN meetings in each of the cities.

The researcher administered the entire questionnaire himself. It was a self-completed questionnaire. Each session began with an informal opening designed to relax the respondent. Confidentiality and anonymity were guaranteed since the questionnaires have no provision for names and address of the respondents. The interviews also closed on a friendly and thankful note. See appendix 1 for the questionnaire.

Instrument design and content

A 39-item questionnaire was used to obtain information from pharmacists. It consisted of three sections (Appendix 1). Section A contained questions on socio-demographic variables as described above. Section B listed questions about CE experiences, that is, the actual engagement in or involvement with the four major forms of CE studied. Section C included questions that determined respondents' interests in future CE activities, including whether they would like to participate in CE courses, what subjects they would want covered and reasons for these. This section also sought their opinions about the value of CE.

Pretesting the instrument

A draft questionnaire was pretested among pharmacists in Osun State between 9th and 15th April, 2009. Twenty draft questionnaires were administered. Based on the review of responses and the solicited opinions of those who answered the questions, some revisions and corrections were made in the instrument. The following were the revisions made:

Question 7: an addendum "if in community practice, go to Question 8/ if not go to Question 9"

Question 9: "place/location of practice" was changed to "town of practice"

Question 10: "position first held after finishing from pharmacy school" is open to different interpretations and thus was changed to "Position first held after NYSC service"

Question 15: "if yes, please list them" is open to recall bias and was changed to a close-ended question with options given.

Question 16: "if no, why not". The 'why not' is not clear to many respondents, thus was changed to "what is/are the reason(s)"

Question 17: the "Schedule" in the question needs explanation and was made easy by changing to "provision"

Question 19a: "how many times" was a difficult question to many respondents due to inability/difficulty in remembering the number of times they have attended courses. This was simplified by including "within the past one year" in bracket

Question 19d: "if yes, what did you learn" is complex and was therefore simplified with structured options i.e. close-ended.

Question 19e: "if no to Q18, why not" is too detached from Question 18 and therefore was made part of Q18.

Question 25: "did you undergo any formal education coursework/postgraduate course" is open to many interpretations and was therefore adjusted to read "did you undergo any postgraduate course in the last two years?"

Question 26d: "if yes, what did you learn from the last course" is too complex/ difficult question due to recall bias/error. Therefore options were included to make it a close-ended question.

Question 26e: "if no to Q25, why not" is too detached from Question 25 and therefore was made part of Q25.

Questions 36 & 37 were adjusted to make them close-ended questions with options for the respondents to choose from.

In the addition to the above, Onuoha (1991) work was also consulted to adjust the draft questionnaire.

Data analysis

All questionnaire responses were hand coded by the researcher. The SPSS version 15.0 computer software programme was used to perform analysis. The data are presented using frequency tables, graphs and charts. Tests of significance were set at 95% confidence level. Hypotheses were tested using both the Chi-square and ANOVA statistical tests. 5% probability level was used for rejecting the null hypotheses.

Reliability/Validity

Validity and reliability describe the expected measure and the accuracy of the measuring instrument. The following steps were taken to ensure reliability and validity of the instrument. First, a draft of the questionnaire was developed with the help of the supervisor and lecturers in the Department of Health Promotion and Education. The questionnaire was designed in simple English to facilitate easy understanding. Secondly, a pilot study was carried out in similar locations (Oshogbo and Ife) which have similar characteristics with the study area. Thirdly, a revision was made based on the analysis of the pre-test. A test-retest reliability test was done on the pre-test questionnaire which gave p=0.964. The pre-tested questionnaire was then used to develop a more accurate final version which was subsequently administered to the main study participants. Inter-observer reliability problems were eliminated because the researcher administered the entire questionnaire personally.

Face and content validity were ensured through review of relevant literature and review by persons experienced in CE, such as the researcher's supervisor. Thus the chosen study variables and indicators, and the questions arising from them were seen to be valid representations of the study objectives. The regulatory body of pharmacy in Nigeria, PCN, was also contacted to get the necessary information about pharmacists from the two cities participation in MCPD for the past five years.

Ethical considerations

Ethical permission was obtained from the College of Medicine, University of Ibadan Ethical Committee (see Appendix 2 for the copy of the approval). Informed consent was obtained from each participant by including a consent form in the questionnaire which respondents were asked to read and sign. They were informed that participation was voluntary and data collected would be used solely for research purposes. Anonymity and confidentially of responses were ensured by not including any

known form of identification (name or address) in the questionnaire. The researcher also ensured that no person(s) apart from those involved in the study have access to the data collected.

Limitations to the study

This study had two limitations. First, although a total population study was intended, not all pharmacists could be traced, particularly due to non-attendance at monthly professional meetings and absence from their pharmacies. As shown in the next chapter, the few who could not be contacted are not different from the main study group.

Another possible limitation may relate to the fact that four of several forms of CE were selected for study. Such CE approaches as mass media, internet study and correspondence courses were not included. On the other hand, those aspects studied were clearly within the control of the individuals' concerned and therefore amenable to change depending on study findings.

Recall problems may have affected the validity of responses on in-service courses taken due to the five-year time span.

CHAPTER FOUR

RESULTS

This chapter begins by reporting the socio-demographic and professional characteristics of the respondents. This is followed by presentation of respondents' CE experiences. Factors that may be associated with participation in CE are analysed in this context. Finally respondents' interests in future CE activities are outlined.

Socio-demographic and professional characteristics of respondents

More than half of the respondents were males (62.5%) and most were married (88.0%). Their ages ranged from 28 to 62 years with a mean of 41.8 years. The age distribution of the respondents in age groups is as follows: 30-39years (51.0%), 40-49years (32.5%) and 50years above (11.5%). Concerning marital status, majority of the respondents are married (88.0%) while 10.5% are single and the remaining 1.5% are widowed. Majority of the respondents practiced Christianity (79.5%) while 20.0% were Islamic adherent and the remaining 0.5% practiced traditional religion. Regarding acquisition of additional qualifications after the Bachelor of Pharmacy degree, only forty-two percent had obtained other qualifications while more than half (58.0%) have not. Table 4.1 also shows the additional qualifications of respondents ranging from masters' degree (35.0%), professional certificate (4.0%) and diploma certificate (3.0%).

The distribution of the respondents between the two main sectors of pharmacy practice viz community and hospital practice shows that slightly more than half (51.5%) are community pharmacists and 48.5% are hospital pharmacists. The stake of the respondents that practice as community pharmacists varies from being owners of the premise (60.2%), full time employees (37.9%) and part-time/locum pharmacists (1.9%). All these characteristics are shown in Table 4.1.

Table 4.1: Socio-Demographic characteristics of survey respondents (200)

Characteristics	No	%
Sex		
Male	125	62.5
Female	75	37.5
Age (years)		
20—29	3	1.5
30—39	102	51.0
40—49	65	32.5
50 and above	23	11.5
No response	7	3.5
Marital status		
Single	21	10.5
Married	176	88.0
Widowed	3	1.5
Religion		
Christianity	159	79.5
Islam	40	20.0
Traditional	1	0.5
Additional qualification		
Masters	70	35.0
Professional certificate	8	4.0
Diploma	6	3.0
None	116	58.0
Sector of practice		
Community	103	51.5
Hospital	97	48.5
Stake in Comm. Practice		
Owner of premise	62	60.2
Full time employee	39	37.9
Locum/part-time	2	1.9

The year of graduation of the respondents varies from 1971-1980 (4.5%), 1981-1990 (25.0%), 1991-2000 (41.0%) and 2001-2010 (29.5%) as shown in Figure 4.1. Positions first held after NYSC varied from grade 1 pharmacists (45.5%) superintendent pharmacists (34.6%) and medical representative (10.0%). However, positions currently held by the respondents include the following: grade 1 pharmacists (22.5%), director/manager (21.5%), superintendent pharmacists (14.5%), senior pharmacists (13.5) and principal pharmacists (8.5%) as shown in Table 4.2. With regard to promotion, only 54.8% reported receiving promotion in the past five years while the remaining (45.2%) have not as shown in Figure 4.2. Half of the respondents spend average of eight hours per day at work while the time spends by the remaining varied from six to twelve hours.

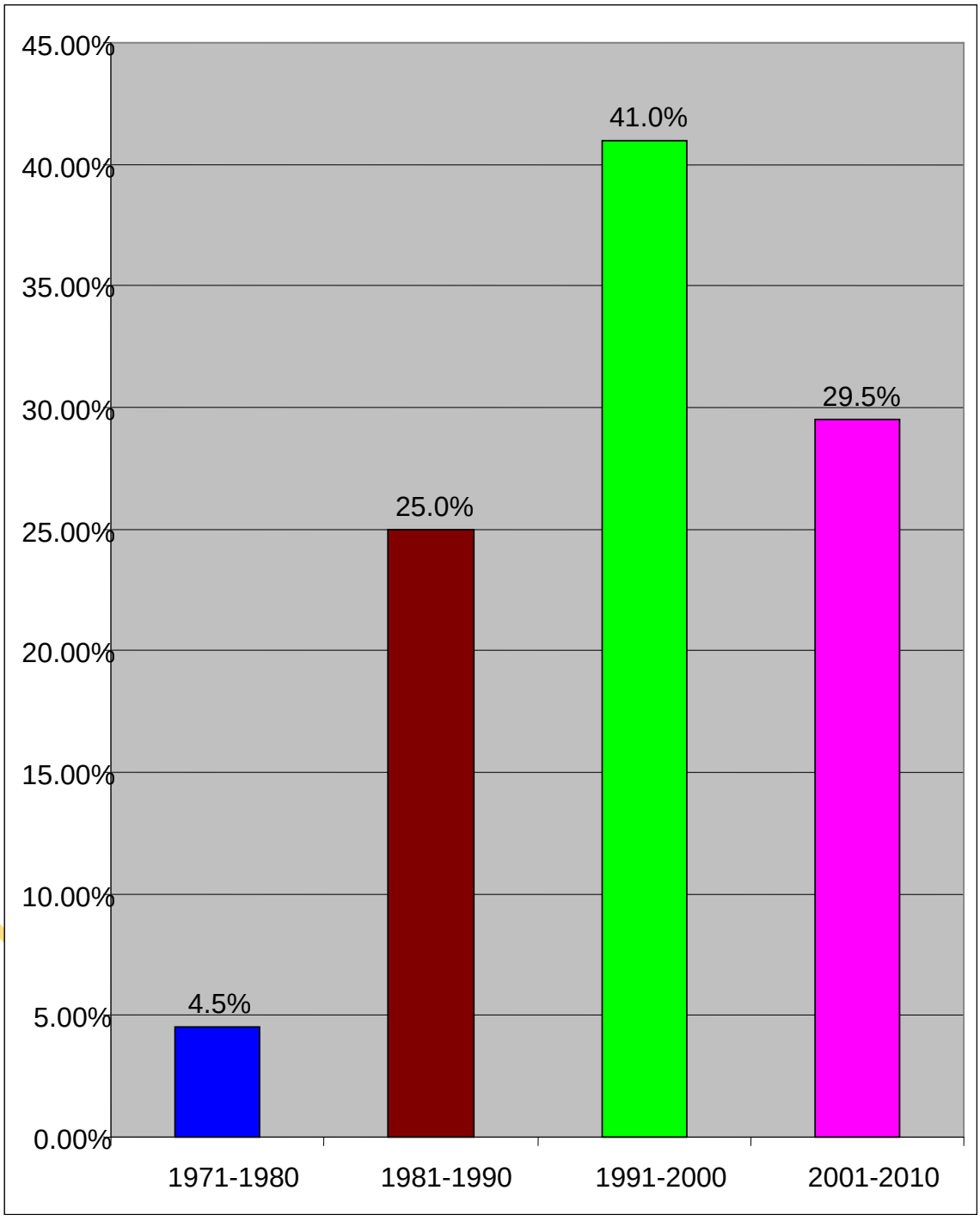

Figure 4.1: Year of graduation of respondents

Table 4.2: Positions held by respondents at different times

Position	No	%
Position first held after NYSC		
Grade 1 pharmacist	91	45.5%
Superintendent pharmacist	69	34.6%
Medical representative	20	10.0%
Position currently held		
Grade 1 pharmacist	45	22.5%
Director/Manager	43	21.5%
Superintendent pharmacist	29	14.5%
Senior pharmacist	27	13.5%
Principal pharmacist	17	8.5%

