NURSES' PERCEPTIONS OF CONTINUING PROFESSIONAL DEVELOPMENT IN A PUBLIC HEALTH CARE FACILITY IN KISUMU, KENYA

by

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DECLARATION

I declare that **NURSES' PERCEPTIONS OF CONTINUING PROFESSIONAL DEVELOPMENT IN A PUBLIC HEALTH CARE FACILITY IN KISUMU, KENYA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

_____ _____

SIGNATURE **DATE**

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ABSTRACT

The purpose of this study was to explore the practices, perceptions and needs of nurses in relation to their participation in continuing professional development. A quantitative descriptive study was conducted guided by Knowles' Adult Learning Theory as the conceptual framework. Data collection was done using a structured self-administered questionnaire with a sample of 178 nurses. The findings revealed that the respondents perceived continuing professional development as important. However the study found minimal involvement of nurses during the initial stages of designing continuing professional development programmes and this may lead to incorrect identification of learning needs. Personal, organisational and professional factors were identified as barriers to nurses' participation in continuing professional development. Preparation of nurses in advance and the use of teaching strategies that recognise past experience and adults as resources were found to increase nurses' participation in continuing professional development programmes.

KEY CONCEPTS

Continuing professional development; practice; perception; needs; adult learning; Knowles' Adult Learning Theory.

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Dedication

This study is dedicated with appreciation to all nurses in Kenya whose participation in continuing professional development is geared towards improving the quality of care provided to the patients, client and communities they serve.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CPD	Continuing Professional Development
CME	Continuing Medical Education
ECN	Enrolled Community Nurse
HIV	Human Immuno-deficiency Virus
NCK	Nursing Council of Kenya
RN	Registered nurse
SPSS	Statistical Package for the Social Sciences
UNISA	University of South Africa
USA	United States of America

Chapter 1

Orientation to the study

1.1 INTRODUCTION

Nursing practice has seen increasing and diverse change in the health care environment due to advanced technology, changing patient care needs and rapid obsolescence of acquired knowledge. The increasing change challenges health care delivery systems to provide quality health care that meets the demands of patient, family and society at large (Cooper 2009:502). Nurses therefore need to keep up-to-date with knowledge and skills that will enable them to meet the challenges. This emphasises the necessity for nurses' participation in continuing professional development (CPD) activities in order to effectively deal with patient and care demands.

Professional development refers to a constant commitment to maintain specific skills levels and career progression that ensures that nurses' skills and knowledge are current and relevant for addressing patients' or clients' needs (Cooper 2009:509). In a study on the professional development of nurses on night duty, Mayes and Schott-Baer (2010:17) found that participation in educational programmes and training sessions is critical for keeping nurses' skills updated. Furthermore, nurses are often the first responders to patients' problems and often initiate intervention; for example, during cardiac arrest (Mayes & Schott-Baer 2010:17).

Participation in CPD enables nurses to gain competence in their areas of work leading to accountability to society for an ongoing commitment to remain current and safe to practise in the profession (Cooper 2009:501). Continuous learning helps to reduce gaps between learnt theory and practice, enhances clinical competence and promotes the acquisition of knowledge and skills necessary for continued professional competence and practice (Nalle, Wyatt & Myers 2010:107).

Every nurse is called upon to take responsibility for his or her own personal and professional development. Nurses are required to pledge to lifelong learning of specific skills or broad enhanced career development by enrolling in formal or informal continuing education programmes. Nurses' commitment to professional development enables them to deliver safe, effective and quality health care (Cooper 2009:501).

Nalle et al (2010:107) found that nurses' practice in CPD has continued to gain support by the majority of the state boards responsible for the regulation of nursing in the United States of America (USA). Twenty eight state boards or 56% of all the states in the USA have embraced and recognised CPD as a means of demonstrating professional competence whereby CPD is used during certification and application for renewal of practice licence . In Kenya, the Nursing Council of Kenya (NCK) requires nurses to achieve a minimum of twenty CPD hours per year for re-licensure and maintenance on the nurses' roll (NCK. Guidelines on continuing professional development 2008:1).

Regarding CPD opportunities among health care workers in Ghana, Aiga and Kuroiwa (2006:270) found that the number of CPD opportunities is unequally distributed among health care workers leading to disparities in quality of health care delivery. Aiga and Kuroiwa (2006:279) maintain that for health care workers to be able to provide quality care, the government and other involved stakeholders need to ensure equal distribution of CPD opportunities.

Nalle et al (2010:110) found that 59% of nurses rated continuing education in their current role as "very important" and 29% as "important". Furthermore, 72% of the nurses had participated in 15 or more hours of continuing education programmes in the previous two years. This indicated that the nurses perceived CPD as important for both individual nurses and professional development.

The comprehensive assessment of learners' needs is a key to programme effectiveness that leads to improved professional knowledge, skills and performance (Nalle et al 2010:108). Nurses' CPD needs assessment before CPD programme design further ensures their relevance and effectiveness, and provides the foundation for the development of programme objectives, content and targeted learning activities. Although there are clear professional guidelines for needs assessment as a foundation

for CPD, evidence of needs analysis in the current nursing literature is limited (Nalle et al 2010:108).

Accordingly, the researcher wished to explore the practices, perceptions and needs of nurses in Kenya in relation to their participation in formal and informal CPD in the Kisumu East district of the Nyanza province. Continuing formal CPD includes all post-basic training that leads to enrolment by the NCK, such as certificate in nursing, diploma in nursing and degree in nursing. Informal CPD includes short courses, seminars and workshops that do not warrant being entered in the NCK register but lead to NCK recognised accumulation of CPD points/hours.

1.2 BACKGROUND TO THE PROBLEM

The NCK (Guidelines on continuing professional development. 2008:1), the regulatory body for nursing in Kenya, recognises and appreciates the importance of nurses' participation in CPD as a means of ensuring continued competence and staying current in practice. The NCK (Guidelines on continuing professional development 2008:1), is also committed to strengthening CPD in Kenya. According to the NCK guidelines on CPD, both the employer and the nurse have important roles in ensuring the achievement of professional development through CPD which leads to quality health care. The employer's responsibility is to provide an enabling environment that enhances learning; support nurses, and provide forums for CPD. It is the responsibility of nurses to search for appropriate and available CPD opportunities and ensure participation in continued learning (NCK. Guidelines on continuing professional development.2008:3).

Cooper (2009:502) and Bassendowski and Petrucka (2009:553) state that both individual nurses and the employer have an important responsibility in supporting and enhancing professional development. Cooper (2009:502) is of the opinion that systems, beliefs and values that promote professional development in an organisation need to be created. In the hospital setting professional development should assume a partnership to promote lifelong learning between the institution and the nurses and should be self-motivating, valued and perceived as mutually beneficial to the nurse, the institution and the patient.

The practice of professional development among nurses in Kenya is guided by the NCK. Since June 2008 it has been a requirement for all nurses in Kenya to achieve a minimum of 20 hours of CPD per year to be licensed or to renew their licences of practice with the NCK. Nurses are required to renew their practice licences every three years (NCK. Guidelines on continuing professional development.2008:1).

The NCK Guidelines on continuing professional development.2008:1 is committed to ensuring quality health care and development of nursing as a profession by ensuring provision of quality programmes to which CPD hours are assigned to guide nurses in their quest to care for patients, families and the community.

Nurses in Kenya are able to achieve their CPD requirements through participation in either formal or informal CPD. In formal CPD, nurses enrol in a programme leading to the acquisition of a different level of nursing practice recognised by the NCK. For example, an *enrolled community nurse (ECN)* engaging in a full-time, part-time or distance learning programme may be upgraded to a higher rank such as a *registered nurse (RN).* Nurses also participate in informal CPD that includes short courses, workshops or seminars to improve their levels of knowledge or skills. Nurses themselves have to seek opportunities that enable them to acquire the required CPD hours. In some instances, the health care facility organises for CPD assigned sessions. In most cases, however, nurses' learning needs are not considered when designing and presenting these programmes. CPD assigned programmes are funded by the employer, a training agent or at times by the nurses themselves.

An interview with the nursing officer in charge of education in the selected public health care facility where this study was conducted revealed that the selected hospital had a multi-disciplinary CPD programme in place though there was no written policy on CPD. The Continuing Medical Education Committee (CME) was mandated to oversee the CPD of all professional personnel in the hospital. The nursing, physiotherapy, anaesthesia, pharmacy, radiology, medicine, ophthalmology and information technology departments were represented on the committee. The committee was chaired by a doctor anaesthetist. The CME committee developed an annual CME schedule indicating the topics to be covered by respective wards/units during the monthly multi-disciplinary CME sessions held in the hospital.

1.3 RESEARCH PROBLEM

A research problem is “an issue or concern that puzzles the researcher due to its effect on a particular group of people or its inconsistence despite measures already put in place to address it” (Kombo & Tromp 2006:32). Mbwesa (2006:44) defines a research problem as “an area for which the researcher seeks to find an answer”.

As a clinical nurse instructor, the researcher has coordinated CPD programmes among nurses in a teaching and referral hospital since 2006. This includes organising and facilitating learning sessions identified by the hospital as relevant for the respective wards. The hospital’s CPD programme is based on the NCK’s 2008 CPD guidelines. The implementation of the hospital identified CPD programmes raised the following question for the researcher:

> Is it possible for the hospital to design CPD programmes that address CPD needs identified by nurses themselves?

To answer this question, the researcher realised that it was necessary to identify the current documented CPD practices, perceptions and needs of nurses in Kenya.

1.4 STATEMENT OF THE PROBLEM

Basic nursing education is no longer sufficient for a lifetime nursing career (Sturrock & Lennie 2009:12). Sturrock and Lennie (2009:12) attribute this to the rapid and recurrent changes in the health care sector and nursing practice and add that the life span of knowledge gained in a vocational degree is four years. Thus, one cannot overemphasise the importance of nurses participating in CPD programmes which ensure that health care professionals including nurses remain competent in relation to safe and effective nursing practice. Furthermore, education and improving skills through learning which addresses patients’, families’ and the community’s health care needs ensures the development of competent and accountable health care providers (Sturrock & Lennie 2009:12).

An extensive literature search by the researcher revealed scanty research findings on the CPD practices, perceptions and needs of nurses in Kenya. This motivated the

researcher to explore nurses' CPD practices, perceptions and needs in a selected public health care facility in Kisumu East District, in the Nyanza province of Kenya.

1.5 LITERATURE REVIEW

The researcher conducted an extensive literature review on CPD in Kenya, using key words and search engines to find information (see table 1.1).

Table 1.1 Summary of key concepts and search sources

Key concepts	Database
• Continuing professional development • Kenya nurse education • Nurses • Continuing professional development practices • Nurses' perceptions • Nurses' learning needs • Adult learner	• CINAHL (Cumulative Index to Nursing and Allied Health) • EbscoHost • HINARI • Kenya Nursing Journal • Nursing Council of Kenya archives • Medline (Ovid) • PubMed • The selected hospital records

Despite the assistance provided by the key subject librarians at the University of South Africa (UNISA) and the Kenya National Library, Kisumu, Kenya, the researcher found limited research on CPD in the nursing profession in Kenya.

1.6 PURPOSE OF THE STUDY

The purpose of the study was to explore nurses' practices, perceptions and needs in relation to CPD in a public health care facility in the Kisumu East District, Nyanza province, Kenya. Aims are intentions, goals or what the researcher strives to achieve; the long-term objectives of the study (Kombo & Tromp 2006:36). The overall aim was to investigate CPD of nurses in a selected public health care facility in the Kisumu east district, Nyanza province, Kenya.

In order to achieve the purpose, the objectives of the study were to:

- Explore the practice of CPD among nurses in the selected public health care facility in Kisumu east district, Nyanza province, Kenya.
- Explore nurses' perceptions of CPD programmes in the selected public health care facility.
- Describe the CPD needs of nurses in the selected public health care facility.

1.7 SIGNIFICANCE OF THE STUDY

Quality of health care refers to "the degree to which health care services for individuals and populations increase the likelihood of achieving desired health care outcomes and are consistent with current professional knowledge" (Cheesman 2009:340). This means that in order for nurses in Kenya to be able to provide quality health care that meets and supersedes the expectations of their clients, their participation in CPD has to become an integral part of their career prospects.

This study will therefore contribute to positive health outcomes as the findings can guide organisations, policy makers and other stakeholders in designing programmes that address learning needs identified by nurses themselves and which have been guided by patient, family and community needs. In addition, this should ensure that nurses remain current in knowledge and skills thereby contributing to the overall improved quality of nursing care in Kenya. The findings will also contribute to strengthening nursing as a profession in Kenya through designing programmes that enhance nurses' access to current knowledge.

1.8 CONCEPTUAL FRAMEWORK

A conceptual framework is "a collection of interrelated ideas and concepts based on theories. It is a set of prepositions derived from and supported by data and serves to explain phenomena based on the theories" (Kombo & Tromp 2006:56).

The goal of a conceptual framework is to categorise and describe concepts relevant to the study and map relationships among them. A conceptual frameworks used in a study serves several functions such as building a foundation, to demonstrate how a study

advances knowledge, to conceptualise the study, to assess the research design and instrumentation, and also provide a reference point for interpretation of findings (Rocco & Plakhotnik 2009:122). In addition, building a foundation in a study requires "using previous work in such a way as to demonstrate linkages, illustrate trends, and provide an overview of a concept, theory, or literature base so as to be able to clearly show the gap in what is known that a study will address" (Rocco & Plakhotnik 2009:123).

In order to explore the practices, perceptions and needs of nurses in relation to their participation in CPD activities which involves adult learning, it was necessary to identify and select an appropriate conceptual framework to form the basis or framework for the study. Polit and Beck (2008:143) maintain that it is important for the researcher to explain the underlying concepts of the study as this assists in the integration of the research findings. The researcher selected Knowles' adult learning theory as a framework to guide the study.

1.9 KNOWLES' ADULT LEARNING THEORY

Knowles (1973:52) distinguishes between pedagogy and andragogy, recognising that adults and children learn differently. Knowles (1970:54) defines *pedagogy* as "the art and science of learning in childhood" and *andragogy* as "the science and art which assists adult learners to learn". Andragogy includes any intentional and professionally guided activity that aims at behavioural change in adult persons. An environment that enhances learning in adults is a setting viewed by adults to be informal, comfortable, flexible and non-threatening (Knowles 1970:54). This means further that the educator could be called upon to adopt a seating arrangement with the teacher being part of the team; a circular arrangement would work best to enhance oneness.

According to Knowles (1970:27), earlier teachers of adult learners perceived learning to be a process of active inquiry and not only reception of transmitted content. These teachers invented teaching techniques that actively engaged learners in inquiry such as the case method and Socratic dialogue. The author further emphasises that in the teaching/learning interaction the teacher should play the role of a facilitator in learning as teachers are no longer regarded as the owners of knowledge.

Knowles' adult learning theory identifies three main concepts that guide the design and implementation of adult learning programmes: the goals and purpose of learning; the individual and situational differences, and the six principles of adult learning. These three concepts are interrelated and influence the design and conduct of adult learning programmes (Knowles, Holton & Swanson 2005:4) (see figure 1.1).

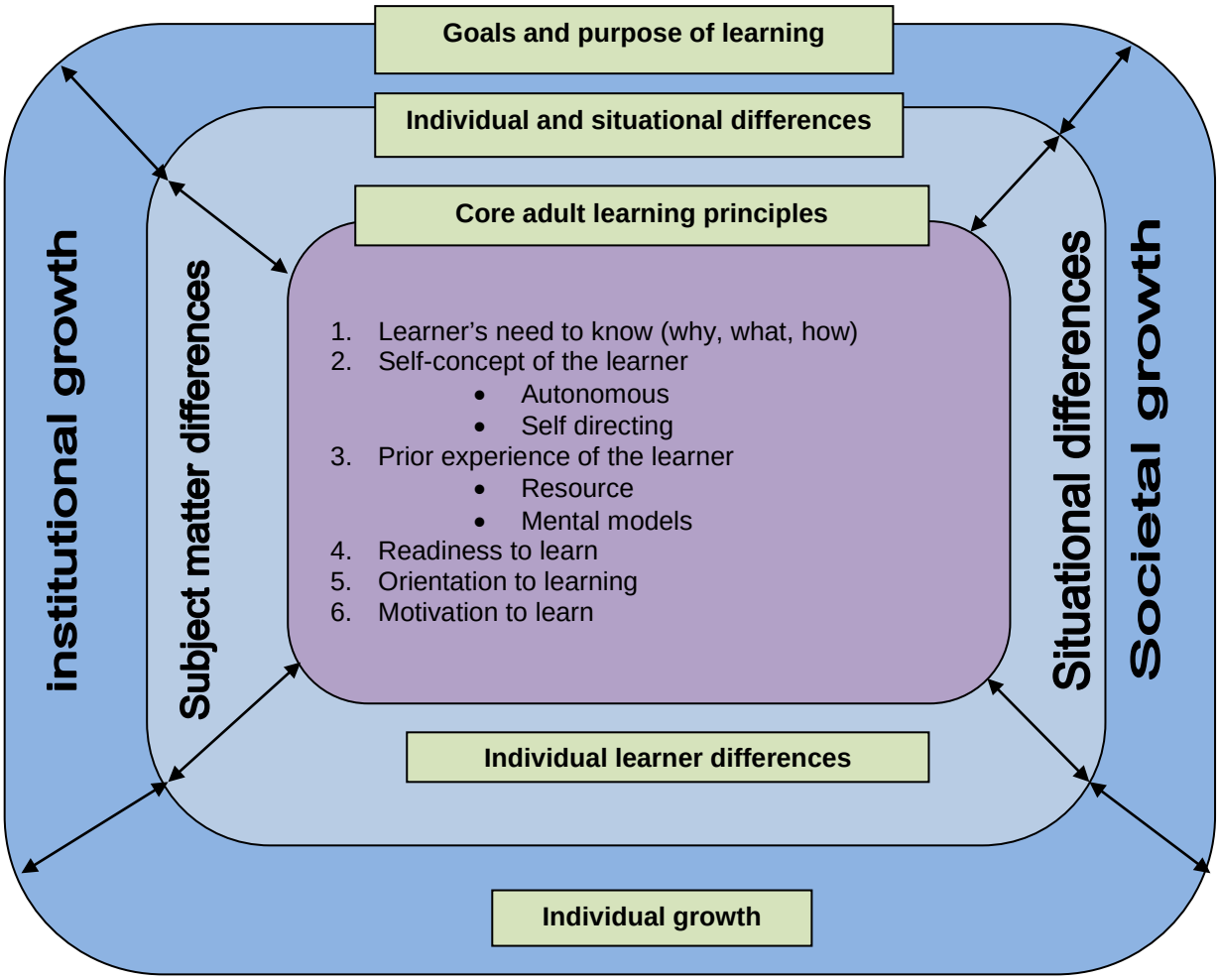

Figure 1.1 Andragogy in practice

Source: Knowles, Holton and Swanson (2005:4)

The researcher was guided by Knowles' adult learning theory in identifying the study variables. The dependent variable was nurses' participation in CPD activities while the independent variables were demographic factors, CPD knowledge, practice, perception and needs.

1.9.1 Goals and purpose of learning

According to Nafukho, Amutabi and Otunga (2005:8), “the mission of adult education is one of satisfying the needs of the individual, the institution and the society. Adult educators have the responsibility of helping individuals to satisfy their individual needs and achieve their set goals. Institutions that promote adult education programmes have a need to improve their ability to operate effectively and establish adult learner understanding and involvement”. Nafukho et al (2005:8) add that the overall development of society requires programmes to equip adults with core competencies and skills that enable them to perform in uncertain and ever-changing work environments.

1.9.2 Individual and situational differences

Adult learners bring to the classroom a diversified range of individual differences related to their experiences, interests, background, goals and preferred learning styles. CPD providers should manage these differences among adult learners by creating activities that tap into adult learners’ experiences such as group discussions, problem-solving activities and simulations (Nafukho et al 2005:11). Individual, situational and subject matter differences privilege some learners while at the same time acting as barriers to others in relation to their participation.

1.9.3 Core adult learning principles

This section discusses the core adult learning principles and their implications for CPD programmes. These six principles guided the researcher in developing the questionnaire (see annexure B2).

For adult learning to be effective six main principles should be used as a guide for designing and implementing CPD programmes (Knowles et al 2005:4). The six core principles are the learner’s need to know; self-concept; prior experience; readiness to learn; orientation to learning, and motivation to learn.

1.9.3.1 Learner's need to know

Adult learners would like to know the reason *why* they should learn something before undertaking to learn it. This principle deals with *what, why* and *how* of learning. According to Knowles (1970:57), when adults undertake to learn something on their own they are noted to invest considerable energy in identifying the benefits they will gain by learning it and the negative consequences of not learning it. Thus the first task the facilitator of CPD should undertake is to help the learners become aware of the "need to know".

1.9.3.2 Self-concept

As people mature and reach adulthood they attain a new status in non-educational responsibilities such as worker, spouse, parent and citizen. Adults see themselves as being able to make their own decisions, face the consequences and manage their own life. Consequently, the adult develops a need to be perceived by others as being self-directing and autonomous (Knowles 1970:40).

Adults therefore need to be treated with respect and given room to make their own decisions. Adults also have the need to be treated as unique individuals. However, they tend to avoid, resist and resent situations in which they feel they are treated like children and told what to do, threatened, or judged. Adults tend to resist learning under conditions that are incongruent with their self-concept as autonomous individuals (Knowles 1970:40).

The autonomy and self-direction of adult learners may be enhanced by providing a suitable physical environment; involving learners in self-diagnosis of needs; involving them in planning; encouraging self-direction, and incorporating assessment as a process.

CPD providers should provide a physical learning environment where the learners feel at ease. The environment should have comfortable adult size furnishings and equipment. The meeting rooms should be arranged informally with lighting taking into account the decreasing sight of adults due to "advancing age" (Knowles 1970:41). The psychological environment should make adult learners feel accepted, respected and

supported. There should be a spirit of mutuality between teachers and students and freedom of expression without fear of punishment or ridicule (Knowles 1970:41).

The emphasis should be on the learners' involvement in a process of self-diagnosis of learning needs because adult learners are highly motivated to learn those things which they consider they need to learn (Knowles 1970:42).

CPD providers need to recognise that individuals feel committed to a decision or activity to the extent that they have participated in making it or planning it. Andragogy requires the involvement of learners in the process of planning their learning with the teacher serving as a procedural guide and content resource. All the students may be involved in planning directly if the numbers are small. If the numbers are larger, it is imperative that representatives, councils, committees, task forces and teams be taken into account through which the learners feel they are participating in the planning by proxy (Knowles 1970:42).

Enhancing adult learners' self-directing may also be achieved through encouraging them to take an active role during the conduct of the learning and the teacher assuming the role of a facilitator and guide (Knowles 1970:42).

CPD providers should incorporate evaluation as a mutual process in which the teacher helps the learners to get evidence for themselves about the progress they are making toward their educational goals. The strengths and weaknesses of the educational programme itself are also assessed in terms of how it has facilitated or inhibited the students' learning (Knowles 1970:43).

1.9.3.3 Experience

Adult learners enter learning situations with different backgrounds which they bring from their past experience. Adult learners should therefore be used as resource persons or mental models. The experiences create a foundation for which adult learners relate their new learning and also act as fixed habits and patterns of thoughts which should be "unfrozen" leading them to be more open minded (Knowles 1970:44).

CPD providers may enhance the use of adult learners' past experiences in the learning process by ensuring that the programmes designed emphasise use of experiential techniques, including, for example, group discussions, case methods, critical incident processes, simulations, role playing and field projects. The programme should also emphasise the application of learning to day-to-day activities through the development of action plans and guiding learners to learn from these experiences (Knowles 1970:45).

Finally, the CPD facilitator together with the learners should conduct self-directed diagnostic sessions at the beginning of the learning experiences as this may assist the earners to "unfreeze" fixed habits and experiences by looking at themselves more objectively and thus freeing their minds of misconceptions (Knowles 1970:44). This process is also important as it leads to the identification of learners' needs which help in guiding the conduct of the programme.

1.9.3.4 Readiness to learn

The principle of readiness to learn recognises that adults just as children learn best those things that are necessary for them to know in order to advance from one phase of development to the next. Adults also undergo phases of personal growth, reaching certain developmental tasks, which show readiness to learn (Knowles 1970:46).

The developmental tasks of adulthood are as a result of evolution of social roles such as the roles of being workers, mates, parents, homemakers, sons or daughters of aging parents, citizens and friends, members of an organisation, religious affiliates and users of leisure time. The requirements for performing each of these social roles change as one moves through the three phases of life, namely early adulthood, middle age and later maturity. These phases are characterised by changing developmental tasks and therefore changing readiness to learn (Knowles 1970:46).

In the role of workers, adults' first developmental task is to be employed. The worker is ready to learn anything required for getting a job but at this point is not ready to learn tasks related to a supervisory role. Having secured a job they are faced with the task of mastering it so that they do not get fired thus the workers are ready to learn the special skills and standards expected of them and how to get along with fellow workers. Working up the occupational ladder is the task that follows and at this point the workers

are ready to learn supervisory roles. Finally, after reaching their ceiling they face the challenge of dissolving their role of worker and are now ready to learn about retirement or substitutes for work (Knowles 1970:46).

This means, then, that adults are ready to learn when they feel that they need to know the information or have the desire to increase their knowledge whereby the new knowledge could contribute to their being more effective in accomplishing tasks. CPD providers therefore may need to ensure that effective learning takes place among adults through sequencing and timing of the curriculum so as to be consistent with the developmental tasks of the learners. CPD providers should also guide the formation of workable groups among the learners with similar developmental tasks (Knowles 1970:48).

1.9.3.5 Orientation to learning

Adults enter into education from different time perspectives compared to children. To a child, education is the accumulation of knowledge and skills that may be used later in life when the need arises. Adults would like to apply knowledge and skills learnt immediately (Knowles 1970:48). For instance, nurses would like to know how acquired knowledge and skills would enhance their nursing practice. This implies that CPD providers need to involve adults in identification of gaps and learning needs in their current practice. The CPD programmes should be problem centred.

1.9.3.6 Motivation

All adults respond to both external and internal motivators (see chapter 2, section 2.5.1.6). Adults are motivated to keep growing and developing in relation to their career. It is important to note that as adults mature the motivation to learn is more from within (intrinsic motivators). Intrinsic motivators include increased job satisfaction, self esteem and quality of life. External motivators include better jobs, promotions and higher salaries (Knowles 1970:63).

1.10 ASSUMPTIONS UNDERLYING THE STUDY

The study was premised on the following assumptions based on the characteristics of adult learners:

- Adult learners' self-concept moves from being dependent personalities toward being self-directed human beings. Therefore the role of the teacher is to engage adult learners in processes of mutual inquiry rather than to transmit knowledge to the learners and then evaluate their conformity to it (Knowles 1970:31).
- Adult learners accumulate a growing reservoir of experiences that become an increasing resource for their learning. Experiences are the richest resources for adult learners. Therefore, the core methodology of adult training is the analysis of their experiences (Knowles 1970:31).
- Adult learners' readiness to learn becomes oriented increasingly to the developmental tasks of their social roles. Adults' orientations to learning are responses to pressures adults feel from the performance of their current roles.
- Adult learners' time perspective changes from postponed to immediate application of knowledge and accordingly their orientation to learning shifts from subject centred to problem centred (Knowles 1970:39).

1.11 RATIONALE FOR THE SELECTED CONCEPTUAL FRAMEWORK

The researcher considered Knowles' adult learning theory appropriate to guide the study as it provided the framework within which to identify and describe the characteristics of CPD programmes.

Knowles' model acknowledges the self-driven nature of adults to learn and the experience accumulated by adult learners as resources in learning. It can be applied in any adult learning setting or programme as it encourages the mutual diagnosis of learning needs and evaluation of the programme by educator and learner (Knowles 1970:39).

The model recognises that learning does not take place in a vacuum. Adult learners interact with their environment during the learning process. When applied to CPD

programmes, then, the model addresses the individual, organisational and societal differences that affect learning (Knowles et al 2005:4).

1.12 RESEARCH SETTING

The research setting is the physical location and conditions in which data collection takes place. The setting may be one or more sites, a naturalistic environment such as in peoples' homes or at their places of work, or in a highly controlled laboratory situation (Polit & Beck 2008:57). The researcher used a naturalistic setting and data was collected at the respondents' places of work.

The study was conducted in Kenya, at a selected public health care facility in the Kisumu East District, Nyanza province.

Kenya is a country in East Africa. The country lies between five degrees north and five degrees south latitude and between 24 and 31 degrees east longitude. It is almost dissected in two by the equator. Tanzania borders it to the south, Uganda to the west, Ethiopia and Sudan to the north, Somalia to the northeast, and the Indian Ocean to the southeast (see figure 1.2). Kenya is divided into eight provinces and 72 districts. It has a total area of 582,646 square kilometres, of which 571,466 square kilometres form the land area. Approximately 80% of the land area of the country is arid or semiarid, and only 20% is arable. The 2009 population and housing census revealed that Kenya had a total population of 38,610,097 (Kenya National Bureau of Statistics 2010:2). The study area was a selected public health care facility in the Kisumu East District, Nyanza province in Kenya.

Figure 1.2 represents a map of Kenya, depicting the eight provinces: Rift Valley, Eastern, North Eastern, Western, Nyanza, Central, Coast, and Nairobi, which is also the capital city.

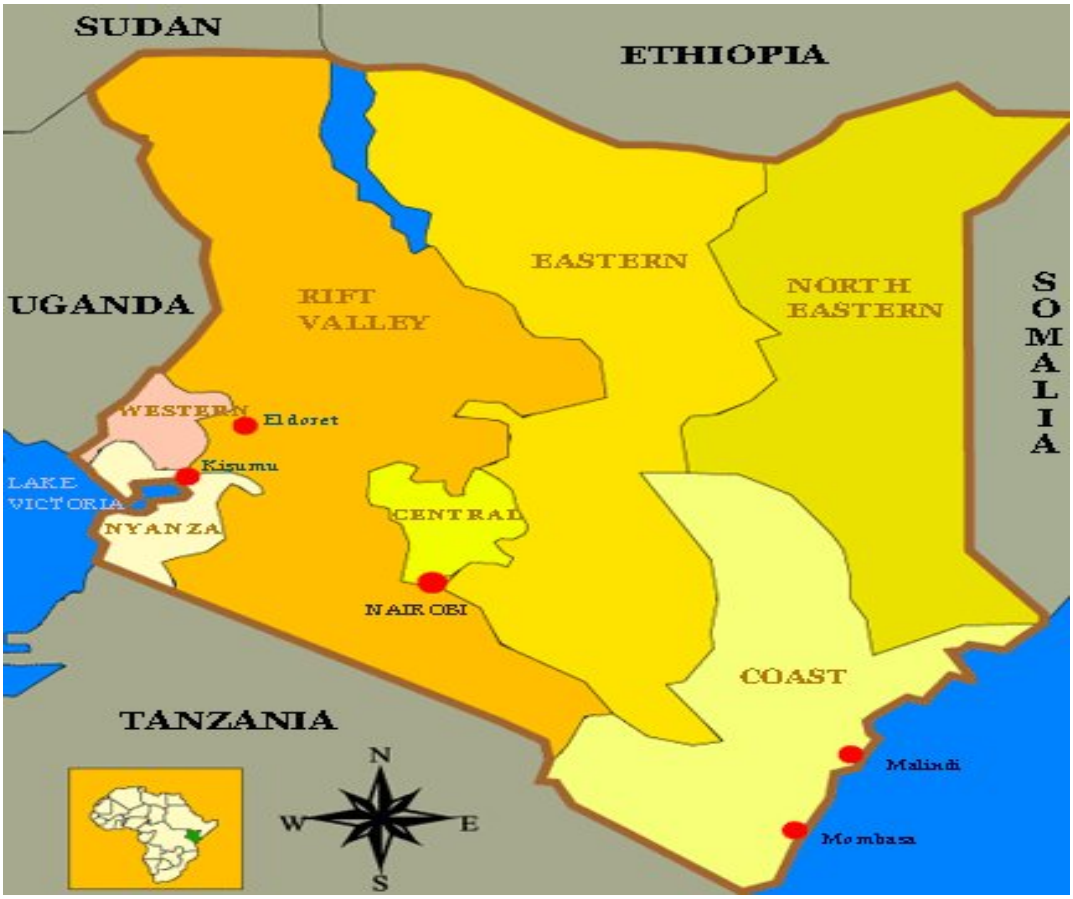

Figure 1.2 Map of Kenya

Source: Kenya Ministry of Tourism (2007:online)

The Nyanza province has a total population of 5,442,711 (Kenya National Bureau of Statistics 2010:online). The Kisumu East District is one of the 13 districts in the Nyanza province. The district has a total of 55 health care facilities as indicated in table 1.2.

Table 1.2 Health care facilities in Kisumu East District

Type of health care facility	GOK	Faith-based organisations/non-governmental organisations/CBO	Private	TOTAL
Hospitals	3	1	6	**10**
Health care centres	5	0	0	**5**
Dispensaries/clinics	20	8	9	**37**
Maternity and nursing homes	0	0	3	**3**
TOTAL	**28**	**9**	**18**	**55**

Source: Ministry of Health (2009:15)

There are 28 government-managed health care facilities, which include three hospitals, five health centres and twenty dispensaries. The 28 health care facilities have a total of 475 nurses. The remaining 27 health care facilities in the district are managed by non-governmental, community-based and private organisations. The total catchment population served by the 55 health care facilities is 441,978 (Kenya Ministry of Health 2009:10).

1.13 RESEARCH DESIGN AND METHODOLOGY

The research design and methodology refers to the techniques researchers use to structure a study, collect and analyse information that would answer the research questions and lead to achievement of the research objectives. According to Parahoo (2006:23), the research design and methodology is the core of a study and must include definition of the selected individuals, the population of interest, variables (characteristics of the individuals in the population), their status and their relationships to one another. It should also include the data-collection instrument and procedures, and what methods were used to analyse the data.

The positivist and naturalistic paradigms determine the type of research methods used to gather evidence (Polit & Beck 2008:15). The researcher selected the positivist paradigm for the study (see chapter 3 for full discussion).

Researchers may use “descriptive or exploratory survey designs to search for accurate information about the characteristics of particular subjects, groups, institutions or situations or about the frequency of a phenomenon’s occurrence, particularly when little is known about the phenomenon” (LoBiondo-Wood & Haber 2006:240). In this study, the researcher found limited information in the literature review about the practices, perceptions and needs of nurses in relation to participation in CPD in Kenya (see table 1.1). For this reason, the researcher conducted an exploratory descriptive quantitative study.

Quantitative research is systematic and collects data according to a specified plan, using structured data-collection instruments (Somekh & Lewin 2005:215). The researcher used a quantitative research design for this study to systematically collect data on the CPD practices, perceptions and needs of nurses. A research method is the systematic way used to structure a study and to collect and analyse data (Polit & Beck 2008:765). The use of self-administered questionnaire ensured objectivity, prevented researcher bias as the respondents completed the questionnaires themselves, and eliminated the inclusion of the researcher’s feelings during data collection and analysis.

1.14 POPULATION

A research population refers to the entire group of individuals, objects or items that have at least one characteristic in common and it is from this group that samples are taken for measurement (Kombo & Tromp 2006:76). In this study the population comprised the 246 nurses who worked in the selected public health care facility in the Kisumu East District, Nyanza province, Kenya.

The accessible population is the aggregate of subjects that conforms to the designated population criteria and is accessible and available to the researcher as a pool for the study (Basavanthappa 2007:190). The accessible population for this study comprised both registered and enrolled nurses working in the selected hospital. The selected hospital had a total of 246 nurses, comprising 152 RNs and 94 ECNs. During the data-collection period only 210 of the 246 nurses were on duty; 18 nurses were away on training and the remaining 18 were on leave. Twelve nurses were excluded as they were nurse interns while 20 nurses had not attended at least two CPD sessions as per

the inclusion criteria. Out of the 246 nurses working in the selected health care facility only 178 were eligible as the population for this study (Hospital Records 2010:1).

1.15 SAMPLE AND SAMPLING

A sample is a set of elements that make up the population and an element is the most basic unit about which information is collected. Individuals are the most common elements in nursing research (LoBiondo-Wood & Haber 2006:263). A researcher is not able to examine every element in the population of study, thus it is important to sample properly to be able to draw inferences and make generalisations about the population (LoBiondo-Wood & Haber 2006:263).

Sampling is the process of selecting a portion or subset of the designated population to represent the entire population (Basavanthappa 2007:191). In this study nurses comprised the elements about which information on CPD was collected.

Non-probability sampling involves non-random methods to draw elements from the population for inclusion in the study (LoBiondo-Wood & Haber 2006:264). The researcher used convenience sampling to select the health care facility and to select the respondents. Convenience sampling is the use of the most readily accessible persons or objects as subjects in a study (LoBiondo-Wood & Haber 2006:265). The researcher used convenience sampling to select the hospital from the 55 health care facilities in the Kisumu east district (see chapter 3, section 3.7.5).

Of the population of 246 nurses, 178 were selected as the eligible sample guided by the inclusion criteria (see chapter 3 section 3.7.5). In order to participate in the study, the respondents

- had to be working in the selected public health care facility in Kisumu, Kenya
- must have worked in the selected hospital for more than twelve months
- had to be registered by the NCK as either enrolled nurse or registered nurse
- must have attended at least two CPD sessions

1.16 DATA COLLECTION

Data collection is the precise, systematic gathering of specific information relevant to the research purpose, objectives, questions or hypothesis of the study with the aim of proving or refuting some facts (Kombo & Tromp 2006:99). There are different ways to collect information about research subjects, and should be objective and systematic. Objective means that the data must not be influenced by who collects the information and systematic requires that all the data must be collected in the same way. Data-collection methods include observation, interviews, questionnaires and records or available data (LoBiondo-Wood & Haber 2006:317).

LoBiondo-Wood and Haber (2006:325) state that survey research relies almost entirely on questioning subjects with either structured interviews or questionnaires. In this study, the researcher collected data using a self-administered structured questionnaire, which enhanced objectivity and ensured that the participants answered the same questions thus preventing bias (see annexure B2 for a copy of the questionnaire).

A structured questionnaire was used to collect data. The questionnaire consisted of open-ended and closed questions on specific objectives or the six principles in the conceptual framework. The closed questions provided possible alternatives from which respondents could select the answers that best described their situation. The questionnaire was divided into eight sections guided by the conceptual framework of the study:

Section A: Demographical information
Section B: Continuing professional development (CPD) practice
Section C: Nurses' need to know
Section D: Self-concept
Section E: Experience
Section F: Readiness to learn
Section G: Orientation to learn
Section H: Motivation to learn

1.17 VALIDITY AND RELIABILITY

Validity refers to whether a measurement instrument accurately measures what it is supposed to measure. A valid instrument correctly reflects the concept it is supposed to measure. This study considered content, criterion-related and construct validity in the measurement instrument (LoBiondo-Wood & Haber 2006:338).

Content validity provides the framework and basis for formulating the items that adequately represent the content. Criterion-related validity enhances correlation of the respondents' performance on the instrument to their actual behaviour. Construct validity relates to the extent that a theoretical construct or trait will be measured (LoBiondo-Wood & Haber 2006:338). The researcher ensured validity by conducting a pre-test (see chapter 3, section 3.9.1.2).

Reliability is the extent to which the research instrument yields the same results on repeated measures. This means the instrument is stable. It is concerned with stability, homogeneity and equivalence. An instrument is said to be stable when similar results are obtained on separate administrations of the instrument. Homogeneity or internal consistency is the degree to which items in the scale measure the same concept. Equivalence is the consistency between alternate forms of the tool (LoBiondo-Wood & Haber 2006:352). In this study questions and responses relevant to the subject of investigation guided by Knowles' theory were used to ensure reliability.

1.18 DATA ANALYSIS

Data analysis is the systematic organisation and synthesis of raw information (Polit & Beck 2008:751). The researcher used quantitative data analysis methods to code and convert the data into numerical data. Measures of central tendency, that is, mean, mode and median together with correlation analysis were used to analyse the findings which were used to describe the CPD practices, perceptions and needs of nurses in the selected public health care facility Kisumu, Kenya.

A statistician analysed the data using the Statistical Package for the Social Sciences (SPSS) computer program. The results were presented in descriptive and inferential statistics.

1.19 ETHICAL CONSIDERATIONS

Ethics deals with matters of right and wrong. *Collins English Dictionary* (2009:533) defines ethics as "a social, religious, or civil code of behaviour considered correct, especially that of a particular group, profession, or individual". LoBiondo-Wood and Haber (2006:563) refer to ethics as "the theory or discipline dealing with principles of moral values and moral conduct". In this study, ethics refers to the researcher's moral responsibility towards the institutions involved, respondents, and individual scientific integrity.

Accordingly, the researcher applied for and obtained ethical clearance and permission to conduct the study from the University of South Africa (UNISA) Ethics Review Committee, Great Lakes University of Kisumu Ethics Review Committee, and the selected public health care facility (see annexure A for ethical clearance applications and ethical clearance letters).

The participants were informed of the purpose of the study and that participation was voluntary. The researcher obtained informed consent from the participants (see annexure B1). Confidentiality, respect and privacy were also ensured as participants were not required to write their names on the questionnaire (see chapter 3, section 3.10).

1.20 DEFINITIONS OF KEY TERMS

For the purposes of this study, the following terms were used as defined below.

- **Continuing professional development.** The *Concise Edition English Dictionary* (2005:70) defines *continuing* as "occurring without interruption". Collins English Dictionary (2009:347) defines *continuing* as "to persist in something".

  A *profession* is "an occupation requiring special training in the liberal arts or sciences, esp. one of the three learned professions, law, theology, or medicine" (*Collins English Dictionary* 2009:1239). *Collins English Dictionary* (2009:1239) defines *professional* as "relating to, suitable for, or engaged in as a profession; a

person who belongs to or engages in one of the professions". *Collins English Dictionary* (2009:431) defines *development* as "the act or process of growing, progressing, or developing".

Dickerson (2010:100) refers to nursing professional development as "the lifelong process of active participation by nurses in learning activities that assist in developing and maintaining their continuing competence, enhance their professional practice, and support achievement of their career goals".

In this study, *continuing professional development* refers to learning activities that nurses in Kenya engage in after attaining basic nursing qualifications. These learning activities are either in the form of seminars, workshops, online short courses, journaling, research or formal training that results to progress and maintenance of competence in nursing knowledge and skills and achievement of nurses' career goals and progression of nursing as a profession in Kenya and results to addressing the needs of patients, the family and the community.

- **Needs.** The *Oxford Concise Medical Dictionary* (2007:480) defines a need as "a requirement or necessity; it is the capacity to benefit from an intervention as opposed to the mere lack of something".

  In this study, *needs* refers to continuing professional development necessity and intervention identified by nurses themselves that could be of benefit to nurses, patient, community and the country as a whole.

- **Nurse.** A nurse is "a trained person who is experienced in providing care and can be entrusted with the care of the sick and the carrying out of medical and surgical routines" (Oxford Concise Medical Dictionary 2007:496). The NCK (Code of ethics and professional conduct for nurses. 2006:iv) defines a nurse as "a person who has satisfactorily completed a prescribed programme of nursing education and basic training in nursing provided for by a teaching institution approved by the NCK and is qualified, registered/ enrolled/licensed by the NCK to provide nursing services".

In Kenya, a registered nurse (RN) is a person who has undertaken either diploma training for three and half years or a degree in nursing which takes four years of training at a designated university, and passed the prescribed examination set and marked by the NCK. An enrolled community nurse (ECN) is an individual who has undergone two years of formal training at a community hospital and has passed the practising NCK examination.

In this study, a *nurse* refers to a person who has successfully completed basic nursing training in nursing either as an ECN or RN and is licensed by the NCK to practice.

- **Practice.** *Collins English Dictionary* (2009:1221) defines practice as "the exercise of a profession". *The Concise English Dictionary* (2005:251) defines practice as a "custom, habit, repetition and exercise done in order to gain skill".

  In this study, *practice* refers to the nurses' participation in continuing professional development activities with the aim of acquiring advanced knowledge and skills in nursing.

- **Perception.** *Collins English Dictionary* (2009:1156) defines perception as a "way of perceiving; view; insight or intuition gained by perceiving".

  In this study, *perception* refers to the respondents' knowledge and understanding of CPD.

- **Public health facility.** *Collins English Dictionary* (2009:1253) defines public as "of, relating to, or concerning the people as a whole; open or accessible to all". Health is "a state of complete physical, mental and social well being not merely the absence of disease or infirmity" (*Oxford Concise Medical Dictionary* 2007:323). Facility refers to "the means or equipment facilitating the performance of an action; an organisation or building offering supporting service" (*Collins English Dictionary* 2009:553). A public health facility is therefore designed by the government to provide health care service for all.

In this study, *public health facility* denotes health care facilities that are managed by the Ministry of Health of Kenya for the provision of health care services for all.

- **Adult learner.** The *Concise Edition English Dictionary* (2005:11) defines an *adult* as a "fully grown and mature person". *Merriam-Webster's Medical Dictionary* (2007:online) defines an *adult* as "one who has reached full development or maturity especially in size, strength or intellectual capacity".

  Collins English Dictionary (2009:886) defines a *learner* as someone who wishes to "gain knowledge of something or acquire skill in some art or practice".

  Knowles (1973:57) states that "an adult is defined using four approaches, namely the biological, legal, social and psychological approach". People become adults biologically when they reach the age at which they can reproduce at early adolescence (Knowles 1973:57). A person legally becomes an adult when he or she reaches the age at which the law says he or she can vote, obtain a driving license or marry without seeking another person's consent (Knowles 1973:57). People socially become adults when they start to perform adult roles such as being workers, spouses, parents and even being allowed to vote (Knowles 1973:57). People become adults psychologically when they attain a self-concept of being responsible for their own lives and become self-directing (Knowles 1973:57).

  Knowles (1970:30) emphasises further that adult learners have intellectual aspirations least likely to be aroused by the rigid, uncompromising requirements of authoritative conventionalised institutions of learning, but they learn best in informal, comfortable, flexible, non-threatening settings.

  In this study an adult learner refers to a nurse who has completed his/her basic training, is licensed by the NCK to practise, and also participates in either formal or informal CPD programmes and activities to improve his/her nursing knowledge and skills.

1.21 OUTLINE OF THE STUDY

Chapter 1 introduces the study, briefly describing the purpose, significance, research design and methodology of the study.