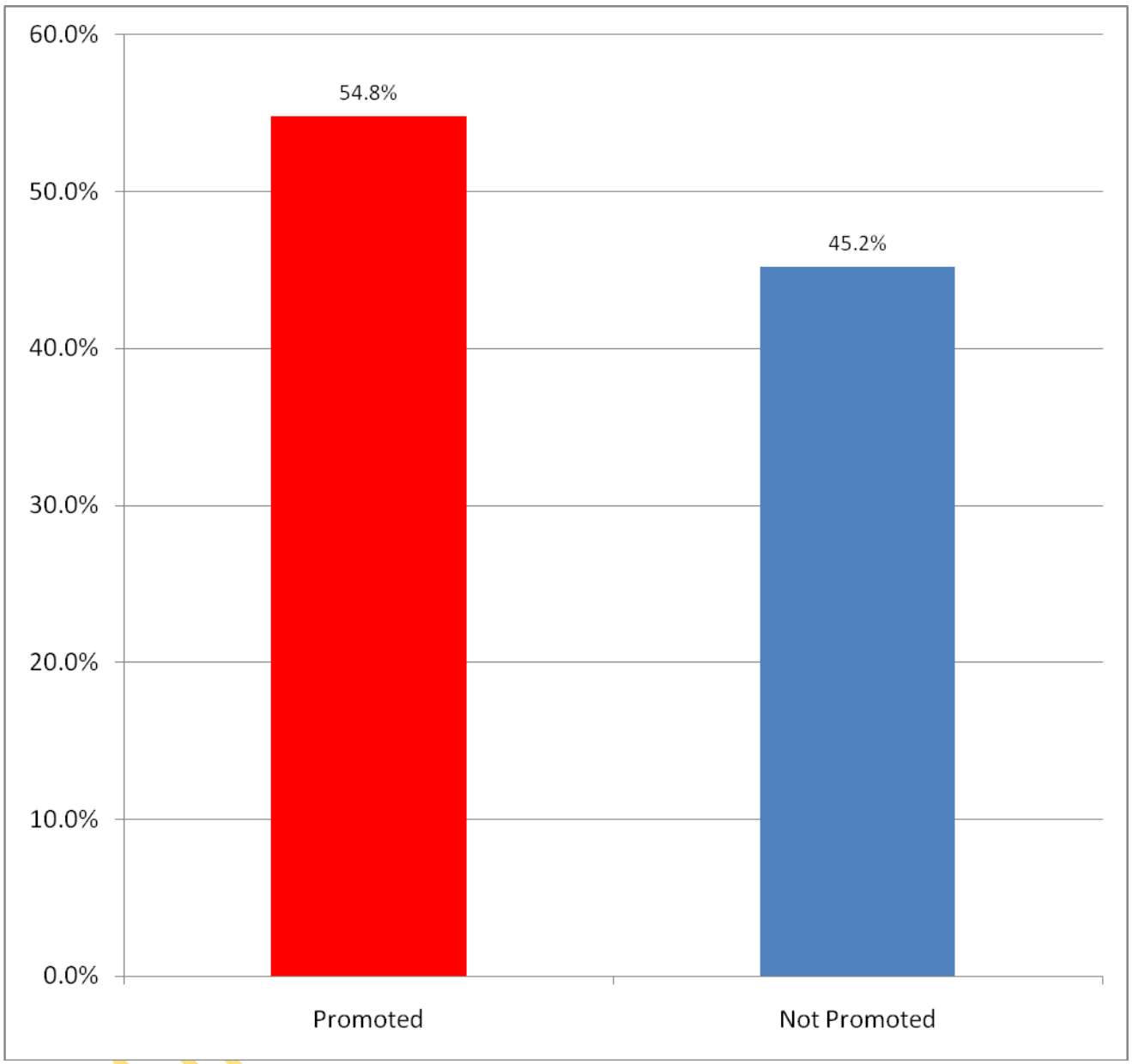

Figure 4.2: Promotion of respondents in the past five years.

CE experiences of respondents

The level of participation in the four forms of CE activities is presented next.

(1.) In-Service training (IST)

Majority (83.0%) of the pharmacists had attended an IST in the last two years while 17.0% had not. Most (53.5%) of the IST were short seminar and workshops related to specific topics such as disease treatment, new anti-malaria policy. The other forms of IST was postgraduate courses which less than half (36.9%) had participated in ranging from master degree in different areas of pharmacy and public health (57.6%), fellowship of the West Africa Postgraduate College of Pharmacists {WAPCP} (34.9%), doctorate degree (4.5%) and masters in administration (3.0%) as shown in Table 4.3.

Reasons for attending the IST were many. The largest individual response was "to update/improve knowledge" (46.2%). Others attended for registration purpose with PCN (34.1%), in order to network with other pharmacists (16.2%). A few attended simply because the courses were sponsored by the office (3.5%) as shown in Figure 4.3.

The inability to attend any IST was attributed to no provision for CE in establishments (31.0%), lack of fund (19.0%) and inconvenient schedule time (19.0%). Others (16.7%) mentioned no facilities for CE in the environment as reason for not attending CE while a few (14.3%) said they were too busy to attend as shown in Table 4.4.

The outcome of the IST activities include introduction to Pharmaceutical Care (32.5%), update about recent advances in therapeutics (27.7%), update on patients counselling guideline (22.3%) and introduction to consultancy services (17.5%). Majority (98.5%) of the respondents agreed that participation in IST had positive effects on their work.

Participation in any IST in the past two years was compared with independent variables as hypothesized. No association ($p > 0.05$) was found between age and participation in IST as seen in participation of different age groups. Pharmacists aged 30-39years (81.0% of 102), 40-49years (81.5% of 65) and 50years above (91.3% of 23) were equally likely to have attended IST.

There was also no significant association ($p > 0.05$) between sex and participation in IST as evidence from males (82.4% of 125) and females (84.0% of 75) were equally likely to have attended IST. Also there was no association ($p > 0.05$) between area of

practice and participation in IST as 87.4% of 103 community pharmacists and 78.4% of 97 hospital pharmacists was equally likely to have attended IST.

Considering the town of practice of the respondents in respect to participation in IST, there was no association ($p > 0.05$) between the town of practice and participation in IST as 87.0% of 100 pharmacists in Abeokuta and 79.0% of 100 pharmacists in Ibadan was equally likely to have attended IST.

Table 4.3: Types of postgraduate courses respondents participated in

Qualification	No	%
Masters	38	57.6
WAPCP Fellowship	23	34.9
PhD	3	4.5
Administrative training	2	3.0
Total	66	100

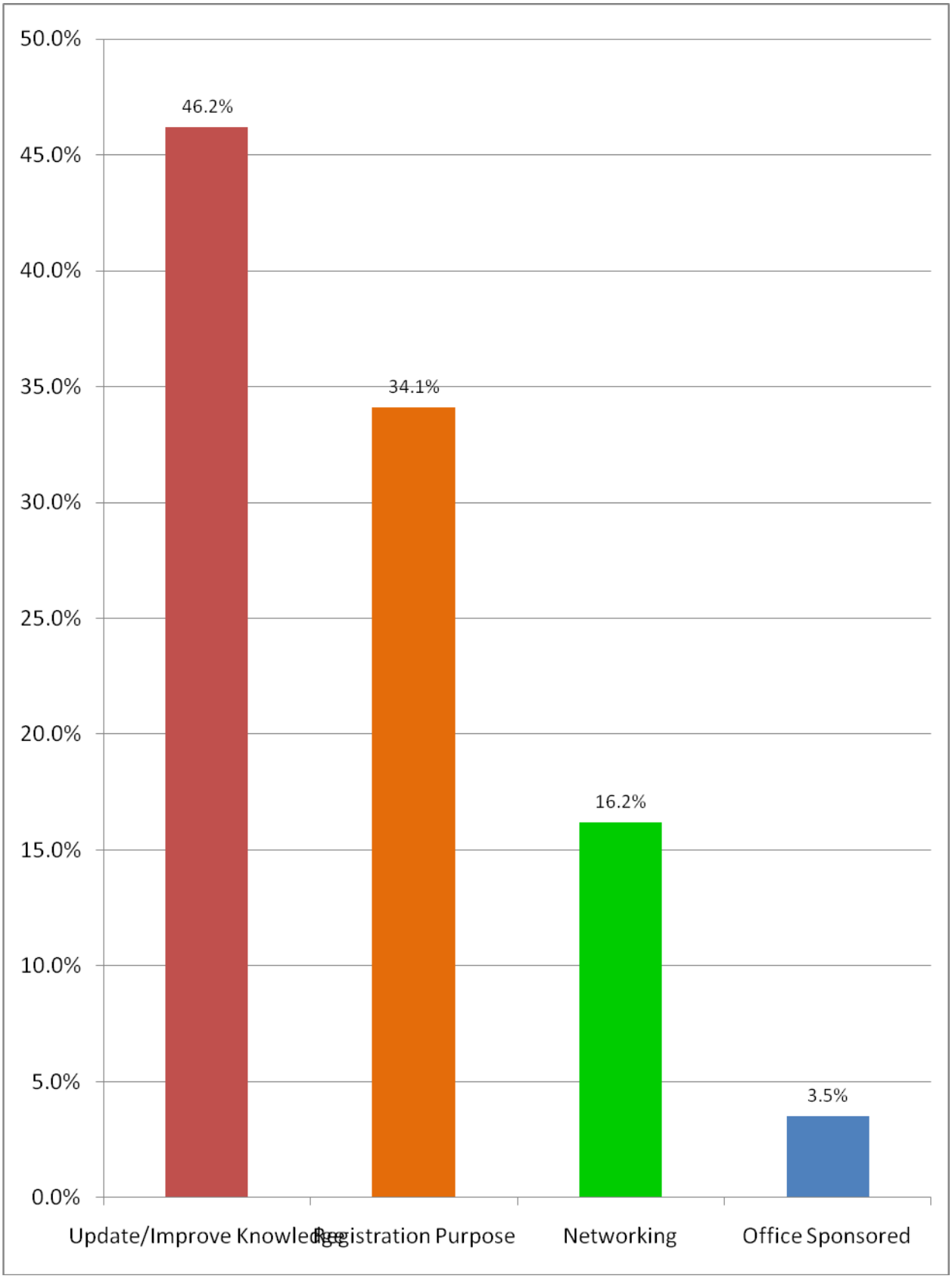

Figure 4.3: Respondents' Reasons for attending IST

Table 4.4: Respondents' Reasons for not attending IST

Reasons	No	%
No provision for CE in organization	13	31.0
Lack of fund	8	19.0
Inconvenience of CE timing	8	19.0
No facilities for CE in the environment	7	16.7
Too busy	6	14.3
Total	42	100

(2.) Mandatory continuous professional development (MCPD)

Majority (80.5%) of the respondents had participated in MCPD in the last two years. Reasons for attending MCPD were to upgrade knowledge (47.9%), for PCN registration purpose (35.3%) and networking with other pharmacists (16.8%) as shown in Figure 4.4. Table 4.5 showed the benefits derived from attending MCPD which include "updating on Pharmaceutical Care" (60.5%), update about recent advances in therapeutics (49.0%), awareness on the recent trends in disease management (43.0%), training on management/administrative skills (39.6%) and exposure to consultancy services (12.0%)

Participation in MCPD in the past two years was compared with independent variables as hypothesized. No association ($p > 0.05$) was found between age of the respondents and attendance of MCPD as seen in participation of different age groups. Pharmacists aged 30-39years (81.0% of 102), 40-49years (89.2% of 65) and 50years above (60.9% of 23) were equally likely to have attended MCPD.

There was also no significant association ($p > 0.05$) between sex and attendance of MCPD as evidence from males (80.0% of 125) and females (81.3% of 75) were equally likely to have attended MCPD. Also there was no association ($p > 0.05$) between area of practice and attendance of MCPD as 82.5% of 103 community pharmacists and 78.4% of 97 hospital pharmacists were equally likely to have attended MCPD.

Considering the town of practice of the respondents in respect to attendance of MCPD, there was no association ($p > 0.05$) between the town of practice and attendance of MCPD as 76.0% of 100 pharmacists in Abeokuta and 85.0% of 100 pharmacists in Ibadan were equally likely to have attended MCPD.

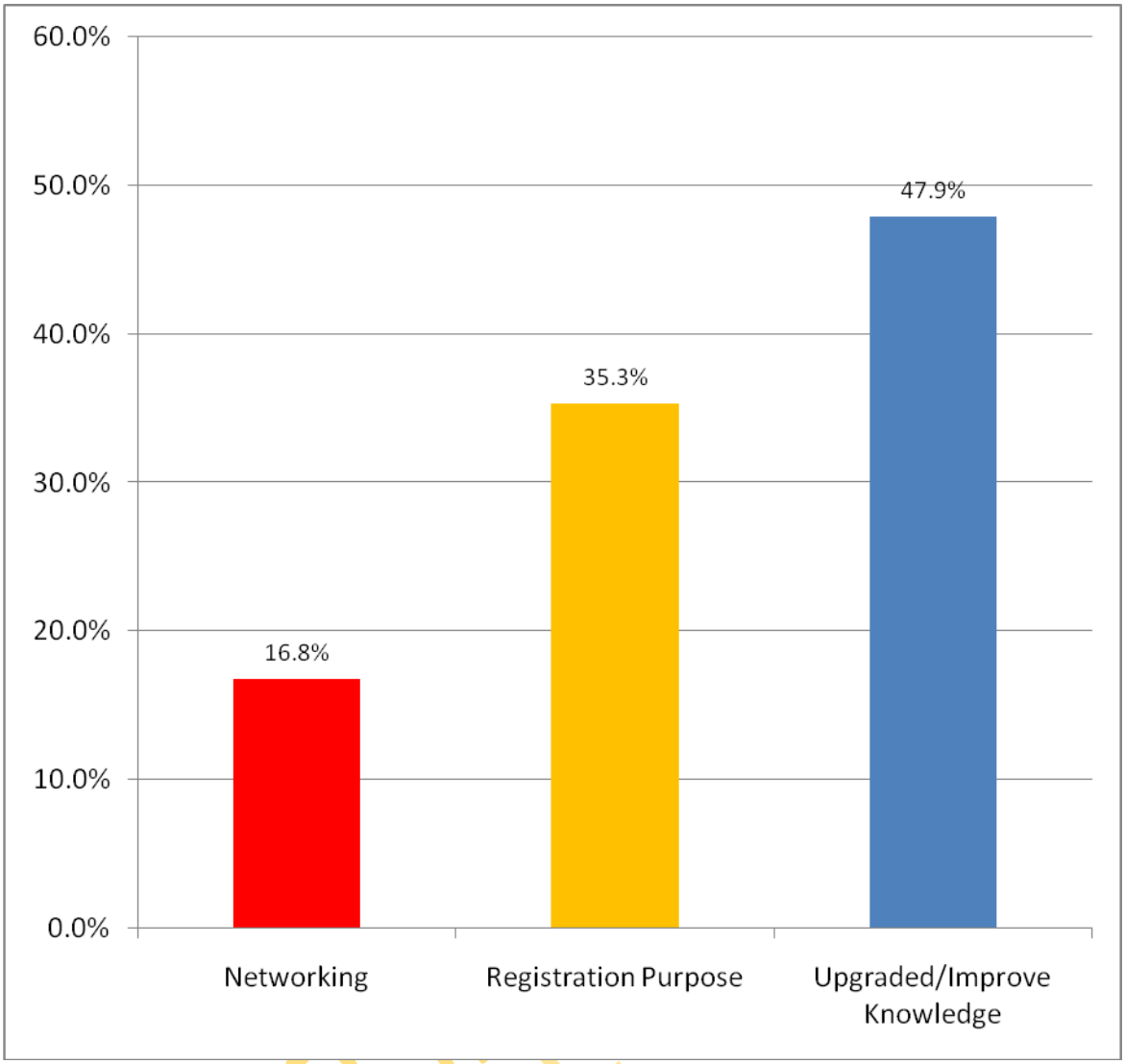

Figure 4.4: Respondents' Reasons for attending MCPD

Table 4.5: Respondents who identified specific benefits of attending MCPD (N=200)

Benefits	Number of respondents (%)
Update on pharmaceutical Care	121 (60.5)
Recent advances in therapeutics	98 (49.0)
Disease management	86 (43.0)
Exposure to management/administrative training	79 (39.5)
Exposure to consultancy services	24 (12.0)

N.B; Multiple responses included.

(3.) Monthly Professional meetings (MPM)

Less than half (44.5%) of the respondents said they had attended a professional meeting in the past three months while 55.5% had not as shown in Table 4.6. Although only 32.5% claimed to have gone to a meeting in the last one month. Those (89) who had attended a meeting within three months stated various purposes for holding the gathering. Discussion on the general welfare of members/the progress of the profession was the most frequently mentioned item (54.9%). In some cases (17.1%) training on the relevance and importance of pharmaceutical care services topped the agenda. Training on management skills and the need to improve performance were reasons given by 13.4% and 8.5% respectively while 6.1% said social interaction was the basis of the meetings as shown in Figure 4.5.

When asked specifically what new skills were passed at the last meeting, most (72.0%) responded that new skills were passed at the last meeting. Those (59) who had received new skills mentioned the following: service improvement technique (40.5%), insight into management techniques/skills (38.0%), insight into pharmaceutical care (21.5%) as shown in Figure 4.6.

Participation in MPM in the past three months was compared with independent variables as hypothesized. No association ($p > 0.05$) was found between age of the respondents and attendance of MPM as seen in participation of different age groups. Pharmacists aged 30-39years (40.2% of 102), 40-49years (53.9% of 65) and 50years above (34.8% of 23) were equally likely to have attended MPM.

There was also no significant association ($p > 0.05$) between sex and attendance of MPM has evidence from males (41.6% of 125) and females (49.3% of 75) were equally likely to have attended MPM. Also there was no association ($p > 0.05$) between the town of practice and attendance of MPM as 48.0% of 100 pharmacists in Abeokuta and 41.0% of 100 pharmacists in Ibadan were equally likely to have attended MPM.

However, considering the area of practice of the respondents in respect to attendance of MPM, there was significant association ($p < 0.009$) between area of practice and attendance of MPM as 43.7% of 103 community pharmacists and 45.4% of 97 hospital pharmacists were likely to have attended MPM. This is shown in Table 4.7.