Chapter 2 covers the literature review conducted for the study.

Chapter 3 describes the research design and methodology.

Chapter 4 discusses the data analysis and interpretation.

Chapter 5 briefly describes the conclusions and limitations of the study, and makes recommendations for practice and further research.

1.22 CONCLUSION

This chapter briefly described the research problem; purpose, objectives and significance of the study; conceptual framework guiding the study; research setting, design and methodology, and the ethical considerations. The key terms were defined and an outline of the study provided.

Chapter 2 discusses the literature review conducted for the study.

Chapter 2

Literature review

2.1 INTRODUCTION

This chapter discusses the literature review on CPD among nurses conducted for the study.

2.2 ADVANCES IN HEALTH CARE PROVISION

Nurses today face increasing change in their practice due to advanced technology and changes in patient's and client's needs (DeSilets 2010:435). These technological advances have a direct influence on the delivery of health care. Health promotion interventions and surgical procedures such as heart and transplant surgery; advanced equipment used in the trauma and emergency, and critical care units; new surgical techniques such as nanotechnology, and advances in heart surgery such as open heart surgery, provide services that require advanced education in nursing and for practising nurses. For practising nurses, much of the advanced care knowledge and skills can be met through participation in CPD activities.

The increasing and ongoing change also challenges health care delivery systems to provide care that meets and supersedes patient and societal demands and to ensure maintenance of quality health care. This calls for nurses to continuously acquire new knowledge and skills so as to deal effectively with the changes. Continuing education has been shown to eliminate deficiencies between formal preparation and practice, enhance clinical skills, and promote the development of knowledge and skills necessary for continued professional competence (Nalle et al 2010:108). Furthermore, Levett-Jones (2005:229) points out that continuing education allows nurses to keep abreast of the latest research and developments in their field and to acquire the complementary technological skills necessary in the ever-changing hospital environment.

Yfantis, Tiniakou and Yfantis (2010:193) define CPD as “the systematic maintenance, improvement and broadening of knowledge and skills, and the development of personal qualities necessary for execution of professional and technical duties throughout the individual’s working life”. Rouse (2004:2069) emphasises that lifelong learning includes all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences in a personal, civic, social and employment-related perspective. Participation in CPD enables nurses to acquire competence in their areas of work leading to them being accountable to society for safe practice (Cooper 2009:501). Nalle et al (2010:107) concur, adding that participation in continuing education also helps to reduce deficiencies between learnt theory and practice, enhances clinical competence, and promotes the acquisition of knowledge and skills necessary for continued professional competence.

Participation in professional development calls upon nurses to take responsibility for their own personal and professional development and make a personal pledge to lifelong learning of specific skills or broad enhanced career development; for example, enrolling in a Masters programme after first degree (Cooper 2009:50). In addition, Gould, Drey and Berridge (2007:602) emphasise that it is important for nurses to commit themselves to professional development to be able to deliver safe, effective and quality health care.

Dickerson (2010:101) maintains that professional development should be viewed as an ongoing process after obtaining a basic nursing qualification and thereafter continuing professional development never stops. Dickerson (2010:101) goes on to say that professional development applies to all nurses irrespective of their practice venues and specialisation as the changes in patient care require the nurse to learn new skills, revise previous ways of functioning, and explore changes in health care that affect nursing practice and patient care. Fleet, Kirby, Cutler, Dunikowski, Nasmith and Shaughnessy (2008:16) regard CPD as an ongoing, career-long process of acquiring new knowledge, technical skills, learning skills, computer skills, managerial skills, interpersonal skills, and attitudes, in order for the nurse to be able to maintain competence in practice in a specific field in the nursing profession.

2.3 SCOPE OF THE LITERATURE REVIEW

Polit and Beck (2008:65) state that quantitative research is based on already existing knowledge, thus to contribute to the evidence base quantitative researchers review literature to understand what is already known about a research problem. In addition, a thorough literature search provides a foundation on which to base new evidence and should be done before data collection.

The purpose of a literature review is to critically examine and discuss the research that has already been done and documented on a particular topic. The researcher therefore located, analysed, synthesised and interpreted previous research and documents such as periodicals, books, extracts, web pages and comments related to the topic of this study. According to LoBiondo-Wood and Haber (2006:80), a literature review

- Determines what is known and unknown about a subject, concept or problem.
- Generates useful research questions and hypothesis.
- Identifies key variables for research and suggests the relationships that might exist between them.
- Provides suggestions on how previous research on the topic could be usefully extended by means of further research and study.
- Provides a basis for determining the significance of the study
- Helps the researcher to determine an appropriate research design, methodology and analysis for answering the research questions based on the assessment of the strengths and weaknesses of earlier research.

For the purpose of this study, the literature review focused on adult learning, Knowles' adult learning theory, the importance of CPD, and nurses' CPD practices, perceptions and needs. The scope of the review was broad enough to allow the researcher to become familiar with the research problem and narrow enough to cover sources with a direct bearing on the problem under study (Burns & Grove 2003:110).

The literature review covered books, journals, publications, and the Internet (see chapter 1, table 1.1). The researcher consulted the hospital records and knowledgeable

persons, including the nursing education officer of the selected public health care facility, for information on CPD programmes and nurses' CPD practices.

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The review revealed limited information on CPD practices, perceptions and needs of nurses with specific reference to Kenya.

Through the literature review the researcher acquired a more refined and deeper insight into CPD and adult learning, and additional information about recent international trends. The researcher also reviewed and assessed the methodology, instruments, findings, conclusions and limitations of other research. Moreover, the researcher familiarised herself with developments in and achievements of CPD practices which she can apply in her clinical practice to improve the knowledge and skills of nurses she serves.

2.4 ADULT LEARNING

The *Concise Edition English Dictionary* (2005:11) defines an adult as a "fully grown and mature person". *Merriam-Webster's Medical Dictionary* (2007:online) defines an adult as "one who has reached full development or maturity especially in size, strength or intellectual capacity". *Collins English Dictionary* (2009:online) defines a learner as "someone who is learning something" (see chapter 1, section 1.20).

In this study, adult learning refers to formal or informal CPD programmes and activities designed for nurses who have completed their basic training and are licensed by the NCK to practise. Walkin (2006:3) points out that CPD providers need to realise that adults learn differently compared to children because adults bring with them past experience which should be used as a resource to enhance learning. Moreover, no single learning theory is able to address all aspects of adult learning needs as people learn in different ways. Learning theories and teaching strategies used in delivering CPD programmes should therefore address adult differences in abilities, interests, motivation, physical and intellectual handicaps (Walkin 2006:3).

2.4.1 Goals and purpose of adult education

The mission of adult education should be to satisfy the needs of the individual, the institution, and the society (Nafukho et al 2005:8). Adult learner facilitators have the responsibility of helping individuals to satisfy their learning needs and achieve their set goals while institutions have a need to improve their ability to operate effectively. Further, the overall development of society requires CPD programmes that equip adults with core competencies to enable them to perform in an uncertain and ever-changing work environment.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) (1976:online) adopted five goals and purposes of adult education in Africa and internationally that are relevant to CPD among nurses:

- *Promote peace, international understanding and co-operation*. The first goal of adult education for nurses in Africa is promoting work for peace, international understanding and co-operation. From time to time nurses are called upon to serve communities and clients in areas afflicted by war both locally and internationally and therefore need to engage in continuous learning to acquire the knowledge and skills required to effectively serve these clients.

- *Develop understanding of major contemporary problems and social change*. The second goal is for nurses to develop an understanding of major contemporary problems and social change with a view to achieving social justice for the people they serve. Social change includes emerging new diseases such as Human Immuno-deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS); increased poverty leading to increasing street children and families; clients with disabilities, and the younger generation requiring youth-friendly services.

- *Foster understanding and respect for customs and culture*. The third goal is creating understanding and respect for the diversity of customs and cultures and developing solidarity at family, local, national, regional and international levels. Nurses serve clients and communities who have different beliefs and cultural backgrounds. Through participation in CPD nurses are able to continuously learn how to effectively serve people from diverse cultures.

- *Enable acquisition of knowledge, qualifications, attitudes and behaviour*. The fourth goal of adult education is to enable nurses to acquire new knowledge, qualifications, attitudes or forms of behaviour that foster full maturity of their personalities. Participation in CPD enables nurses to acquire competence and knowledge that equips them to mature and grow in the nursing profession.

- *Learning how to learn*. Finally, nurses' participation in CPD is aimed at enabling them to learn how to learn. This means that through CPD nurses acquire skills that equip them to take responsibility for their own learning.

2.4.2 Individual, institutional and societal growth

Nafukho et al (2005:8) emphasise that the goals and purpose of adult education in contemporary African society should focus on meeting the learners' civic and social responsibilities; addressing political needs; facilitating change; enhancing personal and social improvement, for example, work promotion; promoting individual and organisational productivity by enhancing efficiency and effectiveness; promoting career development, and maintaining good social order. Nalle et al (2010:108) maintain that nurses' participation in CPD activities leads to individual and professional development as it helps eliminate inconsistencies and deficiencies between formal preparation and practice, and enhances progression of competence through the acquisition of clinical skills and competence.

2.4.3 Individual, situational and subject matter differences

Adult learners bring to the classroom a diversified range of individual differences related to their experience, interests, background, goals and preferred learning styles. These differences act as barriers and limit adult learners' participation in CPD (Nafukho et al 2005:11, 61). CPD providers should manage these differences among adult learners by creating activities that tap into the adult learners' experience, such as group discussions, problem-solving activities and simulations. (Nafukho et al 2005:61) add that these differences privilege some learners while acting as barriers to others in relation to their participation in CPD.

In their study to identify factors that influence nurses' participation in CPD activities, Schweitzer and Krassa (2010:447) found that CPD developers, employers and other stakeholders need to understand these factors in order to provide meaningful learning opportunities that address nurses' learning needs. Nurses recognise professional development as important as it contributes to personal, institutional and professional development. However, some personal, professional or organisational factors hinder nurses' participation in CPD activities (Schweitzer & Krassa 2010:447).

At individual level CPD providers need to recognise that differences in interest, motivation, physical and intellectual abilities exist among adult learners. No single learning theory/teaching strategy can address every aspect of learners' needs. Therefore learner-centred strategies/approaches that enhance active learner involvement should be utilised during programme delivery (Walkin 2006:3). Individual factors perceived by nurses as barriers to their participation in CPD include lack of personal interest, family commitments and responsibilities, difficulty in finding relevant CPD programmes and topics of interest, and lack of information on available programmes (Schweitzer & Krassa 2010:441-447; Yfantis et al 2010:199).

Walkin (2006:17) points out that individual learner differences may be self-imposed or may result from past experiences with facilitators or CPD programmes. CPD providers and facilitators should address these differences by asking learners to share their perceived problems and challenges at the beginning of the programme. In addition, the facilitator should also make an effort to let learners feel at ease, deliver the content carefully and at a pace that is appropriate for the level of learning, and show appreciation and respect for each individual's input and involvement.

Mayes and Schott-Baer (2010:17-22) and McCoy (2009:129) identify situational factors perceived by nurses as barriers to their participation in CPD. These factors include lack of CPD policy by the nursing regulatory body; lack of guidelines on relevant CPD and accredited providers; staff shortage leading to lack of time; difficulty in accessing programmes, especially for nurses working at night and those in rural areas; lack of organisational policy that promotes CPD among nurses; lack of organisational support; decreasing budgets for CPD activities in health facilities; lack of funding for expenses incurred while attending CPD; travelling distance from some programmes; "non-support-ive" supervisors and, finally, lack of quality CPD programmes.

2.4.3 Strategies to overcome adult learners' individual and situational differences

To promote CPD and overcome persistent barriers to participation, there is a need for policy change and creation of systems, beliefs and values that promote professional development in an organisation (Cooper 2009:502). For example, the NCK (2008:3) stipulates that all nurses practising in Kenya need to attend at least 20 CPD hours per year for re-licensure purposes without indicating the type of CPD or listing the recognised CPD providers. This results in nurses' attending CPD sessions to meet the stipulated hours without considering the quality or relevance of the programmes to practice.

Principles of adult learning should guide the design and implementation of CPD programmes and activities. These include ensuring that the adult learners know why they are learning what is being taught, encourage self directed learning, use teaching strategies that appreciates past experiences and prior learning, align the learning experiences with the developmental tasks of the learners, the learners should be able to apply the learned knowledge and skills immediately and finally enhance intrinsic motivators (Nafukho et al 2005:10).

CPD programme providers should use a variety of teaching strategies to enhance knowledge acquisition, active learning, and satisfaction among adult learners. This will help to address the different learner needs as no single teaching strategy has been shown to cater for the vast needs of the learners. Furthermore, use of varied approaches enhances learner interest in what is being taught (Walkin 2006:3). According to Mayes and Schott-Baer (2010:19) and Nalle et al (2010:114), CPD providers should encourage learners to use computer-based, web-based and distance learning opportunities as these offer immediate access to resources, information, and feedback, foster self-responsibility and experiential learning, and help to address the barrier of distance from CPD programmes.

The World Health Organization (WHO 2008:51) emphasises co-ordinated, multi-disciplinary, institution-led and locally delivered programmes as the best option to ensure quality CPD activities that are integrated with national health system needs.

Furthermore, these programmes should provide some form of validation once completed, and include ongoing recertification that disseminates new and updated knowledge and promotes learners' progression.

2.5 KNOWLES' ADULT LEARNING THEORY

Knowles' Adult Learning Theory brings highlights the differences between adult learning and learning in childhood (see section 1.7). *"Pedagogy"* is content focused and involves one person who is considered the expert leading the educational session while the learners are viewed as passive participants. *"Andragogy"* is focused on learner-centred approaches which incorporate motivational principles, placing value on life and learning experiences*. Andragogy* is cited as the most effective approach when dealing with adult learners as it enhances the achievement of learner, organisational and societal goals when applied in CPD programmes (DeSilets & Dickerson 2010:338).

Andragogy plays an important role in enabling CPD facilitators, employers and other concerned stakeholders to appreciate that adults have ideas to contribute, have different learning styles, prefer an informal atmosphere for training, learn because they want to or have to learn. *Andragogy* further enables the adult learner to see themselves as self-directed and responsible and to learn best when practical application is encouraged and need to relate learning to what they already know (DeSilets & Dickerson 2010:339).

The basic principles of *andragogy* identified in Knowles' Adult Learning Theory should guide the design and implementation of CPD programmes for nurses (see section 1.9.3).

2.5.1 Knowles' core adult learning principles

The six core adult learning principles as depicted in figure 1.1 include learner's need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning and motivation to learn.

2.5.1.1 Learners' need to know

Adult learners would like to know the reason why they should learn something before undertaking to learn it (Knowles 1970:57). Nafukho et al (2005:10) support this statement by explaining that if the CPD programme allows adult learners to discover the deficiencies between where they are at present and where they want to be (the set goal) then the learners will become more conscious of the importance of learning the new knowledge and skills. The authors further note that in many African societies adults have continually learnt new skills and knowledge that are considered necessary to make them useful members of the institutions or society that they serve. For example with the emergence of new diseases such as HIV/AIDS that pose challenges to health care, nurses would be ready to acquire new information on the care of patients with HIV/AIDS.

Knowles (1970:58) challenges CPD providers to address the principle of *learners need to know* by ensuring that the CPD programmes they provide are designed with inbuilt systems of personal appraisal, job rotations, and opportunity to interact with role models and needs assessment tools. This is further supported by Pennington (2011:32) who agrees that there is a link between access to CPD opportunities, job satisfaction and nursing retention. The author asserts that CPD requires individuals to take responsibility for identifying their own learning needs and evaluating whether the identified needs have been met or not while the employer's responsibility is to provide health care professionals with the resources and opportunities to participate in CPD. Notarianni, Curry-Lourenco, Barham and Palmer (2009:261) further challenges nurse educators, CPD providers, employers and other concerned stakeholders to recognise that their clients who are nurses have varied learning styles and learning needs which must be addressed to enhance provision of effective and quality CPD programmes.

According to Nalle et al (2010:114), collaboration between clinical staff educators, nursing faculty, CPD providers and other stakeholders eventually leads to achievement of quality CPD programmes. In a study by Nalle et al (2010:112) that assessed the priority learning needs of registered nurses in Tennessee the findings indicate that the priority areas for continuing education identified by the nurses were leadership and management (28%), evidence-based practice (26%), professional issues (21%), advanced practice (21%), and acute medical-surgical nursing (18%). Less than 15% of

nurses prioritised any other aspect of professional learning or clinical practice for continuing education. The authors conclude that a comprehensive assessment of learner needs is the key to ensuring program effectiveness and improved professional knowledge, skills, and performance. The authors recommend a needs assessment as the first step in CPD planning as this ensures relevance of CPD for the potential audience and provides the foundation for development of programme objectives, content, and targeted learning activities and identification of appropriate varied teaching strategies.

Hughes (2005:14) emphasises that CPD providers and programmes should aim to ensure that nurses are able to critically assess their clinical practice and identify their own learning needs.

2.5.1.2 Self-concept

Nafukho et al (2005:10) support the self directed nature of adult learners by indicating that as an adult matures he/she has a need to be seen by others as being capable of directing him/herself. The authors note that this is vital for CPD programme providers as when the adult learner realises that others are imposing ideas and programmes on him/her, he/she may react by withdrawing from the learning experience.

According to Levette-Jones (2005:230) nurses' job satisfaction is directly linked to provision of quality health care, which is dependent on working with clinically competent and knowledgeable co-workers and the degree of organisational support provided for education and training. Health care institutions which address the learning needs of nurses have been shown to gain support from nurses who feel that they are recognised and valued for their contribution and this leads to nursing staff who are personally and professionally satisfied. This is further supported by McLaren, Woods, Boudioni, Lemma, Rees and Broadbent (2007:87) whose study findings show that practice managers' participation in CPD leads to provision of quality health care as a result of enhanced competence, confidence and motivation among the health care providers.

Nafukho et al (2005:10) is of the opinion that CPD providers should place more emphasis on involvement of adult learners in a process of self diagnosis of learning needs as adult learners are highly motivated to learn those things they see the need to

learn. The author further suggests other strategies which may include creating learning experiences for adults where they can progress from being dependent to independent or self directed learners. Silver, Campbell, Marlow and Sargeant (2008:25) affirm that as adult learners, health care professionals need to be able to self-assess their abilities in various practice domains and then choose learning activities that address the identified deficiencies in performance.

In addition Lee Sung (2006:39) supports self directed learning strategies as they are linked to positive emotions and self maintenance function among the learners. The author further notes that negative emotions, such as anxiety, fear, irritation, shame and guilt hinder learning as they temporarily narrow the scope of attention, cognition and action. Non-use of self directed strategies leads to development of negative emotions that impedes learning among adult learners.

Hays (2009:505) further emphasises that appreciation of self directed nature of adult learners is important as it enables the health care professionals to recognise what they do or do not know in relation to their practice.

2.5.1.3 Experience

Walkin (2006:16) supports the role of past experiences in adult learning by acknowledging that adults have a wealth of experiences which they bring into the learning situation and they tend to be disappointed if they are not given credit for this or if their prior learning and competencies are not utilised or recognised.

Knowles (1970:45) suggests to CPD programme providers to tap into adult learners' past experiences in the learning process by ensuring that the programmes designed emphasise use of experiential techniques. Value of adult learners' experiences with regard to adult education and approach to delivering CPD programmes may be achieved through situations rather than subject matter orientation (Nafukho et al 2005:11). Success of CPD programmes also relies on adult learners' prior knowledge (Bredeson 2003:9), wealth of potential experience of each learner, which can be built upon and incorporated into the learning experiences (Early & Bubb 2004:17).

2.5.1.4 Readiness to learn

The principle of readiness to learn recognises that adults just as children learn best those things that are necessary for them to know in order to advance from one phase of development to the next (Knowles 1970:46).

This principle is supported by Jukkala and Henly (2007:81) who through their study on the comfort, knowledge, and past experiences of maternity health care providers found that although rural health care providers are experienced with and comfortable performing basic skills required when caring for neonates, both physicians and nurses reported less experience and lower levels of comfort when performing complex skills such as chest compressions and intubation. The authors conclude that the requirements for these health care workers to perform more complex skills leads to development of their need to learn advanced procedures such as intubation.

2.5.1.5 Orientation to learning

Orientation to learning requires educators and CPD providers to develop learning experiences that are learner centered not focusing on the subject matter but on helping the adult learner to learn (Knowles 1970:48-49).This principle further implies that the most appropriate starting point for every learning experience for adult learners should be the problems and concerns that the adults have in their minds at the beginning of the programme (Knowles 1970:49). Silver et al (2008:26) support this principle and suggest that CPD providers should use Schön's reflection-in-action phase of the reflective learning cycle in the identification of learners' problems and concerns at the beginning of the programme (see figure 2.1).

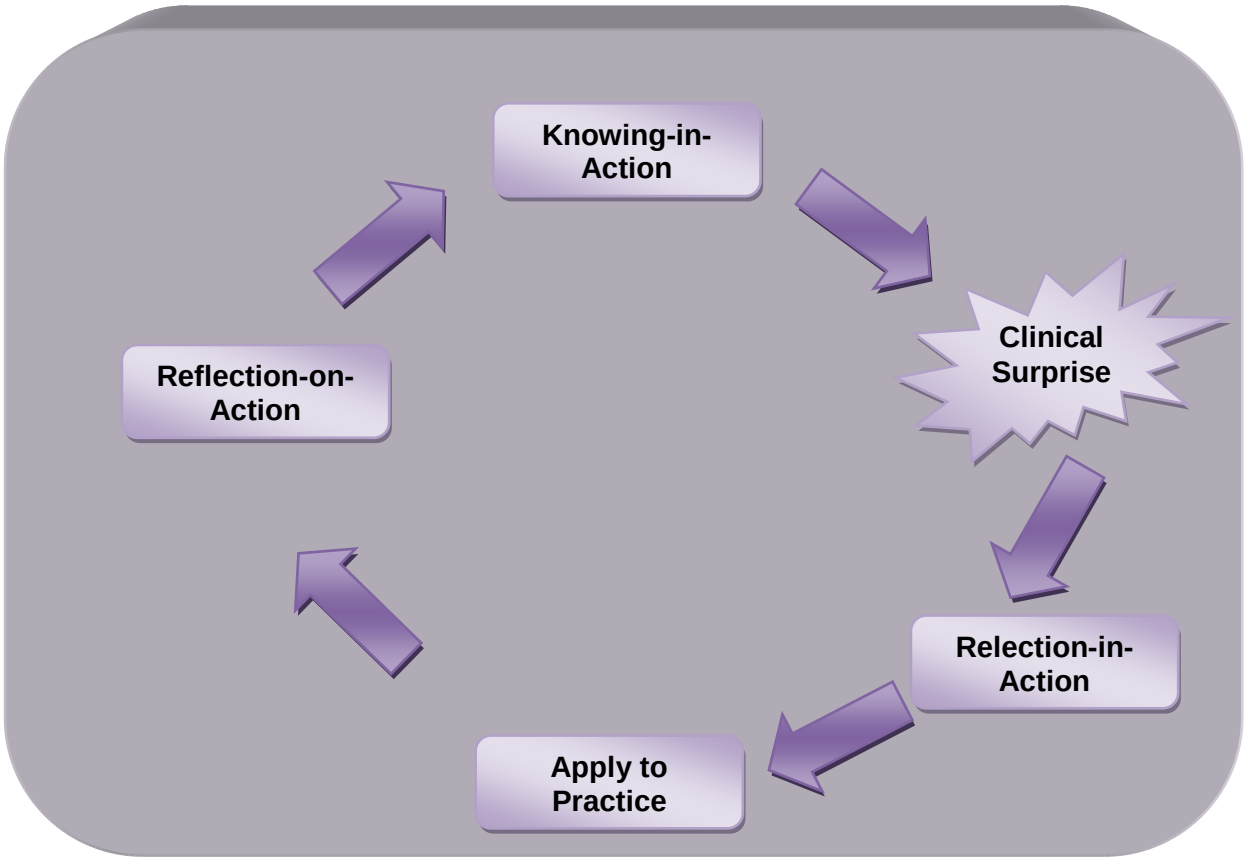

Figure 2.1 Schön's Reflection Cycle

Source: Silver et al (2008:26)

As shown in figure 2.1 the health care professional in the knowing in action phase encounters a patient/client who has a problem that he/she has the answer to. In the next phase he/she encounters a client with a problem he/she does not have an answer to which is the clinical surprise. The reflection-in-action phase guides the health care professional to know when they do not know the answers to problems while they are with a patient/client and to be able to identify the intervention for the problem (Silver et al 2008:27). The authors suggest use of practice journal, peer evaluations, discussion of clinical dilemmas with colleagues in small groups, and use of learning contracts during the reflection-in action phase. Application to practice phase follows after the identification of an intervention to the clinical surprise. The health care professional finally reflects on the impact of his/her action. The authors further note that this cycle is important in designing CPD programmes that are learner oriented and that will enable the adult learner to apply immediately the learned knowledge and skills.

2.5.1.6 Motivation

According to Knowles (1970:63) adults respond to both external and internal motivators and are motivated to keep growing and develop in relation to their career. It is important to note that as adults mature the motivation to learn is more from within (intrinsic motivators) such as increased job satisfaction, self esteem and quality of life. External motivators include better jobs, promotions and higher salaries (Hughes 2005:44).

Motivation is described by Walkin (2006:1) as the arousal, control and sustaining behavior necessary to satisfy a need or to attain a goal. The author further notes that a favourable attitude to learning can be developed in learners provided they are motivated to achieve some goal that they have been involved in setting themselves. The author identifies intrinsic motivators such as being challenged, need for mastery and curiosity and these the author notes that frequently lead an adult learner to put in greater effort in order to attain the set goal. Walkin (2006:2) indicates that extrinsic motivators lead to satisfaction of needs such as the desire for recognition, praise or financial reward and urges CPD providers and facilitators to offer a reward for effort driven by intrinsic motivation as it leads to inner satisfaction and a feeling of accomplishment after the adult learner overcomes a problem, acquires knowledge or goes though an experience.

Schweitzer and Krassa (2010:442) indicate that nurses have a positive perception of lifelong learning and are influenced by intrinsic and extrinsic motivators to participate in CPD activities though extrinsic reinforcement is a weak motivator, and intrinsic reinforcement is a key influence. The authors further explain that nurses' participation in CPD leads to increased job satisfaction, updated skills and decreased burnout.

Nalle et al (2010:108) note that increased knowledge, career advancement, and professional competence are more important motivators than compliance with certification or licensure requirements. Study findings by Yfantis et al (2010:199) support this statement and affirm that professional knowledge and enhancement of skills are the prime motivators for nurses to seek CPD. Other motivators include updating existing qualifications, increasing the status of the profession as a whole, improved patient care and enhanced professional relationships (Bramley 2006:117). Findings from a study by Nalle et al (2010:110) further reveal motivators for nurses' participation in CPD activities

to include personal and professional interest, licensure requirements, career advancement and job requirements.

2.6 IMPORTANCE OF CPD

The NCK and nursing training institutions in Kenya recognise the importance of nurses' participation in CPD and appreciate the role of CPD in reducing nurses' turnover and improving the quality and cost effectiveness of health care provision (NCK.Guidelines on continuing professional development. 2008:1). This is supported by Jukkala, Henly and Lindeke (2008:562) who explain that participation of nurses in CPD programmes leads to delivery of quality health care and lack of these programmes act as barriers to recruitment and retention of health care professionals.

2.6.1 Addressing nursing staff shortages

Cooper (2009:509) and Jukkala et al (2008:562) found that employers who offered opportunities for professional development for their nurses increased their retention.

According to the WHO (2006), Africa only has 3% of the world's health workforce and less than 1% of the world's financial resources for health. World Health Organization (2006:12) has shown that Sub-Saharan Africa alone needs 1.5 million more health workers to provide basic health care services for its population.

Erenstein and McCaffrey (2007:303) emphasise that encouraging professional development and increasing professional development opportunities for nurses leads to a positive work environment and may increase nurse retention. This may contribute positively towards ensuring retention of the health workforce in Africa and indirectly address the nursing shortage.

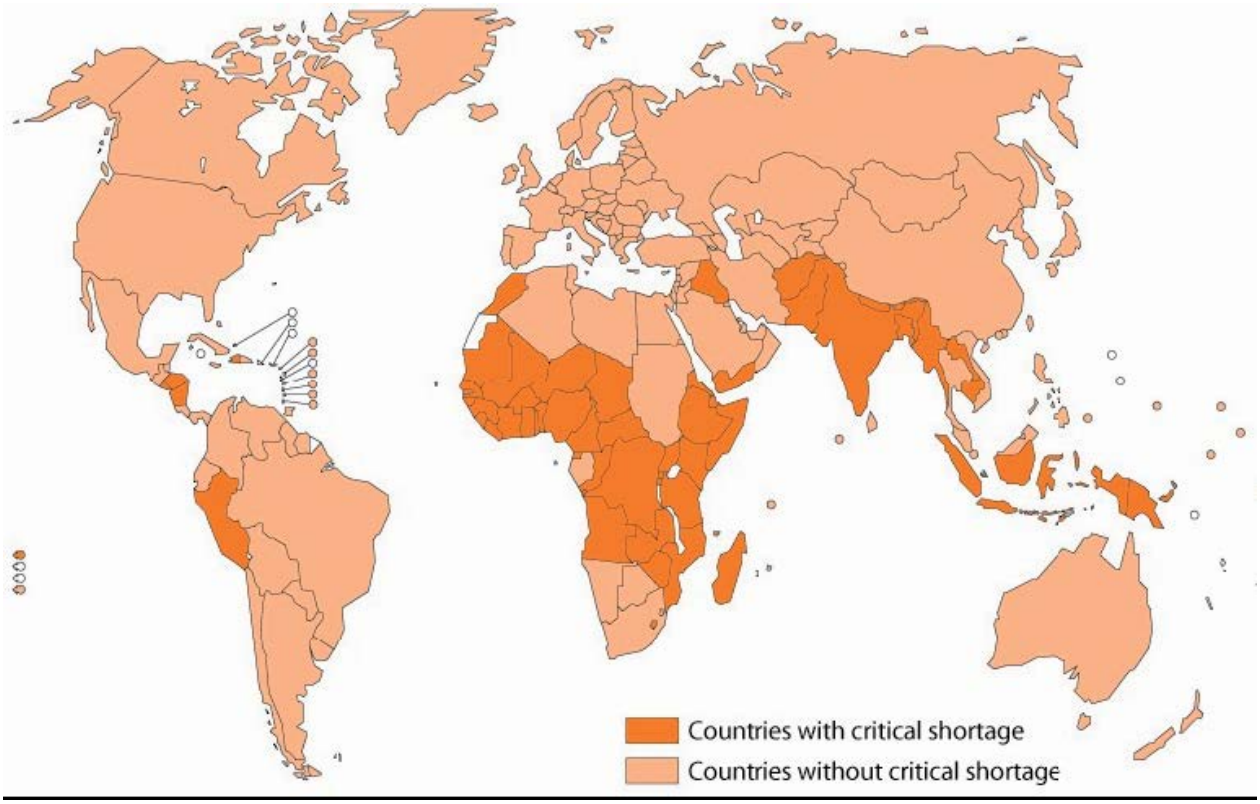

Figure 2.2 Shortages and misdistribution of health workers

Source: World Health Organization (2006:12*)*

Figure 2.2 depicts the areas where the shortage of nurses is most evident. The figure indicates that the African continent stands out as the one with the most critical shortage of nurses as compared to the American, Asian and European continents. From this figure it can be deduced that Kenya is one of those countries who suffers from a critical shortage of nurses with other African neighbouring countries such as Somalia, Ethiopia, Uganda and Tanzania.

2.6.2 Provision of quality and cost effective health care

Cheeseman (2009:340) state that a connection exists between quality and professional development and this is seen from the author's definition of quality. The author defines quality of health care as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Cheeseman 2009:340).

Cheeseman (2009:340) enquired on how nurses are able to maintain their current knowledge and keep up-to-date when the “current” knowledge and practice becomes outdated. The author asked the following question: How does the nurse adapt to continual changes in professional knowledge, skills and patient needs? The author suggests that the nurse acquires and maintains current knowledge in nursing practice by participating in ongoing educational activities related to clinical knowledge and professional issues, the nurse also seeks experiences to improve knowledge and competence in clinical skills appropriate to the practice setting. Dopp, Moulton, Rouse and Trewet (2010:1) emphasise that participation in CPD activities provides a measure of assurance that health care professionals are maintaining and updating their professional knowledge for ongoing competence to practice.

According to Schweitzer and Krassa (2010:441), continuing education has been supported as one means of maintaining competency in nursing care and also as a means of health professionals being able to adapt to changes in health care. In addition, Levette-Jones (2005:230) emphasises the fact that participation in CPD leads to experienced, knowledgeable and competent nurses who are always available to deliver quality and cost effective care. The author further asserts that an effectively prepared and continually updated nursing work force is essential to maintaining and improving quality of care as the major goal of continuing education is to improve and promote quality patient care.

2.7 PRACTICE OF CPD

According to Schostak, Davis, Hanson, Schostak, Brown, Driscoll, Starke and Jenkins (2010:587), professional development has seen health care professionals engage in different learning experiences that build on their basic education or prepare them to move to more specialised areas.

Participation in CPD focuses on increasing competence in specific areas or help in keeping abreast with technological changes, new procedures, or new products within the organisation thereby leading to improved patient care, individual and professional development. Griscti and Jacono (2006:450) concur, indicating that continuing education in nursing is necessary because of unprecedented growth in professional knowledge, rapid changes in the health care system and the consequent changes in

nurses' roles. Moreover, Tennant and Field (2004:167) explain that with increasing specialisation, nurses need in-depth knowledge of the speciality in which they work, and require new knowledge and skills to be able to adapt to changes in the health care system.

2.7.1 International perspective

Canadian registered nurses are consistently rated as the most trusted professionals by their patients. For the nurses to maintain this trust and provide consistent quality nursing care, they must keep up to date with knowledge and skills through participation in continuing competence programmes (Bassendowski & Petrucka 2009:553). In Canada, further continuing competence programmes are relatively new approaches for nurses. The health care jurisdictions in Canada focus on ongoing professional development, thereby requiring nurses to comply with ongoing practice advances through participation in continuing competence programmes. This programme uses an all inclusive approach that involves maintenance of a professional portfolio that is used to collect, synthesise, and analyse nurses' experiences, including documentation of peer feedback. The nurses are also required to identify their practice areas of strength and weakness, learning outcomes for the upcoming year, and develop a learning plan to meet the identified outcomes.

In the United States of America (USA), current CPD practice among nurses requires accumulation of contact hours which is a unit of measurement that describes 60 minutes of an organised learning activity that is either a didactic or clinical experience (DeSilets 2006:101). There is a variation on the different state boards' requirements for registered nurses (RNs) and licensed practical nurses though continuing education is currently the most common method of demonstrating professional competence. Twenty eight states (56% of the states of the USA) require evidence of participation in CPD for license renewal and certification and for demonstration of professional competence (Nalle et al 2010:108).

China has a mandatory continuous nursing education policy which was published by China's Ministry of Health in 2000. This policy specifies two learning categories which lead to participants' earning of credits.

- Category one is the participation in national or provincial level programmes (or outside country programmes) whereby RNs gain one credit, with every three hours of national-level programmes or six hours of attending provincial-level programmes.
- Category two is by participating in approved health care organisation-based programmes (or on-site programmes) and self-study or by publishing, RNs are awarded type two credit. On-site programmes (between one and two hours) can only be awarded 0.3–0.5 type two credits. RNs must meet 25 credits consisting of three to ten type one and 15–22 type two credits annually for re-registration after every two years (Xiao 2006:217).

Xiao (2006:217) explains that the policy adopted in China, was developed to address the scarce learning resources in nurses' workplaces and to encourage the nurses to participate in outside programmes provided by approved CPD programme providers. Xiao (2006:217) however faults the CPD policy for not fostering self directed learning as less credit is given to the workplace-based learning, self-study and creative learning such as publishing.

In Greece CPD has increasingly gained support as one of the most effective ways for ensuring personal and professional advancement. Greece further recognises CPD for the important role it plays in meeting the health service delivery needs and the learning needs of individual health care professionals. In Greece, CPD has been centralised and is the mandate of the labour force employment organisations, centres for vocational training and education departments of various ministries to provide CPD programmes for health care professionals (Yfantis et al 2010:194).

2.7.2 Kenya

In Kenya, nurses' participation in CPD activities is directed by the NCK, the regulatory body for nurses' training and practice in Kenya. In 2008, the NCK issued guidelines for CPD. The guidelines affirm the importance of nurses' participation in CPD as a means of ensuring continued competence and staying current in practice (NCK. Guidelines on continuing professional development. 2008:1). The guidelines also require all nurses in Kenya to attain a minimum of 20 hours of CPD per year to be licensed or be able to renew their licence of practice with the NCK. Nurses are required to renew their

practising licences every three years therefore requiring an accumulation of a minimum of 60 CPD hours (NCK. Guidelines on continuing professional development. 2008:1).

The NCK (Guidelines on continuing professional development. 2008:1) is committed to strengthening CPD in Kenya. Through its guidelines on CPD the NCK acknowledges that both the employer and the nurse have important roles in ensuring the achievement of quality health care. The employer has to provide an enabling environment to enhance learning, support nurses and provide forums for CPD. It is the responsibility of the nurse to look for appropriate and available CPD opportunities and ensure continued learning (NCK. Guidelines on continuing professional development. 2008:3). Furthermore, the NCK (Guidelines on continuing professional development. 2008:1) is committed to quality health care and development of nursing as a profession by ensuring provision of quality programmes to which CPD hours are assigned to guide nurses in caring for patients, families and the community.

Nurses in Kenya currently access CPD activities from various providers. However, the NCK is in the process of putting systems and policies in place that will ensure that in future the CPD providers are accredited as individuals or as organisations (NCK. Nursing Council of Kenya Newsletter. 2011:4).

2.8 CONCLUSION

This chapter described the literature review conducted for the study. The literature review indicated that nurses recognise and appreciate the importance of lifelong learning though this is influenced by individual, professional and institutional factors.

CPD in nursing is important as it indirectly addresses staff shortage through enhancing retention of nurses. Improved quality of health care, professional development and nurses' motivation are also linked to CPD.

Chapter 3 discusses the research design and methodology of the study.

Chapter 3

Research design and methodology

3.1 INTRODUCTION

This chapter describes the research design and methodology, including the population, sample, data collection and analysis, measures to ensure reliability and validity, and ethical considerations.

3.2 PURPOSE OF THE STUDY

The purpose of the study was to explore nurses' practices, perceptions and needs in relation to CPD in a selected public health care facility in the Kisumu East District, Nyanza province, Kenya.

In order to achieve the purpose, the objectives of the study were to:

- Explore the practice of CPD among nurses in the selected public health care facility.
- Explore nurses' perceptions of CPD programmes in the selected public health care facility.
- Describe the CPD needs of nurses in the selected public health care facility.

3.3 RESEARCH DESIGN

The research design and methodology refers to the techniques researchers use to structure a study, collect and analyse information that would answer the research questions and lead to achievement of the research objectives. The researcher adopted a quantitative approach and conducted an exploratory descriptive quantitative survey.

Burns and Grove (2001:26) describe quantitative research as “a formal, objective, systematic process in which numerical data are used to obtain information about the world”. Quantitative research can be descriptive, explorative, correlation, quasi-experimental, or experimental (Burns & Grove 2001:52). This study was explorative and descriptive as it attempted to explore and describe nurses’ perceptions of continuing professional development in a public health care facility in Kisumu, Kenya. This type of research design is used to generate new knowledge about concepts or topics on which limited or no research has been conducted.

LoBiondo-Wood and Haber (2006:202) describe a research design as the organisation of the research elements into a framework that ensures that the research question, purpose, literature review, theoretical framework and hypothesis interrelate. The degree to which this is ensured strengthens the study and the confidence of users of the findings and increases the potential of the application of the findings to practice. Creswell (2009:3) states that a research design involves plans and procedures that guide the research decisions from broad assumptions to the detailed methods of data collection and analysis. Creswell adds that there are three types of research designs, namely qualitative, quantitative and mixed methods. In order to make informed decisions on which designs to use to study a topic, the researcher is guided by the research paradigm, strategies or procedures of enquiry, and specific methods of data collection, analysis and interpretation (Creswell 2009:3).

Polit and Beck (2004:730) describe the research design as an “overall plan for addressing a research problem”. This study was quantitative, explorative and descriptive in nature.

The purpose of the research design is to provide answers to the research questions and to control extraneous variables that may interfere with the study findings (Basavanthappa 2007:164).

3.4 RESEARCH PARADIGM

A paradigm is a world-view or the philosophical beliefs that form the basis for all research. Paradigms consist of a set of assumptions on which the research questions are based (Mbwesa 2006:22). Creswell (2009:5) points out that the researcher needs to

identify the philosophical basis that will guide the study as it influences the practice of research and helps to explain why the researcher selected a qualitative, quantitative or mixed methods approach for the research. There are four philosophical approaches to research, namely post-positivism, constructionism, advocacy/participatory and pragmatism.

Post-positivist assumptions relate to quantitative research designs (Creswell 2009:6). In this study the researcher selected a quantitative research design. Quantitative research applies positivist or post-positivist paradigms (LoBiondo-Wood & Haber 2006:135). Table 3.1 lists the basic assumptions in positivism or post-positivism and how these paradigms apply to this study.

Table 3.1 Summary of positivist beliefs

Philosophical belief	**Description in positivism**	**Application to the study**
Epistemology: What we know, what is "truth" about the phenomenon	Truth sought via replicable observation, objectivism is valued	In-depth literature review was conducted which guided the study so that findings will replicate what has been found in other parts of the world.
Ontology: What is the nature of reality?	"Real reality" exists "out there" driven by natural laws	The practice, perception and needs of nurses in relation to CPD are the reality that exists and only requires to be measured to create a better understanding.
Voice of the researcher: What is the role of the researcher in the study?	The researcher is a neutral observer	The researcher's feelings and perceptions were not included in the data
Methodology: How is the evidence obtained?	Reductionism applied whereby experiences are reduced to specific concepts	The study used the six concepts identified in Knowles' adult learning theory to understand and describe nurses' practice, perception and needs in regard to CPD.

Adapted from LoBiondo-Wood and Haber (2006:134)

3.5 STRATEGIES OF ENQUIRY

Strategies of enquiry are also known as approaches to inquiry or research methodologies and are types of research designs or models that provide direction for

undertaking procedures in a study (Creswell 2009:11). The strategies of inquiry in quantitative studies include experimental designs or non-experimental designs, such as surveys. A non-experimental design is most commonly used in nursing research because most human attributes are not subject to change and it is, thus, not possible to experiment on them. Even if it were possible to manipulate human attributes, this would not always be ethical, thus making a non-experimental research design the design of choice (Polit & Beck 2004:188). The researcher selected a non-experimental study design as the study sought to explore nurses' attributes on CPD practice, perception and needs.

3.5.1 Survey

A survey provides quantitative or numeric descriptions of trends, attitudes or opinions of a population by studying a sample of that population. It includes cross-sectional or longitudinal studies, using questionnaires or structured interviews for data collection and eventually generalising findings from a sample to a population (Creswell 2009:12). This study was a cross-sectional survey that sought to describe the CPD practices, perceptions and needs of nurses in a selected public health care facility in Kisumu, Kenya.

According to Polit and Beck (2008:206), "a cross-sectional study involves the collection of data at one point in time". The phenomenon under study is captured during one period of data collection and these studies are appropriate for describing the status of phenomena or relationships among phenomena at a fixed point in time. In this study, data was collected using a structured self-administered questionnaire at one point in time, namely from 15 May to 15 June 2011. The researcher used Creswell's (2009:147) checklist as a guide in the survey (see table 3.2).

Researchers may use "descriptive or exploratory survey designs to search for accurate information about the characteristics of particular subjects, groups, institutions or situations or about the frequency of a phenomenon's occurrence, particularly when little is known about the phenomenon" (LoBiondo-Wood & Haber 2006:240). The researcher found limited research on CPD in the nursing profession in Kenya in the literature review (see chapter 1, table 1.1 and section 1.5). For this reason, a cross-sectional survey was considered the most appropriate design.

Table 3.2 Checklist for designing a survey

Question	Application /reference
Is the purpose of the survey design stated?	The purpose of the study was stated, namely to explore the CPD practices, perceptions and needs of nurses in the selected public health care facility in Kisumu, Kenya.
Are the reasons for choosing the design mentioned?	The reasons for selecting explorative descriptive quantitative survey as a design for this study were described.
Are the population and its size mentioned?	The population was described and comprised the 246 nurses who work in the selected public health care facility.
Is the nature of the survey (cross-sectional vs. longitudinal) identified?	In this study, a cross-sectional design was adopted as data was collected from the respondents at one point in time.
Will the population be stratified? If so, how?	No stratification of the study population was done.
How many people will be in the sample? On what basis was this number chosen?	A total of 178 respondents comprised the sample in the study.
What will the procedure be for sampling these individuals (e.g. random sampling, non-random sampling)?	Non-probability convenience sampling was used to select the nurses who participated in the study.
What instrument will be used in the survey? Who developed the instrument?	A self-administered questionnaire was used in the survey. It was developed by the researcher guided by the six principles of Knowles' adult learning theory
What are the content areas addressed in the survey? What scales are used?	**Content areas** were guided by the selected conceptual framework: participants' demographics; continuing professional development (CPD) practice; nurse's need to know; self-concept; experience; readiness to learn; orientation to learn, and motivation to learn. **Scale used:** Nominal (e.g. gender and marital status), ordinal (e.g. basic qualifications) and ratio (e.g. age) measurement scales were used to categorise data, where applicable.
What procedure will be used to pilot or field test the survey?	The questionnaire was pre-tested at Kisumu district hospital, which is a level four health care facility in the same district. A total of 15 nurses participated in the pre-test. The

Question	Application /reference
	feedback from the pre-test was used in the modification of the questionnaire; the collected pre-test data was not included in the analysed data.
What is the time line for administering the survey?	Data collection was done over a period of one month, from 15 May to 15 June 2011. This enabled the researcher to access nurses who may have been off due to shift work.
What are the variables in the study?	There were four independent variables (participants' demographics, CPD practice, perception and needs) and one dependent variable (participation in continuing professional development).
How do these variables cross-reference with the research questions and items on the survey?	Key independent variables were cross-tabulated against the dependent variable to find out if there was any statistically significant relationship in the response. Chi-square and Spearman's rho correlation coefficient were used, where applicable at 5% level of significance.
What specific steps will be taken in data analysis to: • Analyse returns • Check for response bias • Conduct a descriptive analysis	The data was analysed using the SPSS program version 17 and the first sets of analysis were largely descriptive using tables and graphs whereby data was converted to meaningful percentages. Secondly, the independent variables were cross-tabulated and further tested using Chi square and Spearman's rho correlation coefficient against the dependent variable to find out if there was any statistically significant relationship in the response at 5% level of significance. Response bias was checked and this was 38.2% (n=68) out of the total of 178 questionnaires administered.
How will the results be interpreted?	Descriptive results expressed as frequencies or percentages were presented to represent the proportion of the respondents that adhered to a certain viewpoint or practice in relation to CPD among nurses.