Table 4.6: Attendance of MPM by respondents in the last three months

Attendance of MPM	No	%
Attended	89	44.5
Absence	111	55.5
Total	200	100

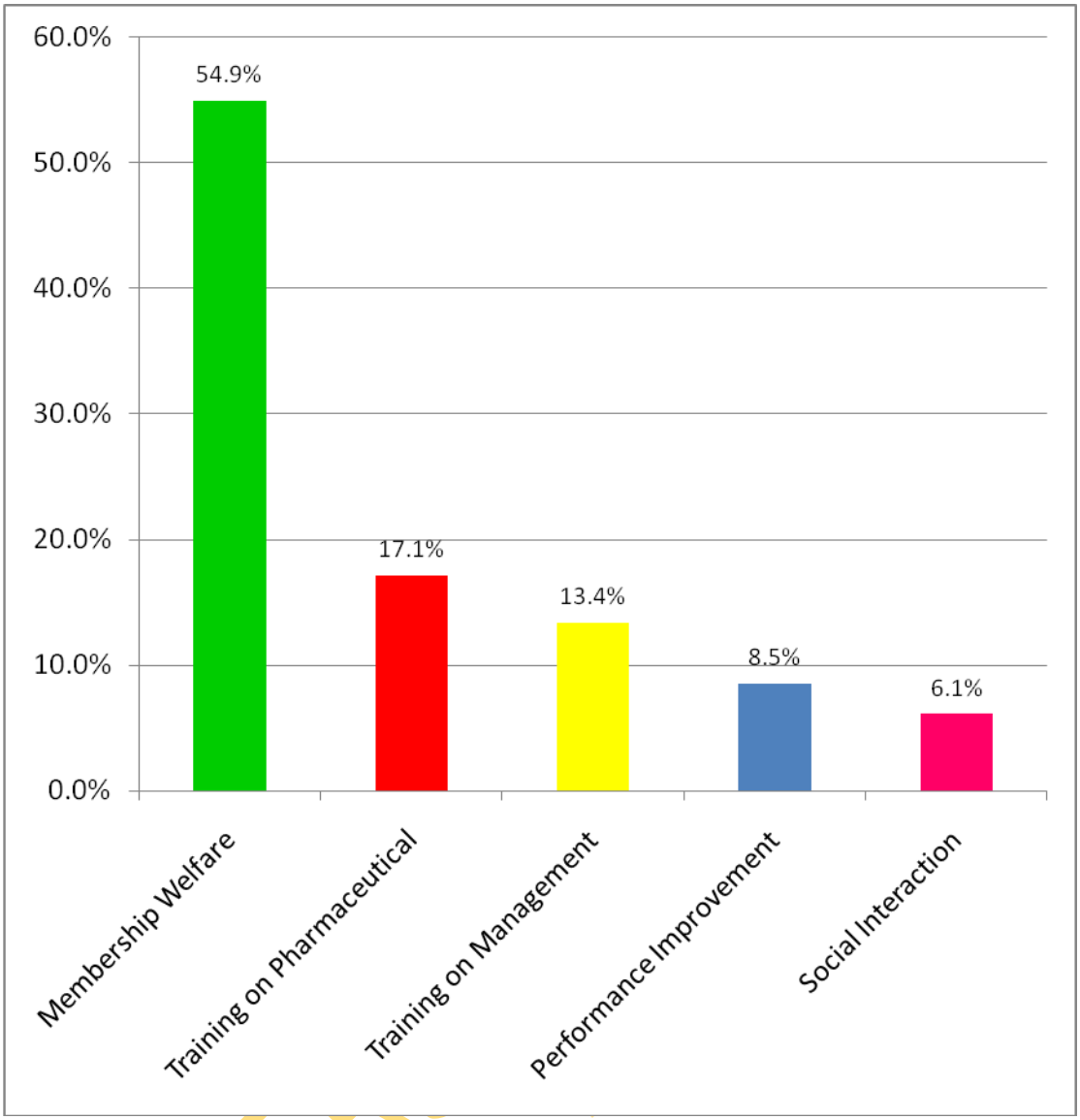

Figure 4.5: Purpose of organising MPM according to respondents

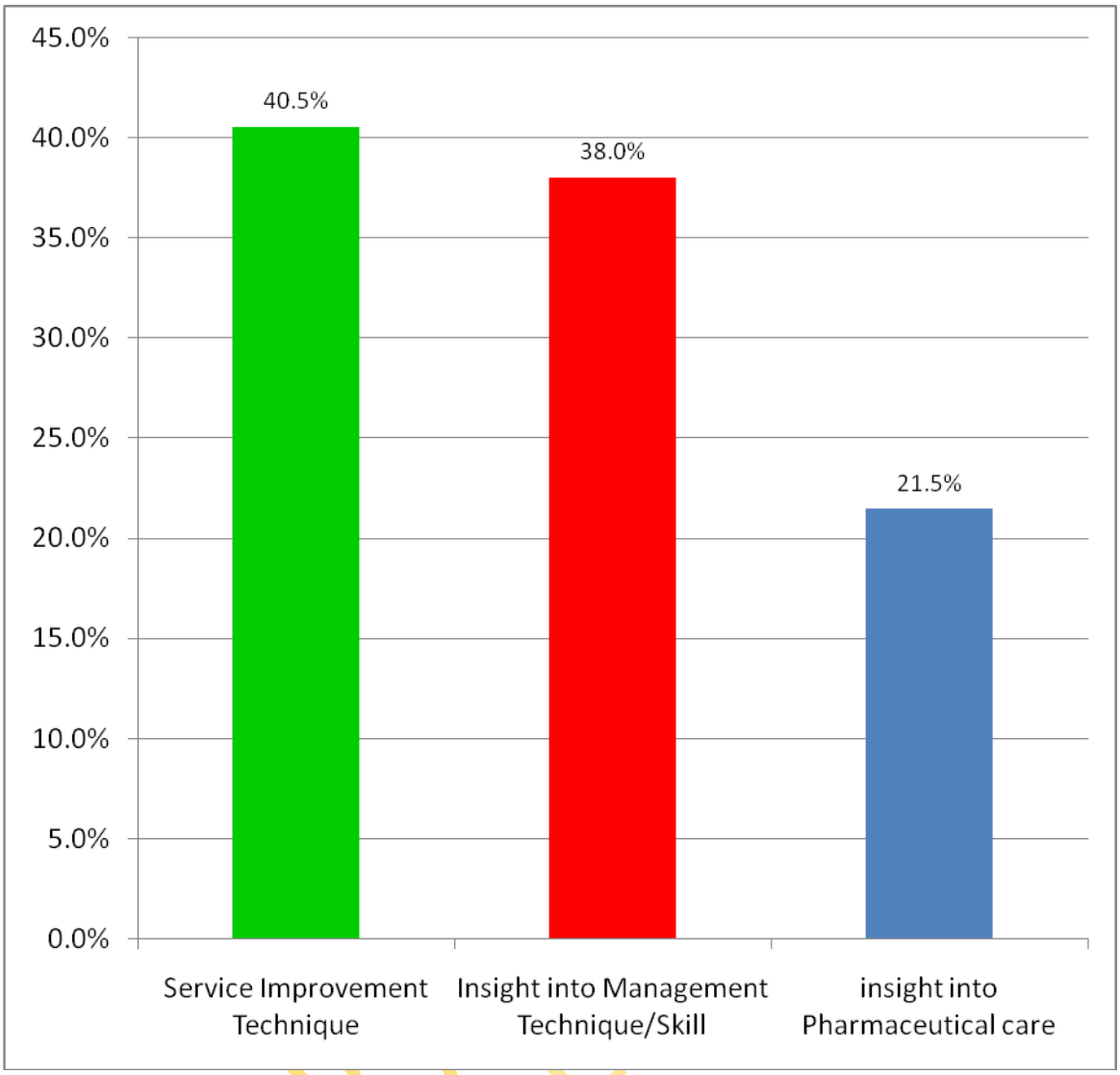

Figure 4.6: Skills gained by respondents from attending MPM

Table 4.7: Attendance of MPM by respondents compared to sector of practice.

Sector of Practice	Attended Meeting		Total
	Yes (%)	No (%)	
Community Pharmacists	45 (43.7)	58 (56.3)	103
Hospital Pharmacists	44 (45.4)	53 (54.6)	97
Total (%)	89 (44.6)	111 (55.4)	200

X^2= 0.056, df =1, p= 0.009

(4.) Self-study through reading

Majority (70.9%) of the pharmacists had practiced reading as self-study in the previous six months while 29.1% had not. Drug reference texts topped the list (27.5%) of materials read followed by professional books (27.2%). Other items read included health articles in popular magazines (23.8%) and professional journals (21.5%) as seen in Figure 4.7.

Various reasons were given for reading. More than half did it to gain more knowledge (50.3%). Some read to assist the discharge of responsibility (31.7%). A few read for personal advancement (10.6%) while others read to prepare for presentation/examination (6.8%) as shown in Table 4.8.

The respondents' engagement in self-study through reading in the past six months was compared with independent variables as hypothesized. No association ($p > 0.05$) was found between age of the respondents and self-study as seen in participation of different age groups. Pharmacists aged 30-39years (76.5% of 102), 40-49years (75.4% of 65) and 50years above (78.3% of 23) were equally likely to have practised self-study.

Considering the town of practice of the respondents in respect to engagement in self-study, there was no association ($p > 0.05$) between the town of practice and engagement in self-study as 81.0% of 100 pharmacists in Abeokuta and 73.0% of 100 pharmacists in Ibadan was equally likely to have practised self-study. Also there was no association ($p > 0.05$) between area of practice and engagement in self-study as 82.5% of 103 community pharmacists and 71.1% of 97 hospital pharmacists was equally likely to have engaged in self-study activities.

There was significant association ($p < 0.005$) between sex and engagement in self-study as evidence from males (80.8% of 125) and females (70.7% of 75) that have practised self-study in the past six months. This is shown in Table 4.9.

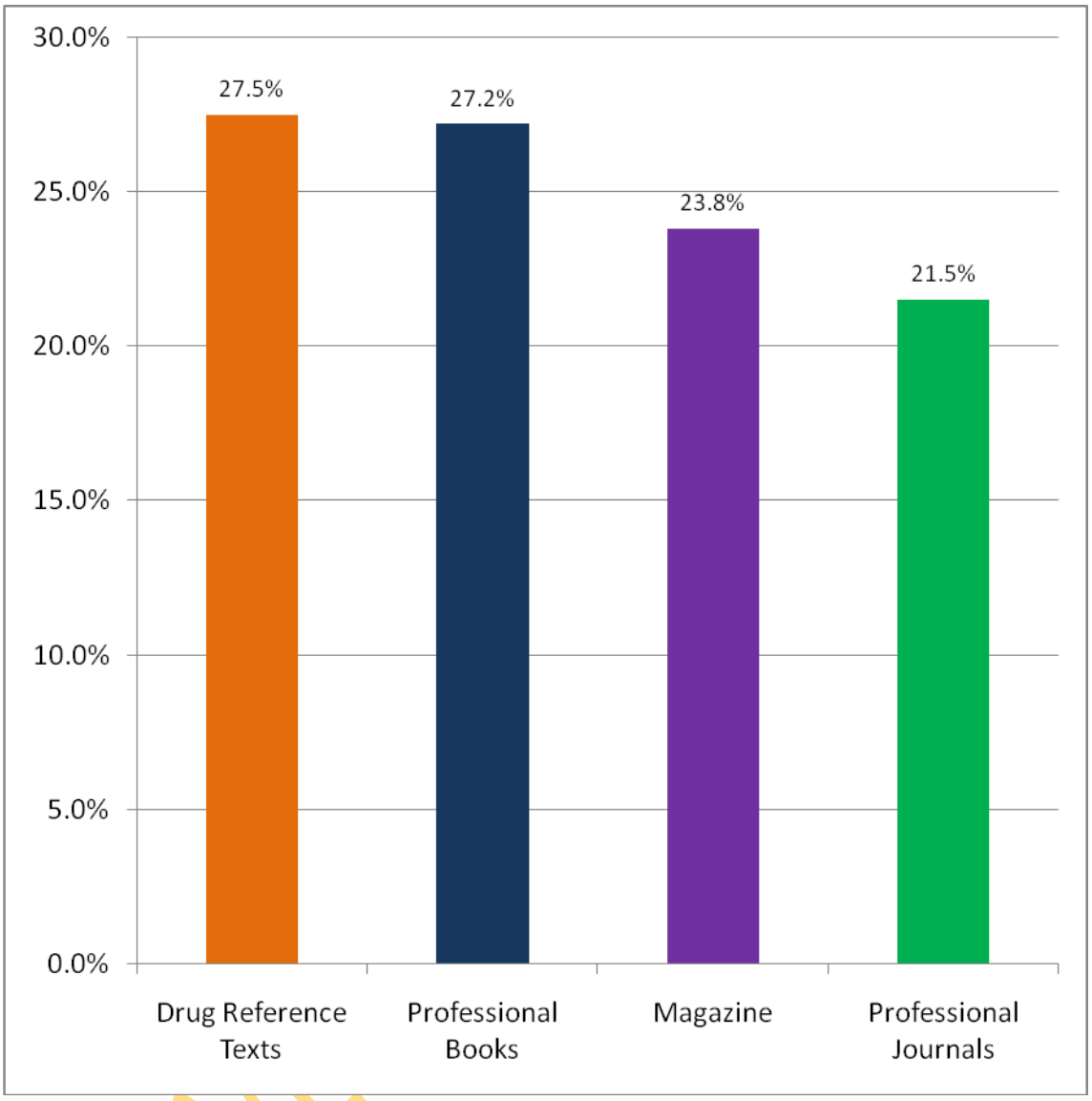

Figure 4.7: Self-study activities practised by respondents

Table 4.8: Respondents' Reasons for reading as CE

Reasons	No	%
To upgrade knowledge	81	50.3
To assist in discharge of responsibility	51	31.7
For personal advancement	17	10.6
For the purpose of presentation/examination	11	6.8
Registration purpose	1	0.6
Total	161	100

Table 4.9: Practice of Self-study in the past six months compared to sex of respondents.

Sex	Self-Study /Reading		Total
	Yes	No	
Male	101 (80.8)	24 (19.2)	125
Female	53 (70.7)	22 (29.3)	75
Total (%)	154 (75.8)	46 (24.2)	200

X^2= 5.36, df =1, p= 0.02

Postgraduate study

This is considered as a separate form of self-study. With regard to acquisition of additional qualification after the Bachelor of Pharmacy degree, only forty-two percent had obtained other qualifications while more than half (58.0%) have not. The additional qualifications of respondents' ranges from masters' degree (83.3%), professional certificate (9.5%) and diploma certificate (7.2%).

The inability to pursue additional qualification according to the respondents was attributed to non-availability of time (27.3%), lack of fund (20.8%), too busy to attend (20.1%) and already possess a postgraduate degree (18.2%). A few (13.6%) said that facilities for such courses too far as shown in Table 4.10.

Table 4.10: Respondents' Reasons for inability to pursue Postgraduate programme

Reasons	No	%
Lack of time	42	27.3
Lack of funds	32	20.8
Too busy to attend	31	20.1
Possession of a postgraduate degree	28	18.2
Facilities for course too far	21	13.6
Total	154	100

N.B: Multiple responses included.

Attitudes, interest and desire about CE

Almost all (94.0%) of the respondents indicated that they would like to go for CE. The main reasons for negative answers were high fee for the in-service courses and non-relevance of some courses to area of practice. The main, among multiple reasons for wanting to attend CE programme was "to update knowledge" (59.7%) while others said for career advancement (26.3%). A few (13.2%) mentioned improvement of expertise and one respondent (0.8%) said networking as shown in Figure 4.8.

When specifically asked which CE programme they preferred, the choice of CE preference was as follows: conferences (62.5%), postgraduate (61.0%), MCPD (54.0%) and IST (47.5%) as shown in Table 4.11. The factors considered by respondents in arriving at the above preferences included duration of the course, relevance of the course to their area of practice, cost of the course and convenience.

Table 4.12 shows the place of choice for CE venue with more than half of 188 respondents who wanted the training, wished for future CE to take place within their state of practice (62.0%) while 9.6% specifically stated it should take place outside the state. A few (27.8%) did not care where the CE hold while 6.4% did not mention their preference. However, one person (0.6%) wished it hold outside Nigeria.

Attempt was made to find out opinions of the respondents on the possible benefits of CE. Majority (75%) was able to list at least one benefit of CE while a quarter could not. This is in contrary to attendance of many CE activities by the respondents. It might then indicate that some respondents attend CE programmes without gaining from their participation. This conforms with the view of Rockhill (1981) that many professionals are attending workshops but not necessarily absorbing new information from them. Another reason might be that since promotion in most cases is not tied to attendance of CE, some respondents don't see any benefit from CE since it does not guarantee promotion. A multiple of responses were given as shown in Figure 4.9. Gain in knowledge was the most common benefit mentioned (97.0%). Majority (75.2%) believed that CE ensures currency with changing clinical trends while many (61.5%) thought CE would make the pharmacist more skilful and adaptable. Some thought CE would increase the self-worth/confidence of the pharmacists (54.4%), or improve the quality of pharmaceutical care delivery (42.0%). Others said CE would accord the pharmacist more respect and recognition (30.8%) or promote networking among colleagues (13.0%).

When asked directly, most pharmacists (78.2%) agreed that CE could enhance advancement, but their explanations of how this worked varied, with some (31.8%) of the 129 who initially said CE could help, not being able to supply a reason. More than a quarter (27.3%) said CE leads to increased competence while 25.0% said it ensures better service delivery. Some (14.8%) believed that CE increased job opportunities, 12.5% said CE gives participant an edge over others while 10.2% opined that it guarantee promotion as well as brings honour/reward to the participants as shown in Figure 4.10.

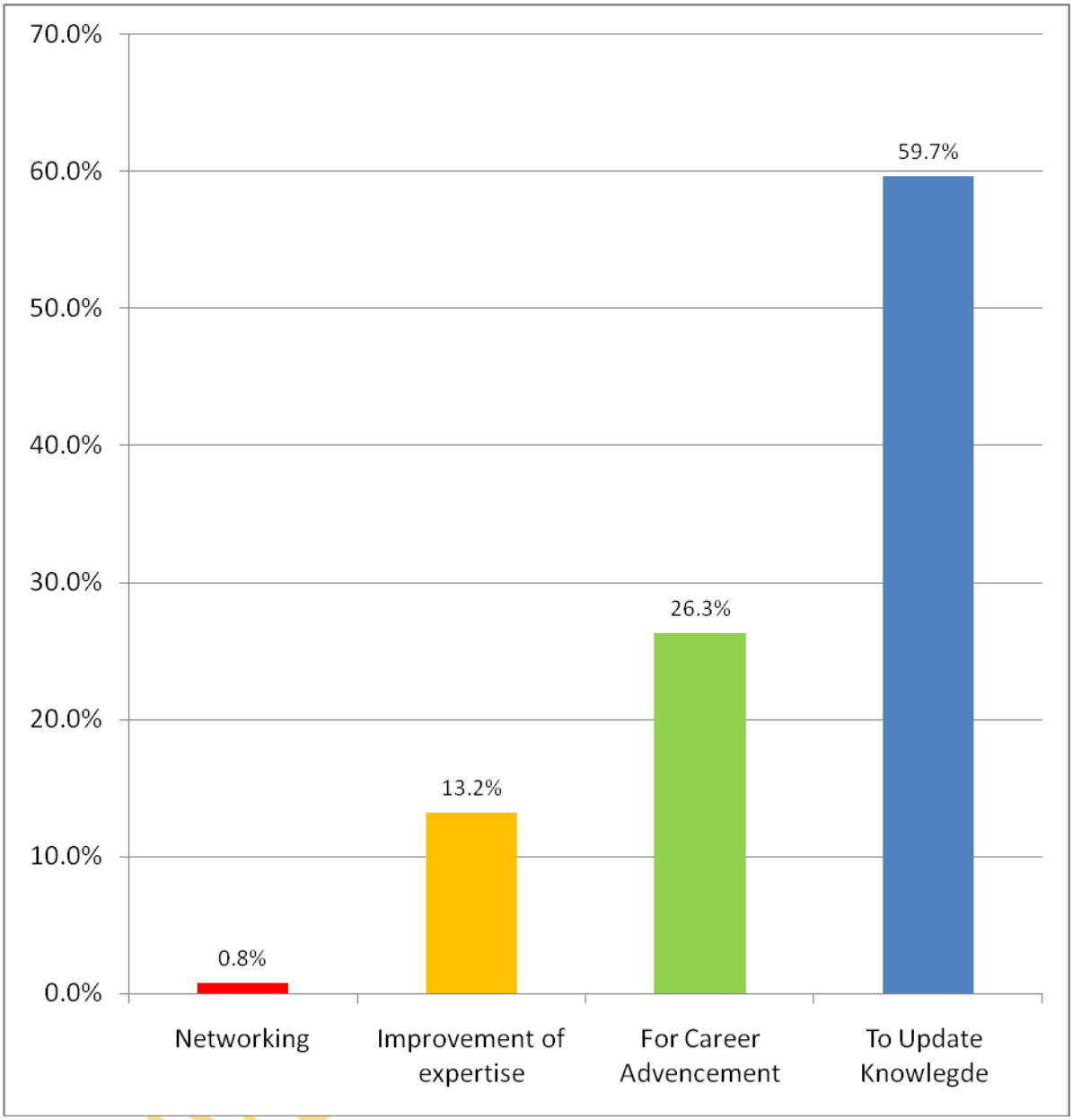

Figure 4.8: Respondents' Reasons for interest in CE

Table 4.11: Respondents' types of CE preference (N=200)

CE Preference	Number of respondents (%)
Conferences	125 (62.5)
Postgraduate	122 (61.0)
MCPD	108 (54.0)
IST	95 (47.5)

N.B: Multiple responses included.

Table 4.12: Respondents' Place of preference for CE venue

Place of preference for CE venue	No	%
Within the state	109	62.0
Anywhere	49	27.8
Outside the state	17	9.6
Outside Nigeria	1	0.6
Total	176	100

N.B: Multiple responses included.

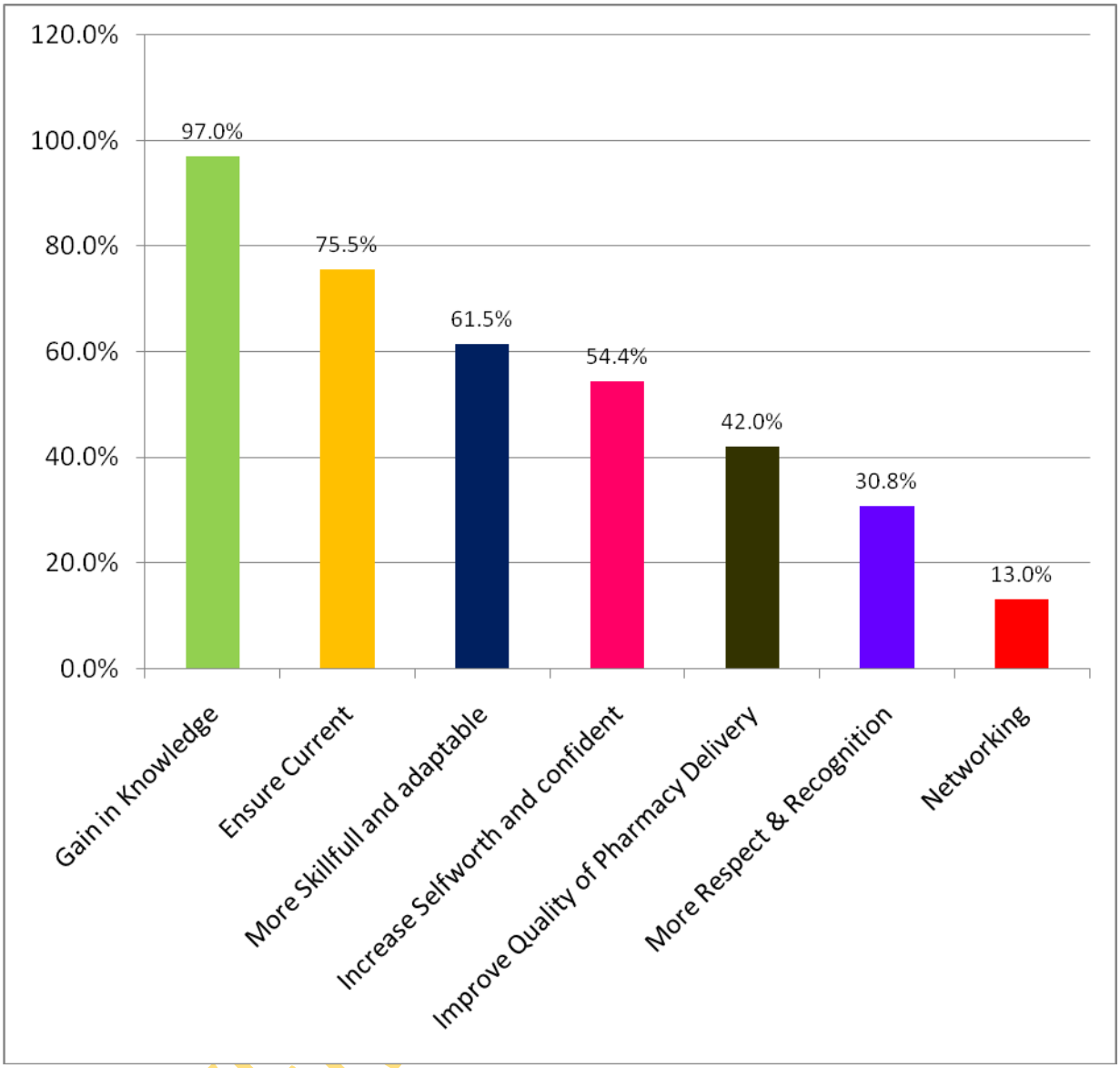

Figure 4.9: Respondents' Perceived benefits of CE

N.B: Multiple responses included.