Adopted from Creswell (2009:147)

3.5.1.1 Exploratory research

Exploratory research is conducted where little is known about a phenomenon (Basavanthappa 2007:48). Exploratory studies are used to make "preliminary

investigations into relatively unknown areas of research, they attempt to gain new insight into phenomena" (Terre-Blanche, Durrheim & Painter 2006:44). Exploratory research is conducted when relatively little is known about the phenomenon under study or the research examines a new area of interest where the topic has been studied by others but not by the researcher (Shi 2008:45).

In this study, the researcher explored the CPD practices, perceptions and needs of nurses in the selected public health care facility in Kenya as no study was found on CPD in the nursing profession in Kenya (see chapter 1, section 1.5).

3.5.1.2 Descriptive research

Descriptive designs help to "identify challenges in current practice with a view to improving the practice outcomes for patients" (Burns & Grove 2003:248). When a study is not structured formally as an analytical or as an experimental study, thus implying that the study does not aim specifically to test a hypothesis, such a study is termed descriptive and belongs to the observational category of research (WHO 2001:16).

In descriptive studies the researcher's intention is to "portray an accurate picture of reality" (Stommel & Wills 2004:437). Burns and Grove (2001:795) add that descriptive designs "are explorative and descriptive of real-life phenomena, where they provide an accurate account of the characteristics of particular individuals, situations and groups".

Descriptive research is designed to "discover new meaning and to provide new knowledge where there is little known about the phenomenon of interest .It is a fact-finding investigation with interpretations" (Basavanthappa 2007:49). Mbwesa (2006:31) refers to descriptive research as "a type of research undertaken with the aim of describing characteristics of variables in a situation and the relevant aspects of the phenomena of interest".

The major purpose of descriptive research is "to describe the state of affairs as it exists" (Kombo & Tromp 2006:71). According to Polit and Beck (2006:192), the purpose of descriptive research is to "observe, explore, describe and document aspects of a situation as it naturally occurs". In this study, the researcher sought to describe the CPD

practices, perceptions and needs of nurses as it exists in a selected public health care facility in the Kisumu East district, Kenya in the time frame 15 May to 15 June 2011.

3.6 RESEARCH METHODOLOGY

The research methodology involves the forms of data collection, analysis and interpretation that researchers use as a guide to conduct their studies (Creswell 2009:15). This study used quantitative research methodology (see table 3.3).

Table 3.3 Quantitative research methods used in the study

Quantitative method	Application to study
• Pre-determined	The study followed a pre-determined schedule that was outlined in the study proposal.
• Instrument based questions	The researcher used a self-administered questionnaire with open-ended and closed questions for data collection.
• Performance data, attitude data, observational data and census data	The study involved the collection of attitudinal data as one of the objectives was to explore nurses' perceptions of CPD programmes. Performance data was represented in section B of the questionnaire which gathered data on CPD practice among nurses. Observational data was not included in this study as the participants used a self-administered questionnaire. Census data was captured in section A: Demographic data such as respondents' gender, age, qualifications, experience and position. These were then converted into meaningful percentages.
• Statistical analysis	A statistician analysed the data, using the SPSS program, version 17.
• Statistical interpretation	The raw data was converted into understandable numerical data and later cross-tabulation and statistical testing among the independent and dependent variables

Adopted from Creswell (2009:15)

Quantitative research is a process which consists of stating in advance the research questions or hypotheses, operationalising the concepts and devising or selecting in advance the methods of data collection and analysis, finally presenting the findings in numerical and/or statistical language (Parahoo 2006:48).

Quantitative research is “a scientific investigation that includes both experiments and other systematic methods that emphasise control and other quantified measures of performance” (Hoy 2010:1). Polit and Beck (2004:15) refer to quantitative research as “a set of orderly and disciplined procedures used to gain knowledge. Quantitative research designs are traditional, positivistic and scientific methods used to conduct research by using a series of steps according to a plan of action”.

3.7 RESEARCH AREA

The study area was a public health care facility in Kisumu east district, Nyanza province in Kenya. Kenya is a country in East Africa (see chapter 1, in figure 1.2).

3.7.1 Setting

The study was conducted in a selected public health care facility in the Kisumu East District, Nyanza province, Kenya. This hospital is fully funded by the government of Kenya and falls under the Ministry of Health as a level five health care facility. Level five health care facilities are at provincial level and have specialists and consultants who provide specialised care to patients and these facilities are also used as teaching and referral hospitals. The hospitals receive patients referred from the dispensaries, health care centres and the district hospitals in the province. The selected public health care facility is a 467-bed hospital and employs a total of 246 nurses, including 152 RNs and 94 ECNs (Hospital Records 2010:1).

The researcher interviewed the nursing officer in charge of education. The officer stated that the selected public health care facility had a multi-disciplinary CPD programme in place though there was no written policy on CPD. The Continuing Medical Education Committee (CME) was mandated to oversee the CPD of all professional personnel in the hospital. The nursing, physiotherapy, anaesthesia, pharmacy, radiology, medicine, ophthalmology and information technology departments were represented on the committee. The committee was chaired by a doctor anaesthetist. The CME committee developed an annual CME schedule for the topics to be covered by respective wards/units during the monthly multi-disciplinary CME sessions held in the hospital.

3.7.2 Population

In this study the population comprised the 246 nurses who worked in the selected public health care facility in the Kisumu East District, Nyanza province, Kenya.

The accessible population is “the aggregate of subjects that conforms to the designated population criteria and is accessible and available to the researcher as a pool for the study” (Basavanthappa 2007:190). The accessible population for this study comprised both registered and enrolled nurses working in the selected hospital. The selected hospital had a total of 246 nurses, including 152 RNs and 94 ECNs. During the data-collection period only 210 of the 246 nurses were on duty; 18 nurses were away on training and the remaining 18 were on leave. Twelve nurses were excluded as they were nurse interns while 20 nurses had not attended at least two CPD sessions as per the inclusion criteria. Out of the 246 nurses working in the selected health care facility, only 178 were eligible as the population for this study (Hospital Records 2010:1).

3.7.3 Accessible population

The researcher accessed the total population by obtaining permission from the director of nursing services office to look at the duty rota, CPD records and leave schedule for each ward/unit.

Of the 246 nurses working in the selected public health care facility, only 210 were on duty on different shifts during the period of the study. Eighteen nurses were away on training and the remaining 18 were away on leave (maternity, annual and sick leave). Thirty-two nurses who had not participated in at least two CPD sessions were not included in the sample. The accessible population for this study consisted of 178 nurses including RNs and ECNs.

3.7.4 Sample

A sample is “a set of the elements that make up the population” (LoBiondo-Wood & Haber 2006:263). Brink, Van der Walt and Van Rensburg (2006:124) describe a sample as “a part or a fraction of the whole or a subset of a larger set, selected by the

researcher to participate in a study. It consists of a selected group of elements of analysis from a defined population".

For this study, the sample comprised all nurses (RNs and ECNs) who were on duty during the time period of 15 May 2011 to 15 June 2011 who met the inclusion criteria as discussed in chapter 1 (see section 1.15).

The eligible criteria is defined as who is included in the sample (Polit & Beck 2008:338).In addition Stommel and Willis (2004:305) support this definition by stating that eligible criteria define who is eligible to become a study participant and who is not. Burns and Grove (2001:366) state that eligibility criteria include a list of characteristics essential for eligibility for membership in the target population.

LoBiondo-Wood and Haber (2006:278) emphasise that it is important to determine the sample size before the study is conducted. The authors further advise that in order to enhance representativeness of the population, a researcher should always use a larger sample size as opposed to a smaller sample size that produces less accurate results. Polit and Beck (2008:348) add that the larger the sample size the more representative of the population it is likely to be, and the smaller the sample error.

A total of 178 nurses, who met the inclusion criteria and were accessible to the researcher, comprised the sample size for this study (see section 1.15).

3.7.5 Sampling

A sample is a set of elements that make up the population and an element is the most basic unit about which information is collected. Individuals are the most common elements in nursing research (LoBiondo-Wood & Haber 2006:263). A researcher is not able to examine every element in the population of study, thus it is important to sample properly to be able to draw inferences and make generalisations about the population (LoBiondo-Wood & Haber 2006:263).

Sampling is the process of selecting a portion or subset of the designated population to represent the entire population (Basavanthappa 2007:191). In this study nurses comprised the elements about which information on CPD was collected. A sampling design refers to the technique, plan or procedure that the researcher adopts in selecting

sampling units or elements from which inferences about the population is drawn (Basavanthappa 2007:191).

Non-probability sampling involves non-random methods to draw elements from the population for inclusion in the study (LoBiondo-Wood & Haber 2006:264). In this study, the researcher used convenience sampling in the selection of the health care facility and in the selection of nurses.

Convenience sampling is the use of most readily accessible persons or objects as subjects in a study (LoBiondo-Wood & Haber 2006:265). The researcher selected the public health care facility on the basis of easy accessibility due to geographical location. Of the population of 246 nurses, 178 were selected as the eligible sample guided by the inclusion criteria, namely that the respondents

- had to be working in the selected public health care facility in Kisumu, Kenya
- must have worked in the selected hospital for more than twelve months
- had to be registered by the NCK as either enrolled nurse or registered nurse
- must have attended at least two CPD sessions

The researcher obtained permission from the director of nursing services to access the list of all nurses who were on the facility's pay roll. The researcher then marked with a highlighter all nurses who were either RNs or ECNs, and excluded other categories such as assistants, interns and volunteers. The researcher then checked this list against the leave record and deleted those who were either on annual leave, study leave and sick leave for the period 15 May to 15 June 2011. The researcher then compiled a list of nurses who were present during this time and carefully selected the participants to increase the representativeness of the sample and the external validity of the findings.

The exclusion criteria applied in this study was as follows:

- categories of other health care workers such as assistants, interns and volunteers
- nurses who were either on annual leave, study leave and sick leave for the period 15 May to 15 June 2011

- nurses who had worked in the selected public health care facility for less than twelve months
- nurses who had not attended two or more CPD sessions

3.8 DATA COLLECTION

Data collection is the "precise, systematic gathering of specific information relevant to the research purpose, objectives, questions or hypothesis of the study with the aim of proving or refuting some facts" (Kombo & Tromp 2006:99). There are different ways to collect information about research subjects, and should be objective and systematic. Objective means that the data must not be influenced by who collects the information and systematic requires that all the data must be collected in the same way. Data-collection methods include observation, interviews, questionnaires and records or available data (LoBiondo-Wood & Haber 2006:317).

3.8.1 Research technique

Survey research relies almost entirely on questioning subjects with either structured interviews or questionnaires (LoBiondo-Wood & Haber 2006:325). In this study, the researcher collected data using a self-administered structured questionnaire, which enhanced objectivity and ensured that the participants answered the same questions thus preventing bias (see annexure B2).

The researcher collected data for a period of one month from the 15 May to 15 June 2011. The nurses were given the questionnaires as they reported for duty in their respective wards for either day or night shift. The researcher followed the following process during data collection:

- The different wards were allocated specific numbers to prevent any confusion and to ensure that all the questionnaires were collected after completion.
- The researcher drew up a list the respondents per ward/unit and allocated a questionnaire number against their names. The researcher handed out the questionnaires according to the names and numbers on the compiled list. This list was kept in a locked cabinet to which only the researcher had access.

- Each nurse in charge of the different wards collected the questionnaires at the end of the day or night shift, using a different list on which only the questionnaire numbers appeared.
- Anonymity was maintained as only the researcher had access to the list of names related to the questionnaire numbers.

Questionnaires are pencil-and-paper instruments designed to gather data from individuals about knowledge, attitudes, beliefs and feelings (LoBiondo-Wood & Haber 2006:325). Questionnaires enhance collection of information from a large sample thus increasing representativeness. Confidentiality is also upheld and there is no opportunity for interviewer bias (Kombo & Tromp 2006:89). Questionnaires may be structured or unstructured.

The questionnaire was designed to address specific objectives or questions guided by the six principles in the conceptual framework. The structured /closed questions were accompanied by a list of possible alternatives from which the respondents selected the answers that best described their situation. This prevented bias as all the respondents were asked the same questions with similar possible responses to choose from.

The questionnaire (see annexure B2) was divided into eight sections guided by the six principles in the conceptual framework and the literature review as follows:

Section A: Demographical information
Section B: Continuing professional development (CPD) practice
Section C: Nurses' need to know
Section D: Self-concept
Section E: Experience
Section F: Readiness to learn
Section G: Orientation to learn
Section H: Motivation to learn

The researcher's supervisor and colleagues who are experts in the presentation of CPD programmes evaluated the questionnaire for external, internal and face validity.

3.9 VALIDITY AND RELIABILITY

The research design and instruments must reflect the concepts of the theory being tested to ensure that conclusions drawn from a study are valid and reliable to advance the development of nursing theory and evidence-based practice (LoBiondo-Wood & Haber 2006:336).

3.9.1 Validity

Validity ensures that research results are credible based on precision of what the researcher wanted to measure and this enhances the extent to which the research forms a basis for further research, practice and theory development. Both design and instrument validity need to address validity to ensure credibility and dependability of the research results (LoBiondo-Wood & Haber 2006:209).

3.9.1.1 Design validity

Internal and external validity are the criteria used to assess design validity. Internal validity determines whether independent variables have an effect on the dependent variable. Threats to internal validity include history, maturation, testing, instrumentation, mortality, and selection bias. These threats are common in experimental designs, but should be considered in all quantitative designs (LoBiondo-Wood & Haber 2006:209). The study design was not experimental since no treatment was offered to the subjects, but selection bias could be a possible threat to internal validity. The researcher avoided selection bias by using *non-probability convenience sampling* with inclusion criteria in selecting the respondents.

External validity deals with generalisation of findings to other populations and environmental conditions. It questions under what conditions and with what types of subjects the same results can be expected to occur. Factors that affect external validity include selection of subjects (effects of selection), study conditions (reactive effects) and type of observation also known as effects of testing (LoBiondo-Wood & Haber 2006:213). Representativeness is usually enhanced by use of randomisation when sampling from the accessible population. A representative sample is one whose key characteristics closely approximate those of the population (LoBiondo-Wood & Haber 2006:264).In this study, representativeness was assured by using inclusion criteria to

sample the subjects. This would enable generalisation of the research findings to the target population and to other similar environments.

3.9.1.2 Instrument validity

Instrument validity refers to whether a measurement instrument accurately measures what it is supposed to measure. A valid instrument correctly reflects the concept it is supposed to measure. The researcher needs to ensure that content validity, criterion-related validity and construct validity are addressed in the measurement instrument (LoBiondo-Wood & Haber 2006:338).

According to LoBiondo-Wood and Haber (2006:338), content validity provides "the framework and basis for formulating the items that adequately represents the content. Criterion-related validity enhances correlation of the respondents' performance on the instrument to their actual behaviour; construct validity relates to the extent that a theoretical construct or trait will be measured". In this regard the researcher was guided by Knowles' Adult Learning Theory in formulating the items in the questionnaire.

In order to enhance instrument validity, the researcher conducted a pre-test. Pre-testing refers to the empirical trial and measuring of the effectiveness of the data-collection instrument as it cannot be perfected purely on the basis of critical scrutiny by the designer or researcher (Basavanthappa 2007:439). According to Basavanthappa (2007:439), the purpose of a pilot study (pre-test) is to determine whether:

- The instrument would elicit responses required to achieve the research objectives.
- The content of the instrument is relevant and adequate.
- The wording of questions is clear and suited to the respondents' understanding.
- The question structure and sequencing is consistent.

Pre-testing should be done by administering the research instrument to 15-20 respondents drawn from the population universum (Basavanthappa 2007:439). In this study, the researcher administered the questionnaire to 15 nurses in a separate public health care facility in the Kisumu east district, Nyanza province, Kenya. The questionnaires were administered for a period of one week from 26 April to 2 May 2011.

The data collected in the pre-test were analysed to determine whether they could lead to achievement of the research objectives. The researcher then modified the content, question structure and sequencing based on the pre-test findings. The findings from the pre-test were not included in the statistics of the main study.

3.9.2 Reliability

Reliability is the extent to which the research instrument yields the same results on repeated measures indicating that the instrument is stable. Reliability is concerned with stability, homogeneity and equivalence. An instrument is said to be stable when similar results are obtained on separate administrations of the instrument. Homogeneity or internal consistency means that items in the scale measure the same concept. Equivalence is the consistency between alternate forms of the tool (LoBiondo-Wood & Haber 2006:352).

3.10 ETHICAL CONSIDERATIONS

Ethics deals with matters of right and wrong. *Collins English Dictionary* (2009:533) defines ethics as “a social, religious, or civil code of behaviour considered correct, especially that of a particular group, profession, or individual”. LoBiondo-Wood and Haber (2006:563) refer to ethics as “the theory or discipline dealing with principles of moral values and moral conduct”. In this study, ethics refers to the researcher’s moral responsibility towards the institutions involved, respondents, and individual scientific integrity. During the study the researcher upheld moral responsibility towards respondents guided by the Belmont Report and Nuremberg Code.

3.10.1 The Belmont Report, 1979

The Belmont Report is a statement of basic ethical principles and guidelines that should assist in resolving the ethical problems that surround the conduct of research with human subjects (Department of Health, Education, and Welfare 1979:1). The three basic ethical principles are respect for persons, beneficence, and justice.

3.10.1.1 Respect for persons

Respect for persons means that:

- Individuals should be treated as autonomous agents.
- Persons with diminished autonomy are entitled to protection.

To respect autonomy is to give weight to autonomous persons' considered opinions and choices while refraining from obstructing their actions unless they are clearly detrimental to others. Autonomy recognises that people are capable of making correct decisions or choices without external control (LoBiondo-Wood & Haber 2006:291).

Respect for persons requires that subjects, to the degree that they are capable, be given the opportunity to choose whether to participate in a study or not. This opportunity is provided through informed consent (Department of Health, Education, and Welfare 1979:8).

The researcher ensured autonomy by informing the respondents about the purpose and nature of the study (see annexure B1). This allowed the respondents to voluntarily give informed consent to participate in the study (see annexure B1). The respondents also had the right to withdraw from the study at any time without penalty.

3.10.1.2 Beneficence

Beneficence is an obligation to benefit others and maximise possible benefits. Persons are treated in an ethical manner, their decisions are respected, they are protected from harm and efforts are made to secure their well being (LoBiondo-Wood & Haber 2006:291). In order to achieve this, the researcher did preliminary tests and obtained background information by conducting a comprehensive literature review in an effort to avoid harm to the respondents.

3.10.1.3 Justice

Justice refers to the right to fair treatment (LoBiondo-Wood & Haber 2006:291). This means that participants should be treated fairly and should receive what they are owed.

The researcher ensured the fair selection of the respondents according to inclusion criteria and for reasons directly related to the problem under study.

3.10.2 Respondents' rights

The researcher ensured the respondents' right to confidentiality, voluntary participation, informed consent, and protection from harm.

3.10.2.1 Confidentiality

Confidentiality means that respondents' individual identities will not be linked to the information they provide and will not be publicly divulged (LoBiondo-Wood & Haber 2006:298). The list containing the respondents' names and questionnaire number against them was only available to the researcher and the supervisor. The researcher used this list for the distribution of the questionnaires and a list containing only the questionnaire numbers was used when collecting the completed questionnaires. Confidentiality was also ensured because the respondents did not write their names on the questionnaire.

3.10.2.2 Nuremberg Code, 1975

The Nuremberg Code (LoBiondo-Wood & Haber 2006:291) stipulates that voluntary consent to participate is essential; research should yield fruitful results for the good of society; the anticipated results should justify the research; all unnecessary physical and mental suffering and injury should be avoided, and adequate preparations should be made and facilities provided to protect the subjects from injury, disability or death.

Table 3.5 indicates the application of the Nuremberg Code principles to the study.

3.10.3 Permission

The researcher obtained written permission to conduct the study from the University of South Africa (UNISA) Research and Ethics Committee and the Great Lakes University of Kisumu Ethics Review Committee in Kenya. Permission was also obtained from the

Provincial Medical Officer of Health in the Nyanza province and the selected public health care facility (see annexure A).

Table 3.4 Application of the Nuremberg Code to the study

Principles of the Nuremberg Code	Application to this study
• Voluntary consent is essential	Before participation in the study, the respondents were informed of the nature and purpose of the study, and that participation was voluntary, and gave informed consent to participate (see annexure B1).
• Study should yield fruitful results for the good of society	The findings will be used to inform nurses, nurse managers, health facility administrators, CPD facilitators, policy makers and other stakeholders on the practices, perceptions and needs of nurses in relation to CPD. The findings will be used to design CPD programmes with the aim of improving patient outcomes.
• Anticipated results should justify the study	The researcher conducted an extensive literature review that guided the conduct of the study.
• Study should avoid all unnecessary physical and mental suffering and injury	There were no perceived physical or mental risks or harm to the respondents in this study.
• No study should be conducted if it is believed death or disabling injury will occur	The respondents received full information about the study. There were no perceived risks that could lead to disability or death.
• The risk should never exceed the humanitarian importance of study	No risks were involved in the study.
• Adequate preparations should be made and facilities provided to protect the subjects from injury, disability or death	The study involved no anticipated risks.
• The human subjects should be at liberty to bring the experiment to an end	The respondents were informed that they were free to participate in or withdraw from the study at any time without any penalty.
• At any point of the study a researcher should end the study if there is reason to believe that continuing would cause injury, disability or death to the subjects.	Permission to conduct the study was sought and granted from UNISA Ethics Review Committee, Great Lakes University of Kisumu Ethics Review Committee and the selected public health care facility research and training committee. This ensured that at no point did the study put the respondents at risk

Adapted from LoBiondo-Wood and Haber (2006:291)

3.10.4 Scientific integrity of the research

The researcher complied with the Helsinki Declaration principles to guide the study thereby enhancing the scientific integrity. Table 3.5 presents the application of the Helsinki Declaration principles (World Medical Organization 1996:1) to the study. In addition to the principles, the researcher ensured scientific integrity by not undertaking the study for personal gain or allowing negative effects on the respondents. The researcher also acknowledged prior research findings by referencing (LoBiondo-Wood & Haber 2006:306). The respondents were informed of the purpose and nature of the study and that participation was voluntary, and gave informed consent to participate in the study (see annexure B1).

Table 3.5 Application of the Helsinki Declaration principles to the study

Basic principles of the Helsinki Declaration	Application to the study
• Biomedical research involving human subjects must conform to accepted scientific principles and should be based on adequately performed laboratory and animal experimentation and on a thorough knowledge of the scientific literature.	The study subjects were nurses. The researcher consulted available literature on adult learning and CPD among nurses to form the knowledge base that guided the study.
• The design and performance of each experimental procedure involving human subjects should be clearly formulated in an experimental protocol which should be transmitted to a specially appointed independent committee for consideration, comment and guidance.	The researcher wrote a well-designed proposal which was submitted to UNISA and a local ethics review committee for review and approval for conducting the study. The ethical review committees approved the study and permission was given to proceed with the study (see annexure A).
• Research involving human subjects should be conducted only by scientifically qualified persons and under the supervision of a clinically competent medical person.	The researcher had completed and passed the research module and the proposal and was attached to a qualified supervisor.
• The research protocol should always contain a statement of the ethical considerations involved and should indicate that the principles enunciated in the present declaration are complied with.	The researcher addressed the ethical considerations guiding this study in the research proposal.

Adapted from the World Medical Organization (1996:1)

3.11 CONCLUSION

This chapter described the research design and method of the study, including the research paradigm, study area, population, sample and sampling, data collection and analysis, and ethical considerations.

Chapter 4 discusses the data analysis and interpretation.

Chapter 4

Data analysis and interpretation

4.1 INTRODUCTION

Chapter 3 described the research design and methodology of the study. This chapter discusses the data analysis and interpretation and the results.

The purpose of the study was to explore nurses' practices, perceptions and needs in relation to CPD in a public health care facility in the Kisumu East District, Nyanza province, Kenya.

In order to achieve the purpose, the objectives of the study were to:

- Explore the practice of CPD among nurses in the selected public health care facility in Kisumu east district, Nyanza province, Kenya.
- Explore nurses' perceptions of CPD programmes in the selected public health care facility.
- Describe the CPD needs of nurses in the selected public health care facility.

4.2 DATA ANALYSIS

Of the 178 distributed questionnaires, only 110 were completed. A statistician analysed the 110 completed questionnaires using the Statistical Package for the Social Sciences (SPSS) computer programme version 17.0 and converted the output into percentages collated in the form of tables, bar graphs and pie charts in order to make the data meaningful.

The first step in evaluating the completed questionnaires was data cleaning. Any questionnaire that was incomplete or completed incorrectly was removed from the rest

and not included in the analysis. From the 110 questionnaires, 99 were completed correctly and comprised data for analysis.

The first level of analysis was mainly descriptive, using tables and charts that presented the frequencies of independent variables (demographic data, CPD practices, perceptions and needs). Further analysis of data was done by cross-tabulations and statistical testing of independent variables against the dependent variable by use of chi-square and Spearman's rho correlation coefficients, where applicable.

Where the scale scores used were ordinal, the Spearman's rho coefficient was used to determine whether differences in the responses were statistically significant or not. Chi-square was used where variables were categorised (Polit & Beck 2008:579).

The researcher used a self-administered questionnaire to collect data. The data was analysed and presented according to the eight sections of the questionnaire:

Section A: Demographical information
Section B: Continuing professional development (CPD) practice
Section C: Nurses' need to know
Section D: Self-concept
Section E: Experience
Section F: Readiness to learn
Section G: Orientation to learn
Section H: Motivation to learn

4.3 SECTION A: DEMOGRAPHIC INFORMATION

This section covered the respondents' gender, age, marital status, qualifications and years of experience, area of specialisation and current position.

4.3.1 Gender distribution

The respondents were asked to indicate their gender. Figure 4.1 depicts the respondents' gender distribution.

Of the respondents, 16.2% (n=16) were males and 83.8% (n=83) were females. This is consistent with the general demographical distribution of Kenya, in which the population has more females than males. The distribution of males and females in the Kenyan population according to the 2009 census revealed 19,417,639 females and 19,192,458 males (Ministry of Planning, Population Development & Vision 2030, Kenya 2010:37).

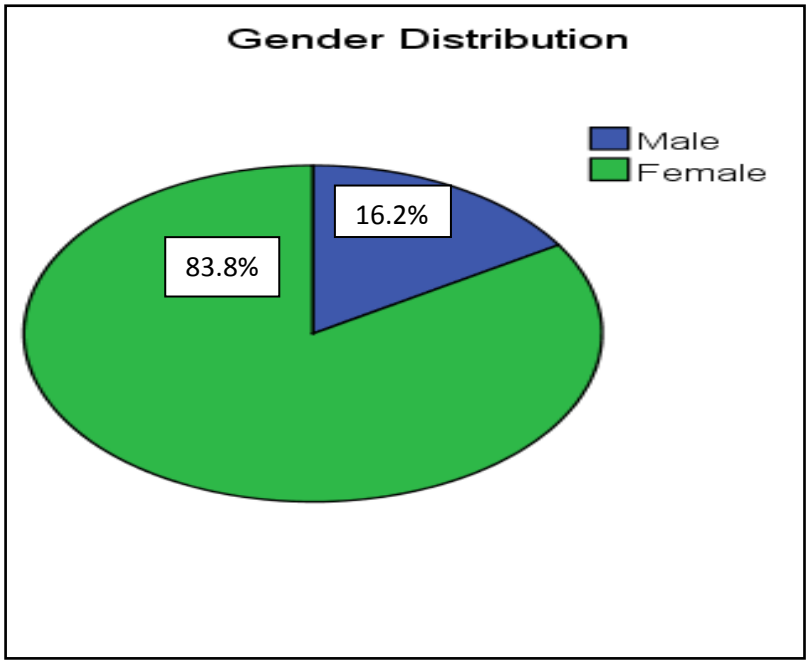

Figure 4.1 Respondents' gender distribution (N=99)

These results are consistent with Penz, D'Arcy, Stewart, Kosteniuk, Morgan and Smith's (2007:59) findings on barriers to participation in continuing education among rural and remote nurses that 93.5% of the participants were females. A 2008 census of registered nurses in the United States of America found the number of males in nursing lower than females but it was on the increase. The overall registered nurses ratio of women to men was 15 to 1, but it was 10 to 1 among the RNs who graduated after 1990 (Department of Health, USA 2008:online). Halfer (2011:5) found the majority (98%) of the study participants were female.

The findings of this study show that there are more females than males in the selected public health care facility, with the female to male nurse ratio of 5 to 1.

4.3.1.1 Gender and participation in continuing professional development

Cross-tabulation was done between gender (independent variable) and participation in CPD (dependent variable) and the findings revealed that 12.5% (n=11) males and 87.5% (n=77) females participated while 45.5% (n=5) males and 54.5% (n=6) females did not participate in CPD programmes (see table 4.1).

Table 4.1 Respondents' gender and participation in CPD (N=99)

Participation in CPD	Males	Females
Yes	12.5%	87.5%
No	45.5%	54.5%

4.3.2 Respondents' age distribution

The respondents were asked to indicate their age in years. Figure 4.2 depicts the respondents' age distribution. Of the respondents, 5.1% (n=5) were 21-24 years old; 21.2% (n=21) were 25-30; 14.1% (n=14) were 31-35; 11.1% (n=11) were 36-40; 17.2% (n=17) were 41-45, and 31.3% (n=31) were 46 and older.

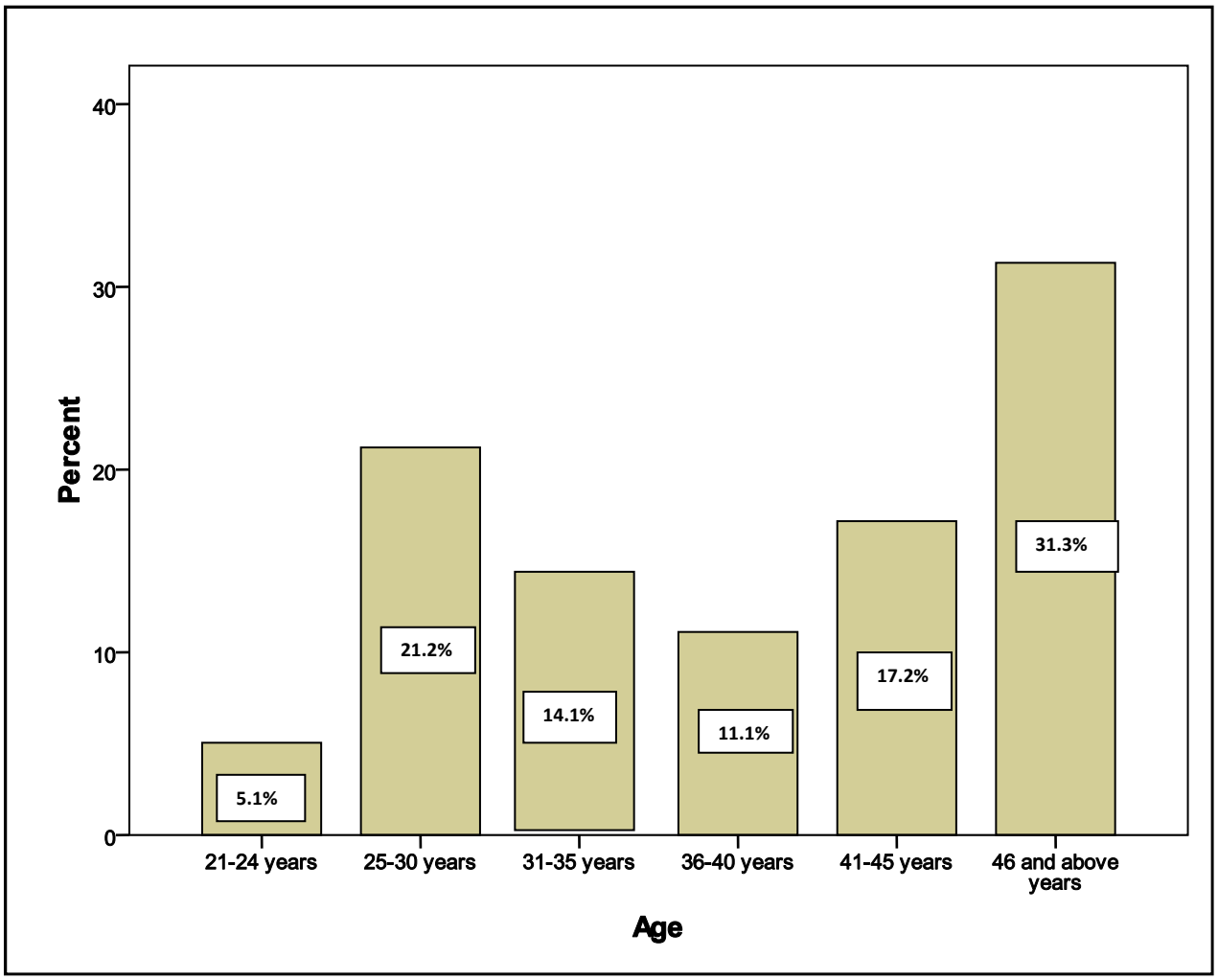

Figure 4.2 Respondents' age distribution (N=99)

The findings showed that of the respondents, almost 49% (n=48) were 41 years and older while only 25% (n=25) were 31 to 40 years old. This is consistent with Penz et al's (2007:60) findings that the majority of the nurses (68%) were aged 40 years and older. Of the respondents, 31.3% were 46 years and older. This finding is also consistent with Gill (2007:1084) who found that one third of the nursing workforce in the United Kingdom was over 50 years of age, and it was estimated that 40% of nurses would be 50 years or older by the year 2010.

4.3.2.1 Age distribution and participation in continuing professional development

Cross-tabulation and further statistical testing using chi-square was done to describe the relationship between age (independent variable) and participation in continuing professional development (dependent variable). Table 4.2 shows that among the respondents who participated in CPD, 3.4% (n=3) were 21-24 years old; 19.3% (n=17) were 25-30; 14.8% (n=13) were 31-35; 11.4% (n=10) were 36-40; 18.2% (n=16) were 41-45, and the majority 33.0% (n=29) were 46 years and older.

Of the respondents who did not participate in CPD, 18.2% (n=2) were 21-24 years old; 36.4% (n=4) were 25-30; 9.1% (n=1) were 31-35; 9.1% (n=1) were 36-40; 9.1% (n=1) were 41-45, and 18.2% (n=2) were 46 and older.

Table 4.2 Age distribution and participation in CPD (N=99)

Participation in CPD	21-24 yrs	25-30 yrs	31-35 yrs	36-40 yrs	41-45 yrs	46 yrs and above
Yes	3.4%	19.3%	14.8%	11.4%	18.2%	33.0%
No	18.2%	36.4%	9.1%	9.1%	9.1%	18.2%

P value: 0.214 (p >.001).

The findings showed that the age of the respondents did not have any significant effect on their participation in CPD. Banning and Starfford (2008:181) and Kubsch, Henniges, Lorenzoni, Eckardt and Oleniczak (2003:211) found that nurses' age had no impact on their participation in CPD. Gill (2007:1086) found that age had no impact on participation in CPD and nurses were willing to participate in learning irrespective of their age. However, Penz et al (2007: 63) found that registered nurses between 40 and 49 years of age were almost twice as likely to report difficulties in participating in CPD activities than registered nurses who were 60 years and older.

4.3.3 Marital status of respondents

The respondents were asked to indicate their marital status. Of the respondents, 15.2% (n=15) were single, 74.7% (n=74) were married, 1.0% (n=1) were divorced and 9.1% (n=9) were widowed. Figure 4.3 depicts the respondents' marital status.

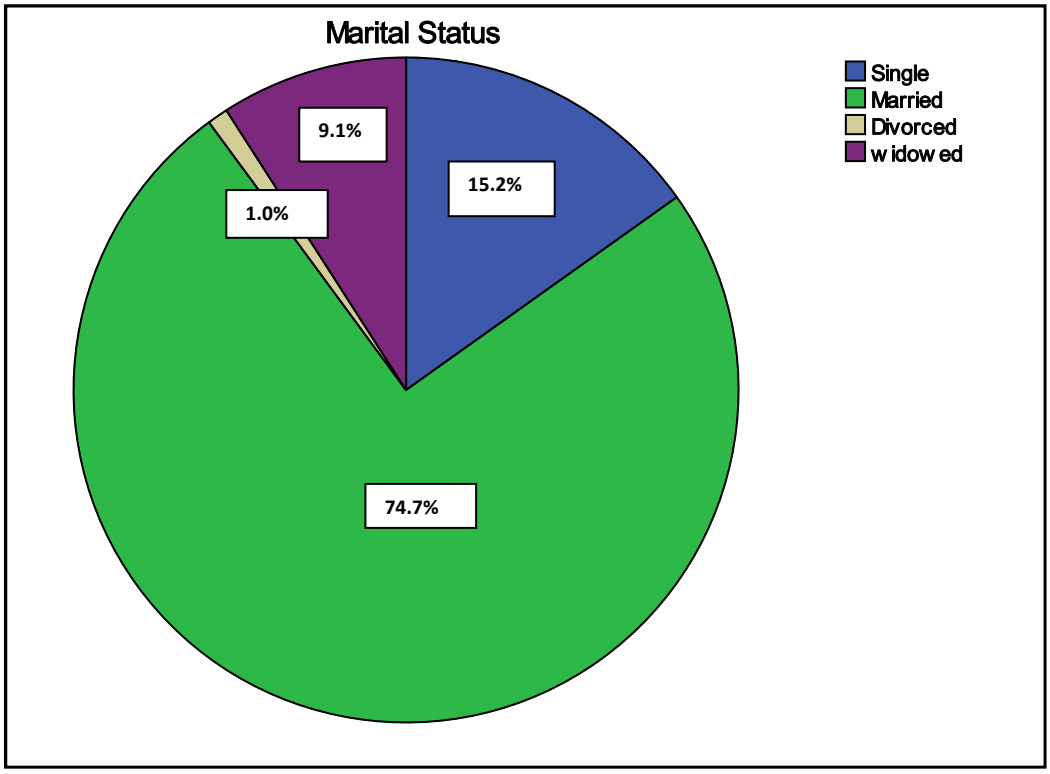

Figure 4.3 Respondents' marital status (N=99)

These results concur with Penz et al's (2007:60) finding that 81.2% of the participants were married or in common-law relationships. In their study on deterrents to nurses' participation in CPD, however, Schweitzer and Krassa (2010:443) found that child care and home/family responsibilities among married respondents were the most frequent barriers to their participation in CPD.

4.3.3.1 Marital status and participation in CPD

Cross-tabulation between marital status (independent variable) and participation in CPD (dependent variable) revealed that the marital status of respondents who participated in

CPD included 13.6% (n=12) who were single, 75.0% (n=66) were married, 1.1% (n=1) were divorced and 10.2% (n=9) were widowed. Among the respondents who did not participate in CPD, 27.3% (n=3) were single while 72.7% (n=8) were married (see table 4.3).

Table 4.3 Marital status and participation in CPD (N=99)

Participation in CPD	Single	Married	Divorced	Widowed
Yes	13.6%	75.0%	1.1%	10.2%
No	27.3%	72.7%	0%	0%

The Chi-square was 2.45, level of significance of .363. p is >.001. This showed that the respondents' marital status did not affect participation in CPD.

The findings of this study are supported by Kubsch et al (2003:211) who indicate that marital status did not affect participation of nurses in CPD. On the contrary, Penz et al (2007:64) reported that there was reduced participation in CPD activities among registered nurses who were single, divorced, or widowed.

4.3.4 Respondents' basic qualifications

The respondents were asked to indicate their basic qualifications. Of the respondents, 29.3% (n=29) were Enrolled Community Health Nurses; 52.5% (n=52) were Registered Community Health Nurses; 12.1% (n=12) had a Bachelor of Science degree in Nursing, while 6.1% (n=6) indicated that they possessed other basic qualifications (see figure 4.4).

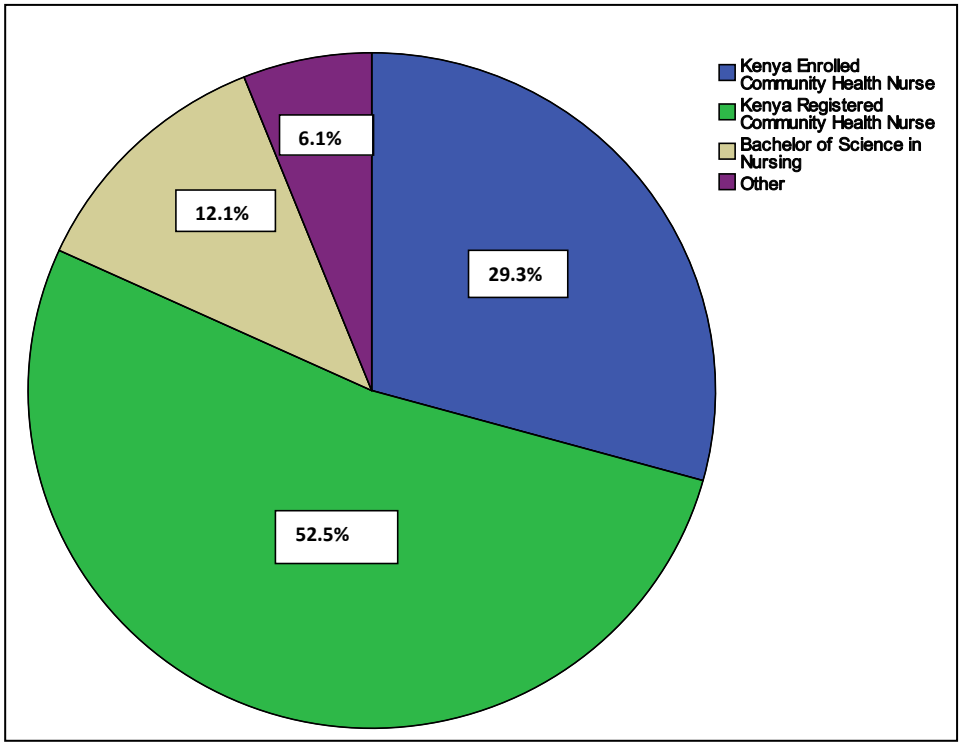

Figure 4.4 Respondents' basic qualifications (N=99)

The majority of the respondents (52.5%) indicated that they possessed Registered Community Health Nurse as their basic qualifications. This is consistent with the provincial nursing officer's report which indicated that 50% of nurses in Nyanza province possessed Kenya Registered Community Health Nurse as their basic qualifications. This was possible with the phasing out of the certificate in nursing and upgrading of certificate nurses to diploma nurse (Kenya Ministry of Health 2009:14).

4.3.4.1 Respondents' basic qualifications and participation in CPD

The respondents' basic qualifications (independent variable) and participation in CPD (dependent variable) were tested using the two-tailed Spearman's rho correlation coefficient. The findings revealed that no relationship between basic qualifications and participation in CPD.

Of the respondents who participated in CPD, 29.5% (n=26) possessed Enrolled Community Nurse as their basic qualification; 53.4% (n=47) possessed Kenya

Registered Community Health Nurse (diploma); 11.4% (n=10) had Bachelor of Science in Nursing degrees, and 5.7% (n=5) indicated that they held other qualifications.
Among the respondents who did not participate in CPD, 27.3% (n=3) possessed Enrolled Community Nurse as their basic qualification; 45.5% (n=5) possessed Registered Community Nurse; 18.2% (n=2) had Bachelor of Science in Nursing degrees, while 9.1% (n=1) reported that they had other basic qualifications (see table 4.4).

Table 4.4 Respondents' basic qualification and participation in CPD (N=99)

Participation in CPD	Kenya Enrolled Community Health Nurse	Kenya Registered Community Health Nurse	Bachelor of Science in Nursing	Other qualifications
Yes	29.5%	53.4%	11.4%	5.7%
No	27.3%	45.5%	18.2%	9.1%

Chi square is .698, $p > .05$

The results indicate that level of basic qualifications had no impact on participation in CPD. These findings are inconsistent with Penz et al (2007:63) who indicate that registered nurses who had attained higher levels of nursing education were more likely to encounter difficulties in participation in CPD than their diploma counterparts.

4.3.5 Respondents' highest level of completed nursing qualifications

The respondents were asked to indicate their highest level of completed nursing qualifications. Of the respondents, 16.2% (n=16) had certificates in nursing; 63.6% (n=63) had Diplomas; 14.1% (n=14) had undergraduate degrees; 1.0% (n=1) had a master's degree, and 5.1% (n=5) had other qualifications (see figure 4.5).