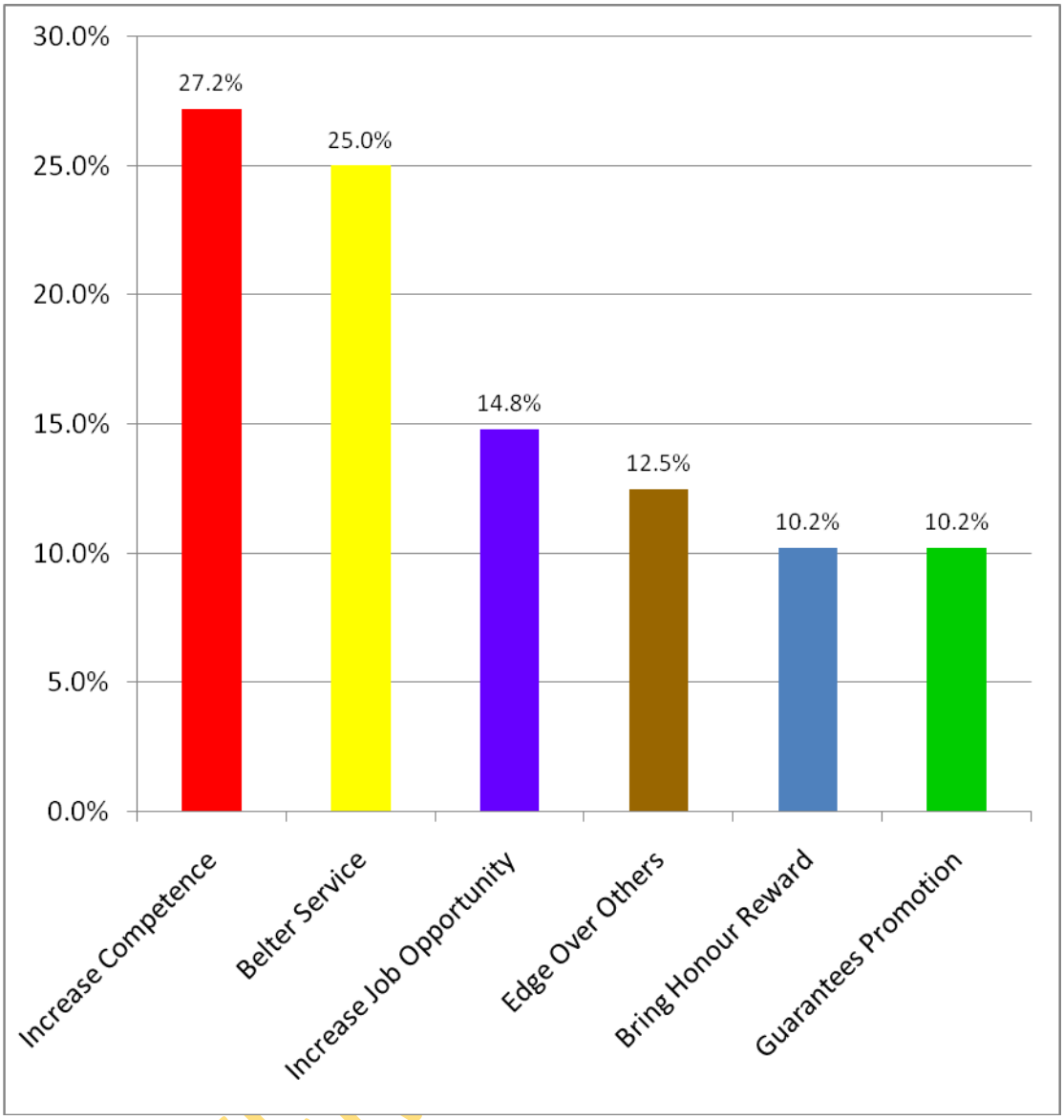

Figure 4.10: How CE enhances advancement of respondents.

Frequency of participation in CE activities

The response of respondents to factors that may further encourage their participation in future CE revealed the following. More than half (55.0%) mentioned easier access to resources while 54.5% stated time/support from employers as important factors. Some (34.5%) mentioned further training on the concept of CE as factor that can encourage participation. Others (31.5%) stated financial reward and local facilitation (30.0%) as motivating factors as shown in Table 4.13.

The respondents were asked how often they felt that pharmacists should engage in CE activities. More than a quarter (33.2%) said these should be annual events while 25.4% said it should be as often as possible. Other responses included twice in a year (19.3%), every two years (11.6%), once in three months (10.5%). The remainder did not offer a suggestion. This is shown in Table 4.14.

Attempt to find out the reasons and factors that determined the suggested frequency of CE activities revealed that the frequently changing clinical conditions/needs, convenience, the need for enough time to work and apply what was learned before participating in another CE activities, availability of time and resources as well as planning logistics were considered.

Table 4.13: Factors that will encourage respondents' participation in CE

Factors that will encourage participation in CE	Number of respondents (%)	
Easier access to resources	110	(55.0)
Time/support from employers	109	(54.5)
Further training on the concept of CE	69	(34.5)
Financial reward	63	(31.5)
Local facilitation	60	(30.0)

N.B: Multiple responses included.

Table 4.14: Respondents' Interval for participation in CE activities

Time interval	No	%
Once in a year	60	33.2
As often as possible/required	46	25.4
Twice in a year	35	19.3
Every two years	21	11.6
Every three months	19	10.5
Total	181	100

Test of hypotheses

The following part is devoted to the test of the study hypotheses proposed at the beginning of the research. The participation and interest of the respondents in CE activities was tested against variables such as sex, age, years of practice, sector of practice, and location of practice,

Hypothesis 1 states that "there is no significant association between the sex and participation of respondents in CE activities". It was observed that there was no significant difference between male and female participation in IST, attendance of MCPD as well as attendance of MPM. However, there was significant difference between gender and the practice of self-study as more male than female engaged in self-study ($p=0.02$), therefore the null hypothesis is rejected. This is shown in Table 4.15.

Hypothesis 2 was between age and participation in CE activities. It states that "there is no significant association between age of pharmacist and involvement in CE activities". The study revealed no significant relationship between the age of respondents and participation in CE activities as similar results was obtained for the different age's participation in IST, attendance of MCPD, MPM and engagement in self-study. Therefore the null hypothesis is accepted. The detail result is presented in Table 4.16.

For hypothesis 3, "there is no significant association between years of practice and respondents participation in CE activities". It was revealed that the respondents irrespective of their years of practice are likely to participate in CE activities.

The fourth hypothesis states that "there is no significant association between sector of practice and participation in CE activities". The results showed that there was no significant relationship between the sector of practice and the participation of the respondents in IST, attendance of MCPD and engagement in self-study. However, there was significant difference between sector of practice and attendance of MPM as more hospital pharmacists than community pharmacists attended MPM ($p=0.009$). The null hypothesis is thus rejected. The detail is presented in Table 4.17.

The fifty hypothesis states that "there is no significant association between location of practice and respondents' participation in CE activities". From the study, respondents in both locations have equal access to CE activities. There was no significant relationship between the location of practice and the participation of respondents in IST, attendance of MCPD, engagement in self-study and attendance of MPM. Therefore the null hypothesis is accepted. The detail is presented in Table 4.18.

Table 4.15: Participation in CE compared to gender of the respondents

CE activities	Sex		*P value*
	Male (%)	**Female** (%)	
IST Yes No	103 (82.4) 22 (17.6)	63 (84.0) 12 (16.0)	0.76
Total	125	75	
MCPD Yes No	100 (80.0) 25 (20.0)	61 (81.3) 14 (18.7)	0.82
Total	125	75	
MPM Yes No	52 (41.6) 73 (58.4)	37 (49.3) 38 (51.7)	0.29
Total	125	75	
Self-study Yes No	101 (80.8) 24 (19.2)	53 (70.6) 22 (29.4)	0.02
Total	125	75	

Table 4.16: Participation in CE compared to age of the respondents

CE activities	Age (years)			*P value*
	30-39 (%)	40-49 (%)	50 above (%)	
IST				
Yes	83 (81.0)	53 (81.5)	21 (91.3)	
No	19 (19.0)	12 (18.5)	2 (8.7)	0.50
Total	102	65	23	
MCPD				
Yes	83 (81.0)	58 (89.2)	14 (60.9)	
No	19 (19.0)	7 (10.8)	9 (39.1)	0.11
Total	102	65	23	
MPM				
Yes	41 (40.2)	35 (53.9)	8 (34.8)	
No	61 (59.8)	30 (46.1)	15 (65.2)	0.14
Total	102	65	23	
Self-study				
Yes	78 (76.5)	49 (75.4)	18 (78.3)	
No	24 (23.5)	51 (24.6)	5 (21.6)	0.00
Total	102	65	23	

Table 4.17: Participation in CE compared to sector of practice of the respondents

CE activities	Sector of practice		*P value*
	Community (%)	**Hospital** (%)	
IST			
Yes	90 (87.4)	76 (78.4)	0.09
No	13 (12.6)	21 (21.6)	
Total	103	97	
MCPD			
Yes	85 (82.5)	76 (78.4)	0.46
No	18 (17.5)	21 (21.6)	
Total	103	97	
MPM			
Yes	45 (43.7)	44 (45.4)	0.009
No	58 (56.3)	53 (54.6)	
Total	103	97	
Self-study			
Yes	85 (82.5)	69 (71.1)	0.06
No	18 (18.5)	28 (28.9)	
Total	103	97	

Table 4.18: Participation in CE compared to location of practice of the respondents

CE activities	Location of practice		*P value*
	Abeokuta (%)	**Ibadan** (%)	
IST			
Yes	87 (87.0)	79 (79.0)	
No	13 (13.0)	21 (21.0)	0.13
Total	100	100	
MCPD			
Yes	76 (76.0)	85 (85.0)	
No	24 (24.0)	15 (15.0)	0.10
Total	100	100	
MPM			
Yes	48 (48.0)	41 (41.0)	
No	52 (52.0)	59 (59.0)	0.30
Total	100	100	
Self-study			
Yes	81 (81.0)	73 (73.0)	0.18
No	19 (19.0)	27 (27.0)	
Total	125	75	

CHAPTER FIVE

DISCUSSION

This study was aimed at documenting the CE experiences of pharmacists in the two towns in Nigeria, with four identified forms of CE, as well as determining their desire for participation in future CE activities. The implications of results obtained are discussed in this chapter along with recommendations for more meaningful involvement of pharmacists in the CE process so as to enhance the pharmaceutical service delivery and their relevance in the health team.

Socio-demographic information

Age was a widely varying characteristic among the pharmacists, ranging from 28 to 62 years. From the study, those attending IST were on average older. This might be because attendance of IST in many establishments was based on years of service and grade level. Though, some might say that younger pharmacists are still fresh from basic study and retain more knowledge. However, Wood (1983) had warned that continuous ignorance sets in right from the moment of graduation. However, younger pharmacists (aged 30-39years) attended more MPM than those that are older. This could be explained from the fact that young people engage in networking than older ones and MPM provides the platform for such interaction.

It was also revealed from the study that pharmacists aged 30-39years engaged in postgraduate studies and practice of self-reading than older pharmacists. This shows a greater self-motivation for the former age group. This conforms to Abdullahi and Besrat (1999) report that younger health workers in Eritrea engaged more in CE than their older colleagues.

Especially for those in government establishments and hospitals, reward for past performance should not be a major reason for selecting staff for IST as recommended by Lynton and Pareck (1978). In essence, all staff, regardless of age, is likely to need updating, and all should have equal opportunity for additional training.

It was revealed from this study that women appeared to have equal opportunities to practice as pharmacists in the two towns. It was also interesting to note that female

pharmacists also have equal opportunity as their male colleagues to participate in IST. It was also observed that sex has no effect on pharmacists' attendance of MCPE, MPM and postgraduate courses in the two states. The only area of CE where women lack behind is self-study. This might be explained by the fact that working women in Nigeria almost always carry the burden of housewife along with their formal job. This denies them the leisure time to read. This was in line with Onuoha (1991) result in the CE activities of health workers in Ibadan.

From the result of this study, year of graduation has little effect on the participation of pharmacists in CE activities. It was revealed that pharmacists that graduated between year 1991 and 2000, attended more MCPE and engaged in postgraduate courses than those that graduated at other period of time. However, those that graduated between year 2000 and 2009 attended more MPM than others. This revelation may be explained from the point that these categories of pharmacists just graduated and might be looking for jobs or in the process of changing work. They therefore see MPM as avenue for getting information on job vacancies as well as networking with older colleagues for mentoring.