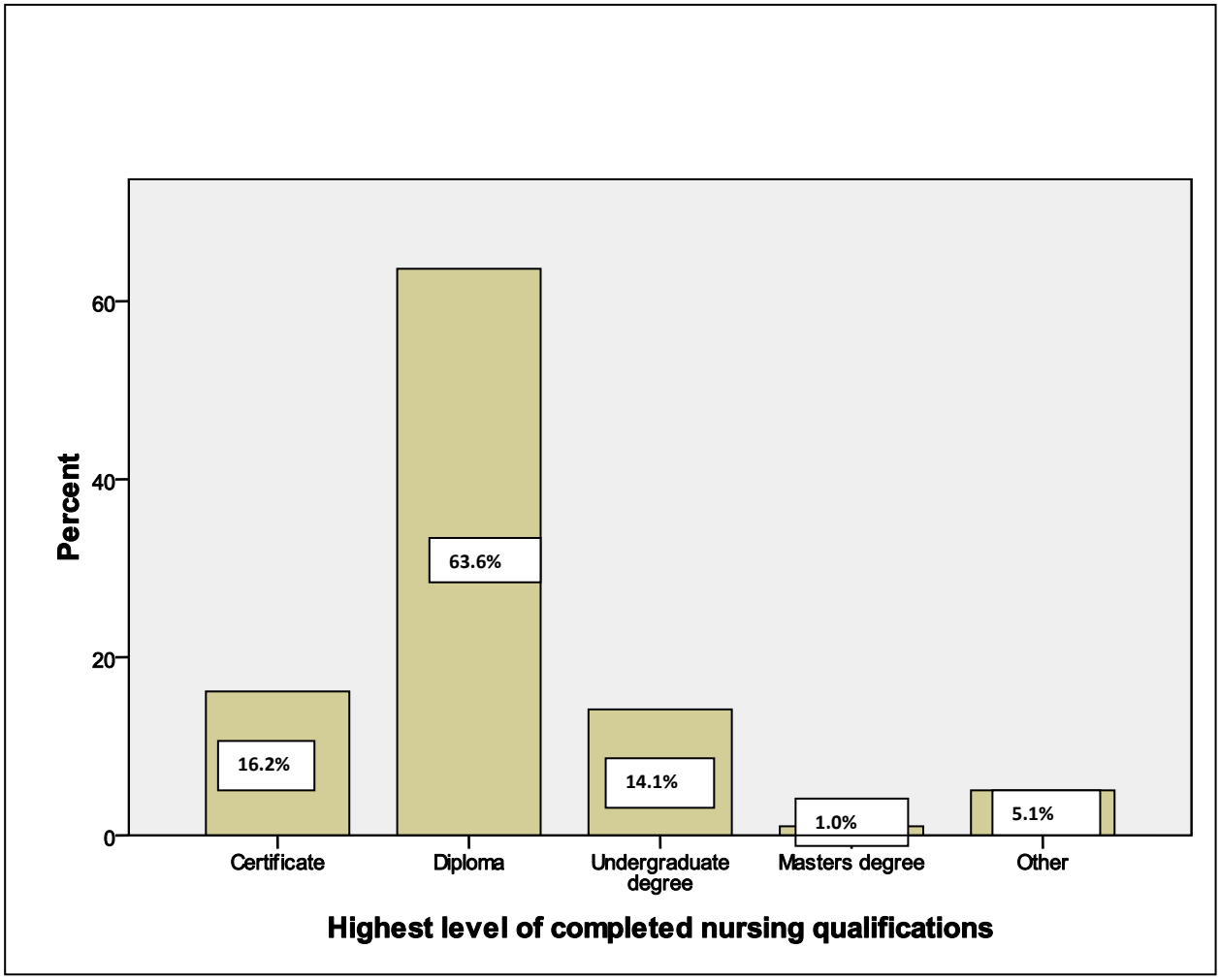

Figure 4.5 Respondents' highest level of completed nursing qualifications (N=99)

Of the respondents, 63.6% (n=63) indicated that they possessed diplomas as their highest completed nursing qualification. Penz et al (2007:59) found that 73.8% of the participants had diploma in nursing as their highest level of nursing qualification.

4.3.5.1 Highest level of completed nursing qualifications and participation in CPD

The respondents' highest completed nursing qualifications (independent variable) and participation in CPD (dependent variable) were tested using the Spearman's rho correlation coefficient. The findings showed that there was no relationship between the respondents' highest level of completed nursing qualification and participation in CPD.

Table 4.5 indicates that of the respondents who participated in CPD, 63.6% (n=56) had a diploma as the highest level of completed nursing qualification, followed by 17.0% (n=15) who had certificates in nursing; 13.6% (n=12) with undergraduate degrees, and 5.7% (n=5) with other qualifications. None (0.0%) of the respondents who had a master's degree in nursing as the highest qualification participated in CPD programmes. The findings further revealed that of the respondents who did not participate in CPD, 9.1% (n=1) had certificates in nursing as their highest qualification; 63.6% (n=7) had diplomas, 18.2% (n=2) had undergraduate degrees, and 9.1% (n=1) had a master's degree in nursing.

Table 4.5 Respondents' highest level of completed nursing qualification and participation in CPD (N=99)

Participation in CPD	Certificate	Diploma	Undergraduate degree	Master's degree	Other
Yes	17.0%	63.6%	13.6%	0.0%	5.7%
No	9.1%	63.6%	18.2%	9.1%	0.0%

Chi-square of 9.151 with a significance value of .112

Therefore p is > .05. There was no significant relationship between respondents' highest level of completed qualification and participation in CPD.

This was contrary to Kubsch et al's (2003:211) findings that nurses with higher qualifications accrued more CPD contact hours than their counterparts with lower qualifications. Penz et al (2007:63) indicate that nurses with higher levels of education were more likely to encounter barriers to participation in CPD than nurses with lower qualifications. Nalle et al (2010:112) found that nurses' highest completed qualifications determined their participation in CPD.

4.3.6 Attainment of highest level of qualifications

The respondents were asked to indicate how many years after their basic qualifications they achieved their highest level of nursing qualification (see figure 4.6).

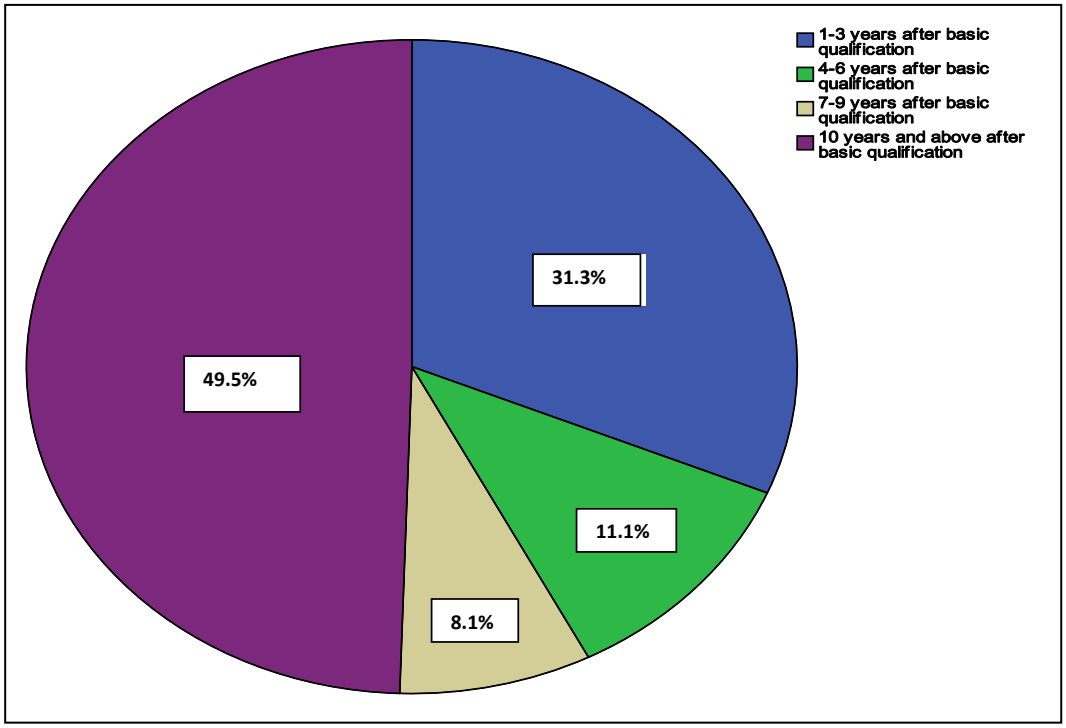

Figure 4.6 Respondents' attainment of highest qualifications

Of the respondents, 31.3% (n=31) had acquired qualifications between 1-3 years after their basic qualifications; 11.1% (n=11) between 4-6 years; 8.1% (n=8) between 7-9 years, and 49.5% (n=49) had acquired the qualifications 10 years and more after completion of their basic qualifications. These findings are consistent with the NCK (Guidelines on Training of Enrolled Community Health Nurses. 2003:1) guidelines on the phasing out of the ECN programme therefore all ECNs were required to upgrade to diplomas in nursing.

4.3.6.1 Attainment of highest qualifications and participation in CPD

The respondents' attainment of highest qualifications was cross-tabulated against participation in CPD (see table 4.6).

Table 4.6 Respondents' attainment of highest qualification and participation in CPD (N=99)

Attainment of highest qualification and participation in CPD	Years after basic qualification			
	1-3 years	4-6 years	7-9 years	10 years and above
Yes	29.5% (n=26)	12.5% (n=11)	8.0%(n=7)	50.0%(n=44)
No	45.5% (n=5)	0%(n=0)	9.1%(n=1)	45.5%(n=5)

Significance value .580, p >.001

The findings showed that of the respondents, 29.5% (n=26) who attained their highest qualifications 1-3 years after their basic qualifications participated in CPD while 50% (n=44) of those who obtained their highest qualifications 10 years and more after their basic qualifications participated in CPD. Cross-tabulation revealed a significance value of .580 which is greater than the p value of .001. The findings showed that the number of years between obtaining basic qualifications and the highest qualification did not have an impact on the respondents' participation in CPD.

Gill (2007:1086) found that the number of years since graduation had no impact on participation in CPD.

4.3.7 Respondents' years of experience after basic qualification

The respondents were asked to indicate how many years of experience they had after obtaining their basic qualifications. Of the respondents, 11.1% (n=11) had 1-2 years of experience; 7.1% (n=7) had 3-4 years; 9.1% (n=9) had 4-5 years; 71% (n=7) had 6-7 years; 4.0% (n=4) had 8-9 years, and 61.6% (n=61) had 10 years and more (see figure 4.7).

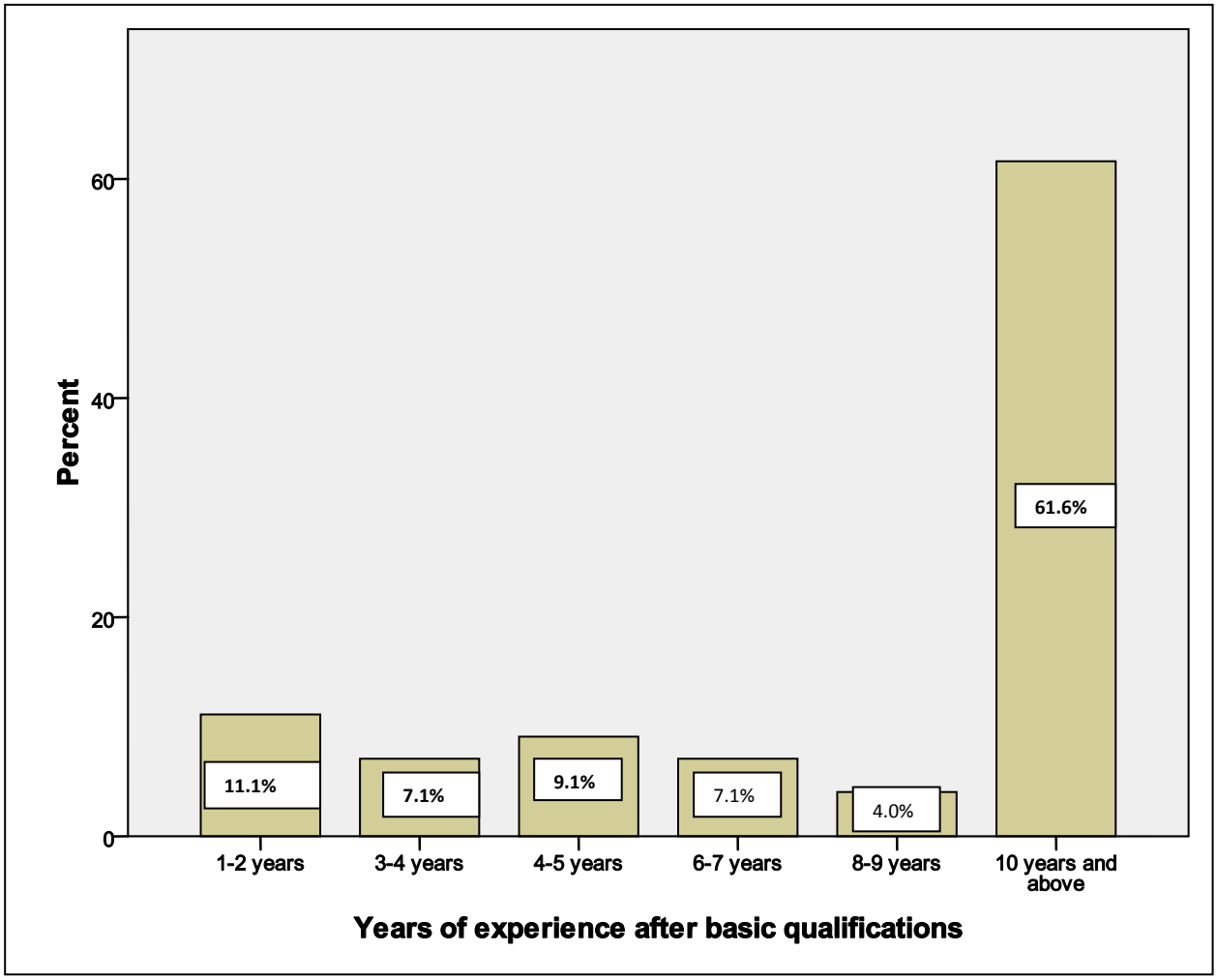

Figure 4.7 Respondents' years of experience after basic qualifications (N=99)

The study found that of the respondents, 61.6% (n=61) had 10 years and more experience and 11.1% (n=11) had 1-2 years of experience. Zeller, Doutrich, Guido and Hoeksel (2011:409) found that new nurses were leaving the nursing profession at a turnover rate of over 50% due to inadequate socialisation, stress associated with chronic understaffing and high acuity, insufficient orientation, salary and scheduling problems, hostile or negative attitudes of co-workers, and inadequate support from supervisors.

4.3.7.1 Years of experience after basic qualification and participation in CPD

The respondents' years of experience after obtaining their basic qualifications (independent variable) and participation in CPD (dependent variable) were tested using

Chi-square. The findings revealed that there was no relationship between years of experience after basic qualification and participation in CPD (see table 4.7).

Table 4.7 Respondents' years of experience after basic qualification and participation in CPD (N=99)

Participation in CPD	1-2 years	3-4 years	4-5 years	6-7 years	8-9 years	10 years and above
Yes	8.0%	6.8%	10.2%	6.8%	4.5%	63.6%
No	36.4%	9.1%	0.0%	9.1%	0.0%	45.5%

Chi-square 9.395 significance value .106, p >.001

Of the respondents who participated in CPD, 63.6% (n=56) had 10 years and more experience; 10.2% (n=9) had 4-5 years; 8.0% (n=7) had 1-2 years; 6.8% (n=6) had 6-7 years; 6.8% (n=6) had 3-4 years; 4.5% (n=4) had 8-9 years' experience after attaining their basic qualifications.

Of the respondents who did not participate in CPD, 45.5% (n=5) had 10 years and more experience after obtaining their basic qualification; 36.4% (n=4) had 1-2 years of experience; 9.1% (n=1) had 3-4 years, and 9.1% (n=1) had 6-7 years.

This indicated that there was less participation in CPD among respondents who had 8-9 years of experience while 63.6% of those who had 10 years and more participated in CPD. Kubsch et al (2003:211) found that nurses' years of experience had no impact on participation in CPD.

4.3.8 Respondents' area of specialisation (N=99)

The respondents were asked to indicate their area of specialisation. Of the respondents, 52.5% (n=52) indicated general nursing; 10.1% (n=10) indicated surgical nursing; 10.1% (n=10) indicated maternal health, and 6.1% (n=6) stated medical nursing. A further 3.0% (n=3) indicated paediatric nursing; 1.0% (n=1) each indicated neonatal health, mental health and psychiatric nursing, and critical care nursing; 2.0% (n=2)

indicated accident and emergency nursing, and 13.1% (n=13) indicated having specialised in other areas. Figure 4.8 illustrates the respondents' areas of specialisation.

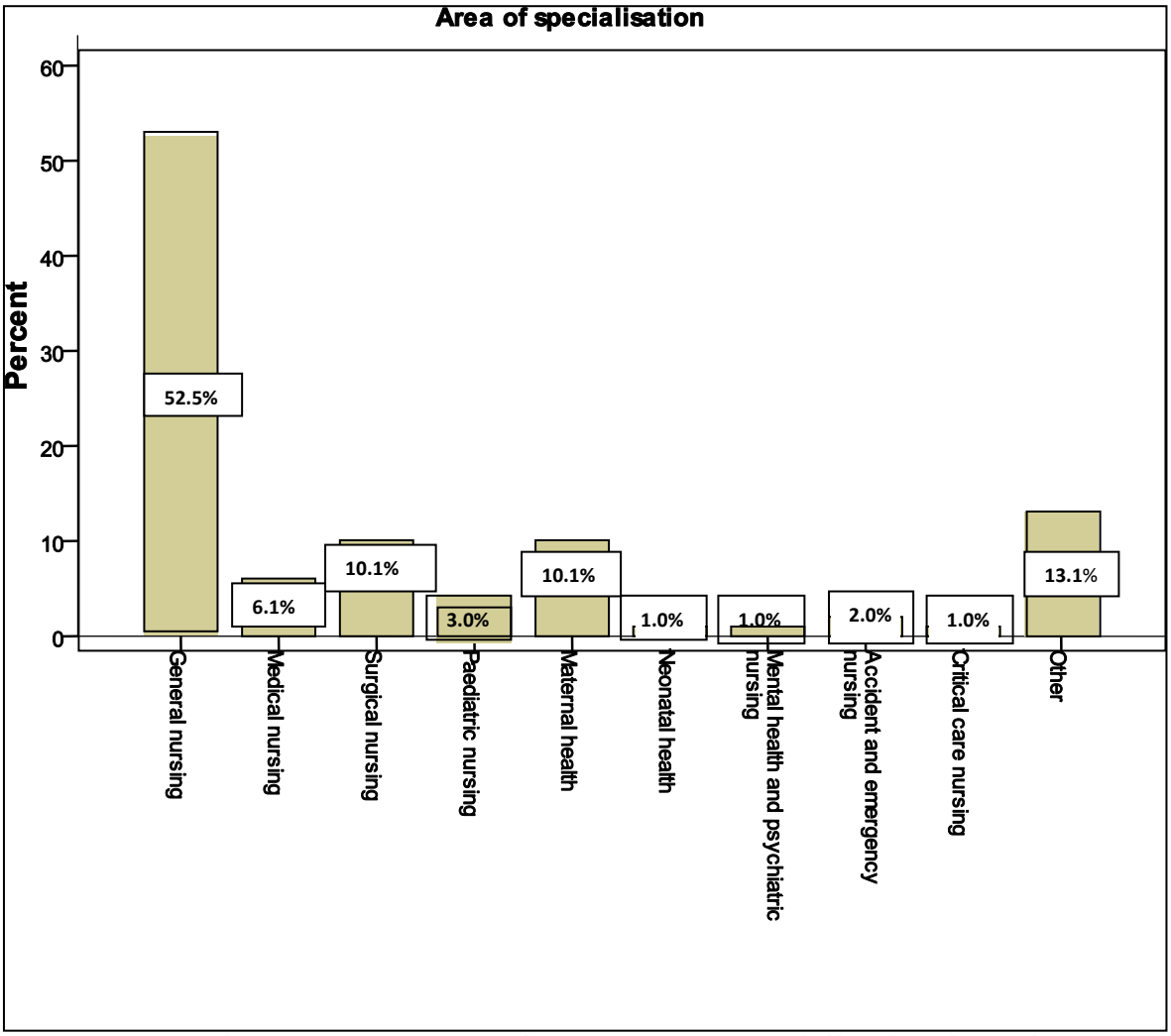

Figure 4.8 Respondents' area of specialisation (N=99)

Regarding the attitude of nurses towards CPD in Greece, Yfantis et al (2010:196) found that 43% of the participants worked in emergency departments, 22% in surgical clinic, 17% in the intensive care ward, and 9% in the pathology and the cardiology clinic.

4.3.8.1 Respondents' area of specialisation and participation in CPD

The respondents' area of specialisation was cross-tabulated with participation in CPD. Of the respondents who participated in CPD, 52.3% (n=46) had specialised in general nursing, while only 1.1% (n=1) had specialised in neonatal nursing and mental health

and psychiatric nursing. Of the respondents, 54.6% (n=6) who had specialised in general nursing did not participate in CPD (see table 4.8).

Table 4.8 Respondents' area of specialisation and participation in CPD (N=99)

Area of specialisation	Participation in CPD	
	Yes	No
General nursing	52.3%	54.6%
Medical nursing	6.8%	0.0%
Surgical nursing	10.2%	9.1%
Paediatric nursing	2.3%	9.1%
Maternal health	10.2%	9.1%
Neonatal health	1.1%	0.0%
Mental health and psychiatric nursing	1.1%	0.0%
Accident and emergency nursing	2.3%	0.0%
Critical care nursing	0.0%	9.1%
Other areas of specialisation	13.6%	9.1%

Of the respondents who participated in CPD, 52.3% (n=46) had specialised in general nursing. Kubsch et al (2003:211) found that the area of specialisation had no impact on nurses' participation in CPD.

4.3.9 Respondents' position in the unit

The respondents were asked to indicate their position in the ward/unit (see figure 4.9). Of the respondents, 66.7% (n=66) were staff nurses; 17.2% (n=17) were nursing officers in charge; 6.1% (n=6) were hospital day supervisors; 1.0% (n=1) were hospital night supervisors; 1.0% (n=1) were education nursing officers; 1.0% (n=1) were director of nursing, and 7.1% (n=7) held other positions.

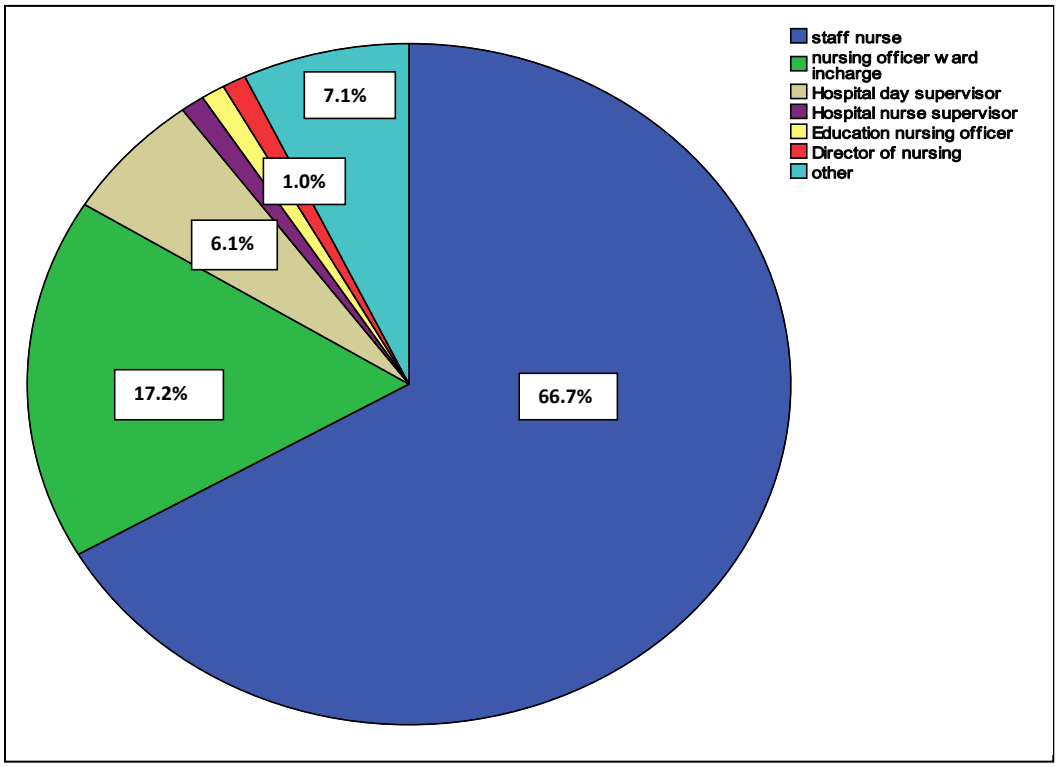

Figure 4.9 Respondents' position in the ward/unit (N=99)

These findings are supported by Halfer (2011:6) who found that 94% of the participants were in a staff nurse position; 3% were in a managerial position, and 2% were in advanced practice nurse position. In Nalle et al's (2010:110) study, the majority of the participants was staff nurses (27%), followed by nurse practitioners (17%), and academic faculty (13%).