The study also showed a significant impact of sector of practice on the participation of pharmacists in CE activities. Though pharmacists in both community and hospital sectors showed similar attendance of MCPD, participation in IST and engagement in postgraduate studies. However, revelation from the study was the fact that hospital pharmacists attended MPM than their counterparts in the community practice. This could be explained by considering the schedule of work obtainable in the two sectors. Pharmacists that work in the hospitals usually operate with monthly or weekly duty schedule which spells out their time of work. They also in some cases work on shift basis (i.e. can work in morning/afternoon shift or being on call on different days). This affords them the opportunity to plan their time to fit into the monthly meeting time. However, in the case of community pharmacists, they work from morning till evening on daily basis which might make attendance of MPM difficult for them.

It was also revealed that hospital pharmacists engage more in self-study activities than the community pharmacists.

The study revealed that pharmacists in the two cities have similarities in the attendance of MPM as well as engagement in IST. However, pharmacists in Ibadan engaged in more self-study and participation in postgraduate courses than those in Abeokuta. This can be due to the presence of a university in the town of Ibadan that has a

pharmacy school as well as offer postgraduate courses in the field of pharmacy and public health. Also, it was revealed that more pharmacists in Ibadan attended MCPD than those in Abeokuta. The reason for this might be the proximity of MCPD centre to pharmacists in Ibadan because there is a MCPD centre in the University of Ibadan. However, pharmacists in Abeokuta need to travel to other towns to locate a MCPD centre which might be a constraint to their participation in MCPD. This conforms to the revelation from the study when majority of respondents prefer future CE activities to take place within their town of residence.

CE activities and interest of pharmacists

It was revealed that pharmacists in the two towns participate in all the forms of CE activities such as IST, MCPD, MPM and self-study. Majority of the respondents have attended IST in the last two years preceding the study. Most of those were seminars, workshops related to specific topics, changes in drug regimen, health policies and health related issues usually sponsored by their respective establishments or donor agencies. They are aware of the importance of participation in CE activities and danger associated with continuous ignorance (Wood, 1983). This awareness serves as a positive predisposing factor for their participation in CE activities. The year of experience/graduation play very little effect on participation in CE activities since all the respondents are involved in CE irrespective of year of practice. It was also revealed that there are limited sources of CE programmes that pharmacists can participate in the two cities.

The reasons adduced for their interest in CE were many and include the following; the need to update knowledge; this corresponds with Wetzel study of 2008 which stated that the need to learn something new form the basis for attending CE. This also conforms to Hanson et al (1990) study that revealed that personal desire to learn form a big facilitator for participation in CE. Also mentioned as reasons for participation in CE include the need to gain skills to increase expertise, personal accomplishment, job satisfaction and career advancement as was confirmed by the study of Hanson et al (1990) and McPartland (2000) study that showed that majority of physicians attend CE to remain as professionals.

The need to remain in the register of PCN (registration purpose) is another reason which conforms to studies carried out by McPartland (2000), Hanson et al (1990) which revealed that requirement to maintain professional licensure motivate most health workers

to attend CE and that health workers hardly attend CE if not for relincensure. Need to remain in the PCN register as a reinforcing factor for the respondents to attend CE activities. Another reason from the study for the respondents' participation in CE activities is networking; this is line with Driesen et al (2004) study that revealed that social contact with colleagues serves as a moderate motivating factor for participation in CE. This is also in line with McPartland (2000) study that revealed that health workers say CE help prevent burnout and allow networking with professional colleagues.

The types of CE activities interested in by the pharmacists in the two cities range from highest preference for conferences, postgraduate studies, MCPD and IST. The place of choice for CE activities by the pharmacists in the two cities as revealed by the study shows that majority of them preferred the CE to take place in their respective location of practice. This may be due to the fact that proximity will ensure better participation as pointed out by Marriott, Duncan, and McNamara (2007). Proximity of CE centres will serve as an enabling factor for participation in CE activities.

The respondents also expressed their willingness to participate in future CE activities. However, they want the CE to be of relevance to their sector of practice, so that they can learn functional skills that can be applied directly at duty posts. They specifically want the CE programmes and topics to be based on need assessment of each sector of pharmacy practice. They were of the opinion that CE for pharmacists in Nigeria as presently coordinated does not lay much emphasis on sector of practice which makes it to have little or no impact on their individual practice. Considering the current curriculum of MCPD, many respondents are of the view that though a lot of subjects are covered, specialization should be ensured and entrenched in the modules. The interval of pharmacists' participation in CE activities according to majority of the respondents should be annually. The reason for this include the need for enough time to work and apply what was learnt before participating in another CE activities, planning logistics and need to consider availability of time and resources.

Barriers to participation in CE activities

This study revealed a number of factors that served as hindrances to the pharmacists' participation in CE activities. These factors include the following: lack of provision for CE activities in the workplace. It was revealed that most establishments do not have CE activities schedule for employees and do not allocate space for such in their annual programmes. This makes participation in CE difficult for individual employee that

wants to engage in such. Lack of fund is another barrier revealed by respondents. This conforms to Penz et al (2007) studies that states that barriers to participation in CE by nurses in Canada include financial constraints.

Time constraint, is another barrier highlighted by the respondents; this corresponds with the studies of Driesen et al (2004) which states that most frequently mentioned barriers for participation in CE by community pharmacists in Belgium were lack of time and family constraints. This also agrees with Marriott et al (2007) studies that revealed that barriers to participation in CE identified by pharmacists in Australia included time constraints. It also concurs with Penz, D'Arcy, Stewart and Morgan (2007) studies that revealed time factor as a strong barrier to participation in CE activities.

Scarcities, long distance of CE facilities as well as irrelevancy of courses to practice were also included as barriers to participation in CE activities by the respondents. This conforms to Marriott et al (2007) studies that state that accessibility –in terms of travel and cost, irrelevancy, quality and method of CE delivery are barriers to participation in CE activities as revealed by Australian pharmacists. Driesen et al (2004) study also revealed that distance to the CE classes and uninteresting subjects are big barriers to participation in CE by pharmacists in Belgium.

Busy schedule of work was also stated by the respondents as a barrier to participation in CE activities. This conforms to Takumi et al (2004) study that a particular point of dissatisfaction by Japanese pharmacists concerning CE was that many respondents felt they were too busy to attend lecture meetings.

Motivation for participation in CE activities.

Factors revealed from this study as motivation for participation in CE include the following; easier access to resources for CE, support from employers in terms of time and money as well as financial reward for participation in CE. This corresponds with Driesen et al (2006) study which revealed that pharmacists are willing to invest more time in CE when participation will be rewarded. Respondents also opined that further training on the concept and importance of CE as well as guaranteed promotion on the basis of participation in CE will encourage participation.

It is also worth to note that majority of those that attend professional meetings do not report learning of specific skills or receiving specific new idea. It is therefore incumbent on the organizers of such professional meetings to plan the educational components of such meetings so that in future studies, majority of pharmacists will not

respond, as was the case here, that they learned no new ideas or skills at professional meetings.

The opportunity and the manner of promotion among pharmacists are other areas that this study highlighted. Slightly more than two-fifth of the respondents had never had a promotion, although most had been on the job for more than five years. The promotion reported occurred majorly amongst the pharmacists in the hospitals. Only very few who had attended IST programme reported advancement as a direct result of attending a course. This finding was in line with respondents' perceptions that one of the main benefits of CE should be promotion and conforms to Pearson's (1990) view that training provides opportunities for advancement. Such opportunities boost the morale and productivity of workers (ASTD, 1976), and should be given greater consideration by different establishments and employers of pharmacists.

From the findings, all the CE activities covered in this study do occur in the two towns, their implementation appears to be haphazard, with many missed opportunities.

Professional associations' meeting are important management as well as educational tools (Amonoo-Lartson, et al, 1984). Although most authors recommend regular meetings, AMREF (1983) goes as far as to recommend weekly meetings. The PSN may not be able to gather all pharmacists in each state on a weekly basis, but if each technical arm within the states were functioning, weekly meetings might also be possible within these smaller units.

Unfortunately less than half of the pharmacists reported attending a professional meeting in the previous months, and even then, the agenda rarely included CE. The welfare of the members and progress of the profession were mostly the issues on discussion with little or no attention to CE benefits. Meetings are a relatively inexpensive way to deliver CE because they offer the possibility of sharing, that is, the opportunity for pharmacists to learn from each other. (AMREF, 1983).

CONCLUSION

CE has been variously defined and explained in this study to encompass different forms of up-date and refresher programmes for pharmacists. It has been recommended as the prevention and cure for "continuing ignorance", which affects all pharmacists. The major finding was that participation in the four CE activities under study; in-service training, self study, MCPD and professional meetings was high.

Since pharmacists regularly encounter real life instances in which agonizing choices between different courses of action have to be made, serious ethical dilemmas are experienced, the neat prescription of textbooks and case histories are inappropriate and contextual factors such as personality, political climate or budgetary change significantly alter practice. In staff development exercises for such group, it is much more meaningful to build curricula and organize workshops that take these experiences as their starting point, engage participants in a collaborative analysis and exploration of experiences and encourage professionals to reflect continually on their interpretation of correct practice in actual work settings.

In concluding the study, the findings can be explained using the chosen conceptual theory of precede-proceed model. It was shown that all the three factors (predisposing, enabling and reinforcing) have effects on the pharmacists' participation in CE. To also achieve improvement in the CE activities, these factors need adjustments. The main predisposing factors to the pharmacists from the study was the awareness of constant change in the field of health; need to be current and respondents' broad self-perception as lifelong learners. These serve as motivating factors for them to engage in CE activities. The enabling factors from this study include support from employers in terms of fund, time, more centres that offer CE in the two cities and cost of the CE programmes. If these factors are well addressed, improvement and greater participation in CE is guaranteed. Also, the reinforcing factors as revealed from the study include reward for participation in CE activities, CE as requirement for registration and CE leading to professional advancement. If these feedbacks are positive, then greater and improved participation of pharmacists in CE activities will be achieved.

Also, the study identified an overwhelming desire by pharmacists for more CE opportunities. It is hoped that the result will stimulate action by all health authorities, private and public, in the two cities to take prompt and thorough action to redress the inadequacies of CE programming and in the process better equip the pharmacists to meet the challenges in their practice.

RECOMMENDATIONS

It is healthy to note that participation in CE as well as the readiness to partake in future CE activities was high among the respondents in spite of the barriers. They have expressed the need for IST both on specific work-related topics as well as for advanced professional courses that would enhance competence and promotion. They are realistic in

their expectations that shorter courses should occur approximately yearly while longer programmes should be scheduled at wider intervals. Having considered those pharmacists' concerns and desires and analysed their past experiences, the researcher offers several recommendations for improving CE in the study area.

1. Training committee

Training committee is needed in each state. The committee should be the initiative of the PSN in each state with the involvement of the technical arms (ACPN, NAHAP) of the PSN. This committee should identify the training needs of pharmacists by considering any particular challenges or problems facing the pharmacists in the state and draw up an annual schedule for CE activities within the state as well as coordinate participation in CE activities offered by various states, federal or donor agencies. The training committee could also facilitate the establishment of more CE centres within the state. This committee will serve as local facilitator for CE programmes that are in line with the members need. If possible, the cost of attending the minimum required CE should be included in the annual registration dues paid by pharmacists.

2. Collaboration between the Regulatory and Professional Bodies

Unlike what exists in developed countries, it is observed that in Nigeria, the professional body of pharmacists, PSN, does not play any specific role in the planning as well as execution of MCPD. The planning and conduct of MCPD is left in the hand of the government regulatory agency, PCN, whose concern in most cases is generating fund to the government. PSN should collaborate with the PCN by establishing a joint committee for designing the curriculum based on the actual educational needs of the pharmacists.

3. Segmentation of MCPD

The area of practice of pharmacy should determine the design and conduct of MCPD for practitioners in each sector. This is because the experience and needs of pharmacists vary depending on the sector of practice. It is being proposed that different MCPD should be organized based on sector of practice rather than the current practice where all pharmacists participate in the same module of MCPD. This will ensure relevance of the courses to their area of practice which will further guarantee improved competence.

4. Professional meetings

The organizers of professional meetings, be it PSN, ACPN or NAHAP, should have an education committee that will plan and ensure that learning and transfer of functional knowledge is an integral part of any meeting. This can be done by inviting qualified resource persons to monthly meeting to address pharmacists on current trends in pharmacy or other areas of interest. Pharmaceutical companies or representatives of multinationals can also be given opportunity to enlighten pharmacists on their products during monthly meetings. In essence, each meeting should have an educational component that will serve as CE for pharmacists. Attendance of these meetings should earn pharmacists some CE points and can be part of criteria for re-licensing.

5. Networking among pharmacists

The importance of networking amongst pharmacists is not yet utilized by pharmacists in the two states. Information dissemination and sharing among colleagues should be encouraged by the professional bodies since no individual can obtain all he/she needs alone. Sharing of professional books among colleagues should be encouraged. Pharmacists working in the same community should be encouraged to form study groups to ensure individual participation in CE.

6. Establishment of more CE centres

Centres that offer CE programmes for pharmacists in the two states are scanty. It was even observed that the University of Ibadan and Olabisi Onabanjo University (the two universities with school of pharmacy in the study area) do not have CE programme/centre for pharmacists. For pharmacists to get the required CE in these states, availability of CE centres is germane. Also the CE programmes should be well designed in a way that both the recipient and the provider have considerable input into the content and format of the programme.

7. Advocacy to employers

Advocacy visits to employers of pharmacists on the need to support their employees on their participation in CE activities should be embarked on by the professional bodies. The need for employers to put in place incentive package and regular promotion to motivate their employees to participate in CE should be encouraged. Allocation of time for employees to participate in CE should be solicited for from the employers.

8. Mini Libraries

Since many pharmacists attend MPM and go to their associations' secretariats from time to time, the societies should equip their secretariats with books that members can borrow to read. These might be essential books that are either very expensive or scarce to get.

IMPLICATIONS OF THE STUDY

Having analysed the views and interest of pharmacists concerning CE in the two cities, the results of this study is of benefits to the pharmacists, professional bodies, regulatory agencies as well as policy makers in the following ways. This research has provided information on the types of CE carried out by pharmacists and their reasons for participation as well as barriers and challenges they face. Thus in planning of CE for pharmacists, consideration for these factors will facilitate participation and improve learning.

The researcher intends to make the findings of the study available to all the stakeholders in the practice of pharmacy in Nigeria. He plans to present the findings at state monthly meetings and annual conferences of ACPN, NAHAP and PSN. The findings will also be presented to PCN, donor agencies and other relevant bodies involve in the planning and implementation of CE for pharmacists.

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APPENDIX 1

QUESTIONNAIRE **Serial No:**

CONTINUING EDUCATION NEEDS AND INTERESTS OF PHARMACISTS IN IBADAN AND ABEOKUTA, NIGERIA.

Dear Respondents,

I am **Pharm Hassan Sulaiman**, a postgraduate student in the Faculty of Public Health, College of Medicine, University of Ibadan. This questionnaire is aimed at finding out the continuing education needs and interests of Pharmacists. Please answer the questions as honestly as possible. Your responses shall be used for statistical analysis only and shall be treated with utmost confidentiality. Your participation in this study is voluntary.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1) Sex [ ] Male [ ] Female

2) Age in years (as at last birthday) ……

3) Marital Status ……

4) Religion ……..

5) Which year did you graduate as a Pharmacist? ……

6) Any other professional qualification and year of qualification

Qualification	Date
……..	……
……..	……

7) Which area of pharmacy practice are you?

[ ] Hospital/clinic

[ ] Community pharmacy: [ ] Retail [ ] Wholesales

[ ] Industry

[ ] Academics

If in community practice, go to question 8 / if not, go to question 9.

8) If you are in Community practice, are you currently

[ ] an employee [ ] a locum [ ] the owner of the pharmacy

9) Town of practice…….

10) Position first held after service (NYSC) ……..

11) Position currently held ……

12) Year of last promotion ……

13) How many hours do you work on average per day? ……

SECTION B: HISTORY OF CONTINUING EDUCATION

14) Have you had in-service training (course/programme/workshop) since you are employed in your workplace?

[ ] Yes [ ] No [ ] Not certain

If 'no', go to question 16.

15) If 'yes' to question 14, please tick the one(s) applicable:

[ ] Seminar on management of diseases

[ ] Management/Administrative training

[ ] Non Governmental Organization's (NGO) organized training

[ ] Unit Dose Dispensing system

[ ] Current Anti-malarial policy

[ ] Others (specify) ……..

16) If 'no' to question 14, what is/are the reason(s)? (Tick all that apply)

[ ] No provision for such in my establishment

[ ] Too busy to attend

[ ] No facility for such in my environment

[ ] Schedule time is not convenient

[ ] Lack of fund

[ ] Others (specify) ……

17) Is there any provision for short professional courses in your work place?

[ ] Yes [ ] No [ ] Not certain

18) Did you undergo any short professional course/mandatory continuing pharmacy education in the past one year?

[ ] Yes [ ] No [ ] Not certain

If 'yes', go to question 20.

19) If 'no' to question 18, what is/are the reason(s)? (You may tick more than one)

[ ] Lack of fund

[ ] Too busy to attend

[ ] Venue for such courses too far

[ ] Scarcity of courses

[ ] Non availability of time

[ ] Previous non-satisfactory experience

[ ] Others (specify) ……..

20) If 'yes' to question 18,

a. How many times (within the past one year)? ……..

b. When was the last course? ……

c. Did you learn anything to keep your professional skill up-to-date?

[ ] Yes [ ] No [ ] Not certain

d. If 'yes', what did you learn from the last course?

[ ] Recent advances in therapeutics

[ ] Disease management

[ ] Current trends in pharmacy practice

[ ] Exposure to consultancy services

[ ] Management/Administrative training

[ ] Others (specify) ……..

21) For what reason(s) do you attend these courses or workshops? (You may tick more than one box)

[ ] To upgrade my knowledge

[ ] For registration purpose

[ ] I enjoy networking with other pharmacists

[ ] My office/boss sponsored the course

[ ] The guest speakers are good

[ ] The venue is close to my place of work

[ ] Other (please specify) …….

22) Do you have a regular staff meeting?

[ ] Yes [ ] No [ ] Not certain

If 'no', go to question 24.

23) If 'yes',

a. When did you last attend? ……..

b. What was the purpose/reason for the meeting? ……..

c. What specific new ideas/skills were passed on to you when you last attended a staff meeting? …….

24) Have you read any of the following to improve your technical skills for your job in the past six months?

	Yes	No	Not certain
Professional Book			
Journal			
Drug reference			
Magazine			

If 'no', go to question 26.

25) If 'yes' to any of the above in question 24:

a. what did you read about? ……

b. Why did you read this/these? …….

26) Did you undergo any postgraduate course in the last two years?

[ ] Yes [ ] No [ ] Not certain

If 'no', go to question 28

27) If 'yes' to question 26:

a. What course did you undergo? ……..

b. When was the last course? ……

c. Did you learn anything to keep your professional skill up-to-date?

[ ] Yes [ ] No [ ] Not certain

d. If 'yes', what did you learn from the last course?

[ ] Recent advances in therapeutics/ disease management

[ ] Current trends in clinical pharmacy practice

[ ] Exposure to consultancy services

[ ] Patients' counselling guidelines

[ ] Others (specify) ……

28) If 'no' to question 26, what is/are the reason(s)?

[ ] Lack of fund

[ ] Too busy to attend

[ ] Schools/Facilities for such courses too far

[ ] Already posses a postgraduate degree

[ ] Non availability of time

[ ] Others (specify) ……

SECTION C: ATTITUDES, INTERESTS AND DESIRES ABOUT CONTINUING EDUCATION (CE)

29) Would you like to go for continuing education programmes?

[ ] Yes [ ] No [ ] Not certain

If 'no', go to question 32.

30) If 'yes' to question 29, which of the following will you prefer?

CE programmes	**Yes**	**No**
In-service training		
MCPE		
Conferences/Seminar/Workshops		
Postgraduate course		

a. What is/are the reason(s) for your choice? ……

b. What subject would you like covered in the CE programme, and why?

Subject Why

…… ……

…… ……

…… ……

31) Where would you prefer the programme to hold?

[ ] Within the state [ ] Outside the state [ ] Anywhere

32) If 'no' to question 29, what is/are the reason(s)?

……

33) Do you like the job you are currently doing?

[ ] Yes [ ] No [ ] Not certain

34) If 'yes' to question 33, why? ……

If 'no' to question 33, why not? ……..

35) What are the benefits of continuing education?

……..

……..

……..

36) Do you think continuing education can enhance your promotion or advancement?

[ ] Yes [ ] No [ ] Not certain

Explain your answer ……..

37) Which of the following would further encourage you to undertake continuing education?

You may tick more than one box.

[ ] Further training to understand the concept of CE

[ ] Local CE facilitation [ ] Easier access to resources

[ ] Financial reward [ ] Support from employer (e.g. time)

[ ] Other (please specify) ……

38) How often should a Pharmacist receive continuing education courses?

……

39) Why do you choose the period above? ……

Thank you for your time

APPENDIX II

INSTITUTE FOR ADVANCED MEDICAL RESEARCH AND TRAINING (IMRAT)
COLLEGE OF MEDICINE, UNIVERSITY OF IBADAN, IBADAN, NIGERIA.
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DIRECTOR: **Prof. C. A. Adebamowo** *BMChB Hons (Jos), FWACS, FACS, Dsc (Harvard)*

UI/UCH EC Registration Number: **NHREC/05/01/2008a**

NOTICE OF EXPEDITED REVIEW AND APPROVAL

Re: Assessment of Continuing Education Experiences of Pharmacists in Ibadan Oyo State and Abeokuta, Ogun State.

UI/UCH Ethics Committee assigned number: UI/EC/09/0017

Name of Principal Investigator: Sulaiman A. Hassan

Address of Principal Investigator: Department of Health Promotion & Education,
College of Medicine,
University of Ibadan, Ibadan.

Date of receipt of valid application: 10/02/2008

Date of meeting when final determination of research was made: **N/A**

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and *given expedited approval by the UI/UCH Ethics Committee.*

This approval dates from 18/02/2009 to 17/02/2010. If there is delay in starting the research, please inform the UI/UCH Ethics Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the* UI/UCH EC *assigned number and duration of* UI/UCH EC *approval of the study.* In multiyear research, endeavour to submit your annual report to the UI/UCH EC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the UI/UCH EC. *No changes are permitted in the research without prior approval by the* UI/UCH EC *except in circumstances outlined in the Code. The* UI/UCH EC *reserves the right to conduct compliance visit to your research site without previous notification.*

UI/UCH EC
18 FEB 2009
APPROVED
COLLEGE OF MEDICINE

Dr. A. ... Akinpelu,
Chairman, Medical Advisory Committee,
University College Hospital, Ibadan, Nigeria
E-mail: ...uchire@yahoo.com