4.3.9.1 Respondents' position and their participation in CPD

The respondents' position in the ward was cross-tabulated against participation in CPD, tested using chi-square. Of the respondents who participated in CPD, 64.8% (n=57) were staff nurses; 17.0% (n=15) were nursing officer in charge of wards; 6.8% (n=6) were hospital day supervisor,s;1.1% (n=1) were hospital night supervisors; 1.1% (n=1) were education nursing officers; 1.1% (n=1) were directors of nursing, and 8.0% (n=7) held other positions. Of the respondents who did not participate in CPD, 81.8% (n=9) were staff nurses while 18.2% (n=2) were nursing officers in charge of wards (see table 4.9).

The results indicated that the respondents' position did not impact on their participation in CPD. The majority (64.8%) of the respondents who participated in CPD were staff nurses.

Table 4.9 Respondents' position and participation in CPD (N=99)

Respondents' position in the ward/unit	Participation in CPD	
	Yes	No
Staff nurse	64.8%	81.8%
Nursing officer in charge of ward	17.0%	18.2%
Hospital day supervisor	6.8%	0.0%
Hospital night supervisor	1.1%	0.0%
Education nursing officer	1.1%	0.0%
Director of nursing	1.1%	0.0%
Other	8.0%	0.0%

Chi-square is 2.433; the significance value is .876 p > .001

These results are contrary to Nalle et al's (2010:113) finding that the participants' position in the facility determined their participation in CPD and the type of learning needs identified by them.

4.4 SECTION B: CONTINUING PROFESSIONAL DEVELOPMENT PRACTICE

This section outlines the respondents' CPD practice in terms of: percentage of respondents who participated in CPD; when the respondents last participated in a CPD activity; reason for participating in CPD; number of CPD hours attended in the last year; CPD hours would like to attend per year; topic of last CPD attended; whether the topic was related to the current speciality of practice; role in the last CPD attended; sponsor of last CPD attended, and factors considered to be barriers to respondents' participation in CPD.

Casey and Clark (2009:25) point out that the rapid change in the health care environment requires nurses to be updated with knowledge and skills to be able to safely respond to the health care needs of the patients, clients and community they serve. Casey and Clark add further that the changes and increasing demands on health care provision require nurses to provide evidence-based care, use critical thinking, and demonstrate advanced leadership and decision-making skills. Nurses may acquire and retain these skills by involvement in and commitment to CPD.

4.4.1 Respondents' participation in CPD

The respondents were asked to indicate whether they participated in CPD or not. Figure 4.10 indicates that of the respondents, 88.9% (n=88) participated in CPD while 11.1% (n=11) did not.

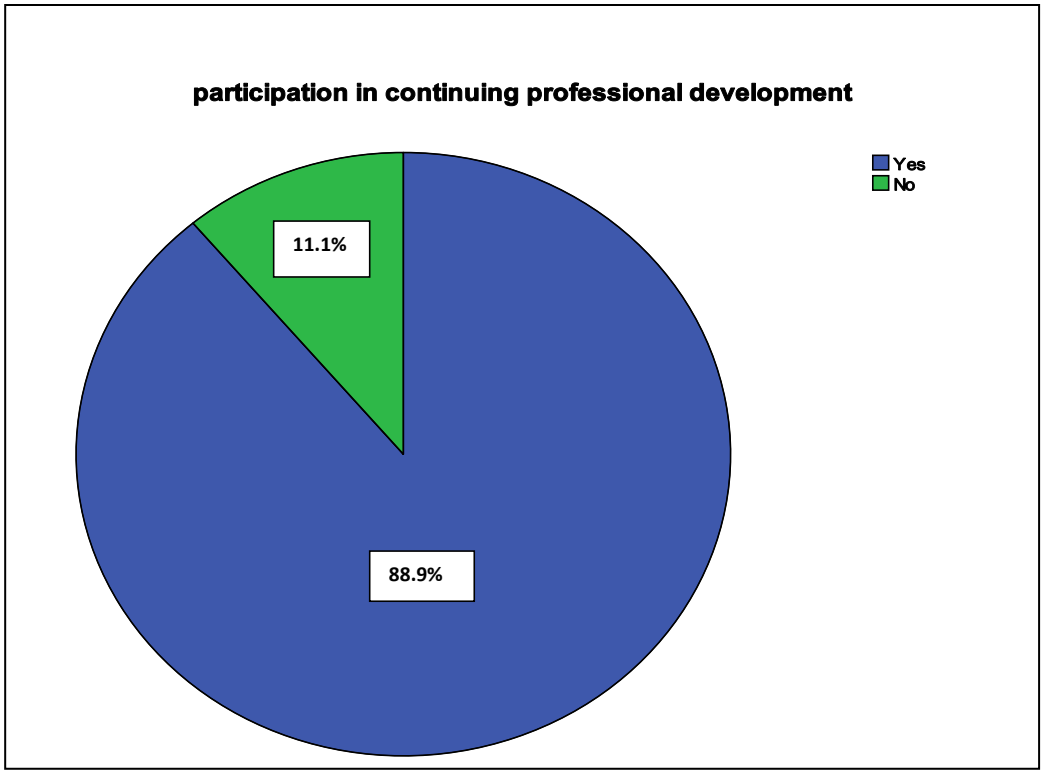

Figure 4.10 Respondents' participation in CPD (N=99)

Most nursing licensing and regulatory bodies have incorporated CPD as an integral component in maintaining a highly competent nursing workforce. The Canadian Nurses Association and American Nurses Association have a standard of lifelong learning that guides the registration and practice of their nurses (Penz et al 2007:58). Similarly, the NCK (Guidelines on continuing professional development. 2008:1) standards and guidelines on CPD require nurses practising in Kenya to participate in CPD.

4.4.2 Respondents' last participation in CPD activities

The respondents were asked to indicate when they last participated in CPD activities. Of the respondents, 54.6% (n=54) last participated in a CPD activity less than one month before the study; 26.3% (n=26) participated 3 to 6 months before the study; 7.7% (n=7) between 7and 12 months before the study, and 6.6% (n=6) between 1 and 2 years before the study. Of the respondents, 6.6% (n=6) had participated in CPD more than 2 years before the study (see figure 4.11).

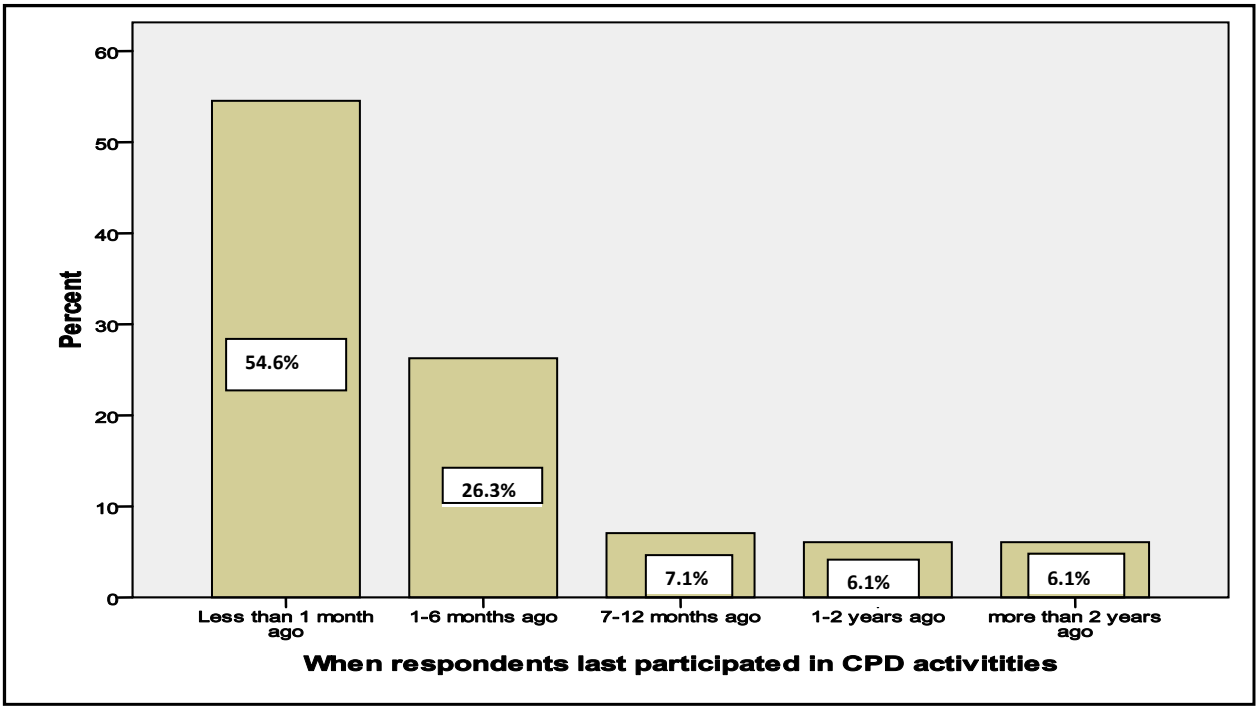

Figure 4.11 Respondents' last participation in CPD activities (N=99)

Of the respondents, 54.6% (n=54) had last participated in a CPD activity less than one month before the conduct of this study. In their study, Yfantis et al (2010:196) asked participants to indicate whether they had attended any CPD activities in the previous 2 years. The findings showed that 48% had attended only one programme, 30% had attended two programmes, and 22 % had not attended any CPD programmes.

4.4.3 Reasons for participating in CPD

The respondents were asked to indicate why they participated in CPD and could indicate more than one reason. Of the respondents, 62.6% (n=62) indicated that they participated in CPD to be updated with new developments in their areas of speciality; 48.5% (n=48) participated for career progression; 27.3**%** (n=27) did so in order to obtain additional qualifications, and 26.3% (n=26) to be prepared to mentor new nurses and students. A further 24.2% (n=24) participated in order to improve their curriculum vitae; 19.2% (n=19) did so to network with other nursing colleagues, and 5.1% (n=5) participated in order to get a break from the pressures of work and for purposes of re-licensure only. Table 4.10 depicts the respondents' reasons for participating in CPD.

Table 4.10 Respondents' reasons for participation in CPD (N=99)

Reasons for participation in CPD	Number of responses (n)	%
Only for re-licensure	5	5.1%
To obtain additional qualification	27	27.3%
For career progression	48	48.5%
To network with other nursing colleagues	19	19.2%
To be updated with new developments in my speciality	62	62.6%
To improve my curriculum vitae	24	24.2%
To get a break from pressures of work	5	5.1%
To be prepared to mentor new nurses and students	26	26.3%
Other reasons	2	2%

*Multiple-response question, sum not equal to 100%

These results are supported by Yfantis et al (2010:197) who found that 48% of the participants indicated that CPD supports flexible career pathways and achievement of career aspirations; 22% indicated that CPD enables health personnel to continually develop new competencies and skills in order to remain up to date in the rapidly changing world, and 30% indicated that CPD helps in meeting patients' needs.

Banning and Stafford (2008:178) found that CPD for nurses is important to the employer, the employee and the patients through ensuring the maintenance of a competent workforce able to provide safe care. Moreover, CPD enables health care professionals to maintain clinical governance requirements. Hughes (2005:44) found that nurses participate in CPD for various reasons, such as getting a day off from work; being sent by the employer to do so; CPD being a mandatory requirement; CPD is fun; for career growth, and to improve nursing care.

4.4.4 CPD hours attended by respondents in the last year

The respondents were asked to indicate how many CPD hours they had attended in the last year. Of the respondents, 63.6% (n=63) had attended 20 and more CPD hours; 13.1% (n=13) had attended up to four CPD hours; 7.1% (n=7) attended 10-14 hours and 15-19 hours, while 9.1% (n=9) had attended five to nine CPD hours in the year before the study (see figure 4.12).

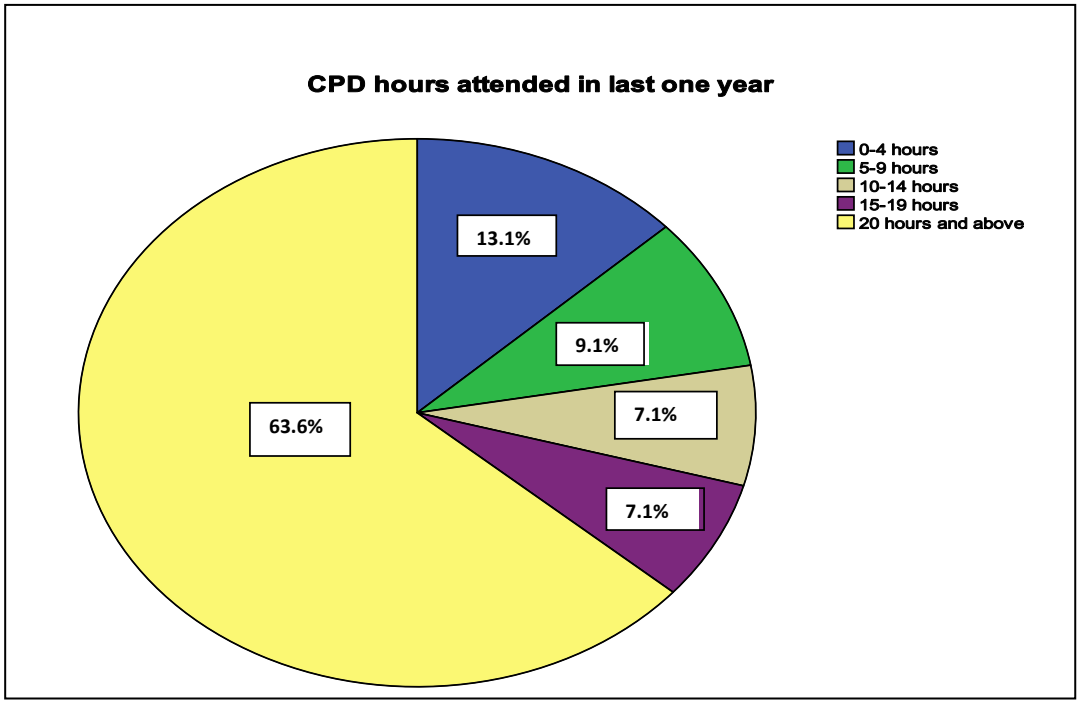

Figure 4.12 CPD hours attended by respondents in the last one year before the study (N=99)

The NCK (Guidelines on continuing professional development. 2008:1) recommends that all nurses should participate in a minimum of 20 CPD hours per year. The study found that of the respondents, 63.6% (n=63) had achieve the required minimum 20 hours per year; 36.4% (n=36) had not. This is consistent with Nalle et al's (2010:110) finding that 72% of the respondents had participated in 15 or more hours of continuing education in the previous two years, with greater levels of participation noted as educational level increased.

Hughes (2005:41) found that despite strategies to enable registered nurses to achieve 30 CPD hours in three years before re-registration, barriers such as inability to release staff from the workplace to study because of staff shortages made it difficult for the nurses to meet the stipulated CPD hours.

4.4.5 CPD hours that respondents would like to attend per year

The respondents were asked to indicate how many CPD hours they would like to attend per year. Of the respondents, 80.8% (n=80) indicated that they would like to attend 20 hours and more per year; 10.1% (n=10) indicated 10-14 hours; 6.1% (n=6) would like to attend 15-17 hours; 2.0% (n=2) indicated 5-9 hours, while 1.0% (n=1) indicated 0-4 hours per year (see figure 4.13).

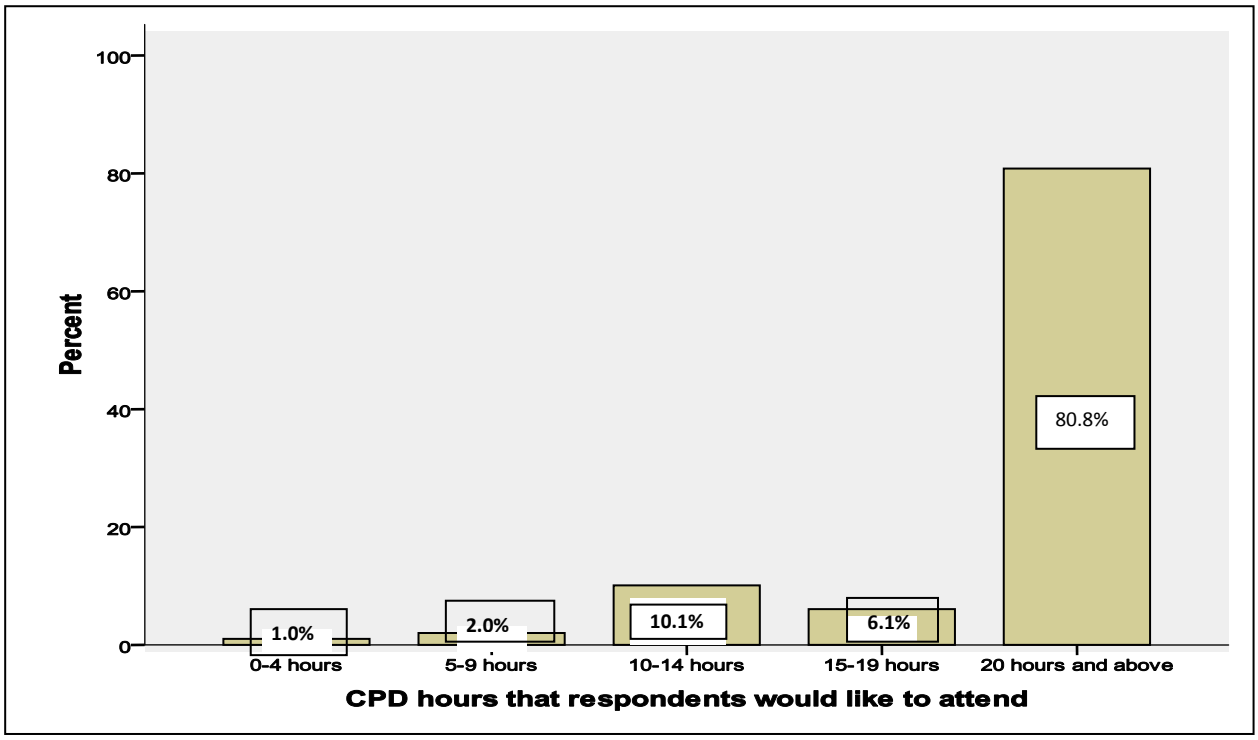

Figure 4.13 CPD hours that respondents would like to attend per year (N=99)

Of the respondents, 80.8% (n=80) would like to attend 20 hours and more CPD sessions in a year. This is in line with the hours recommended by the NCK (Guidelines on continuing professional development. 2008:1).

4.4.6 Topic of last CPD activity attended

The respondents were asked to indicate the topic of the last CPD activity they attended. Of the respondents, 51.5% (n=51) indicated general clinical knowledge and skills; 17.2% (n=17) indicated unit speciality clinical content; 6.1% (n=6) reported leadership

and management; 21.2% (n=21) indicated heath informatics, health economics and financial management and advanced cardiac life support, and 4.0% (n=4) stated quality assurance.

These results support Nalle et al's (2010:111) finding that the most recent CPD topics attended by the participants were clinical knowledge and skills (29%), specialty clinical content (24%), leadership and management (15%), and employer/joint commission mandated topics (11%).

4.4.6.1 Relation of topic to current area of practice/speciality

The respondents were asked to indicate whether the topic of CPD last attended was related to their current area of practice. Of the respondents, 87.9% (n=87) indicated that the CPD topic was related to their current area of practice while 12.1% (n=12) indicated that the topic was not related to their current area of practice (see figure 4.14).

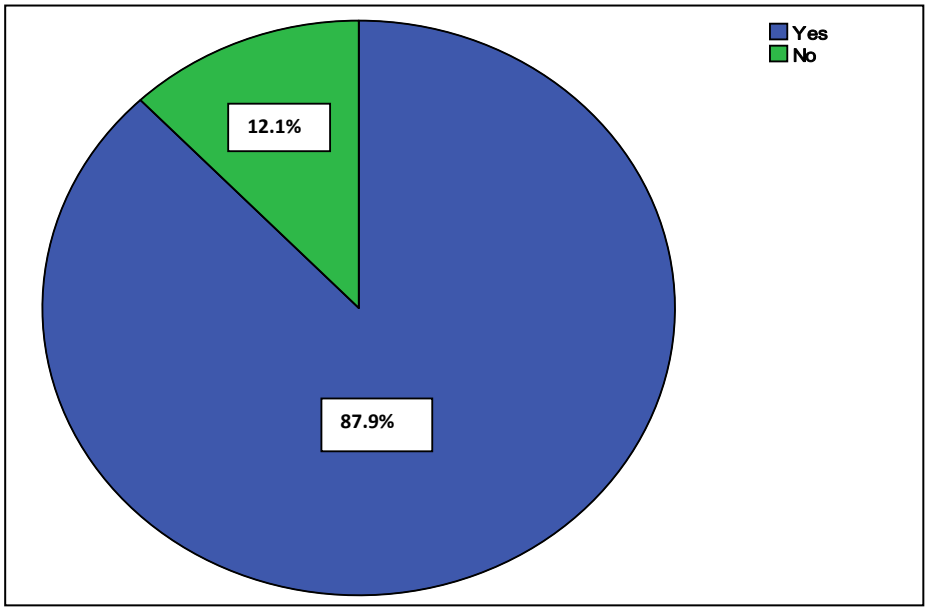

Figure 4.14 Relation of topic and current area of specialty (N=99)

The respondents who indicated that the CPD topic was not relevant to their practice are a pointer to CPD providers to ensure that topics are in tandem with practice and assist the nurses in solving the problems that they meet in daily practice. Nalle et al (2010:111) found that non-relevance of the CPD programmes was one of the barriers to nurses' participation in CPD activities. Hughes (2005:46) found that non-relevance of CPD programmes led to nurses' negativity to CPD programmes.

4.4.7 Sponsor of last CPD attended by respondent

The respondents were asked to indicate the sponsor of the last CPD activity that they attended. Of the respondents, 45.5% (n=45) indicated the hospital; 29.3% (n=29) indicated the training agency; 14.2% (n=14) indicated other sponsors, while 11.1% (n=11) sponsored themselves (see figure 4.15).

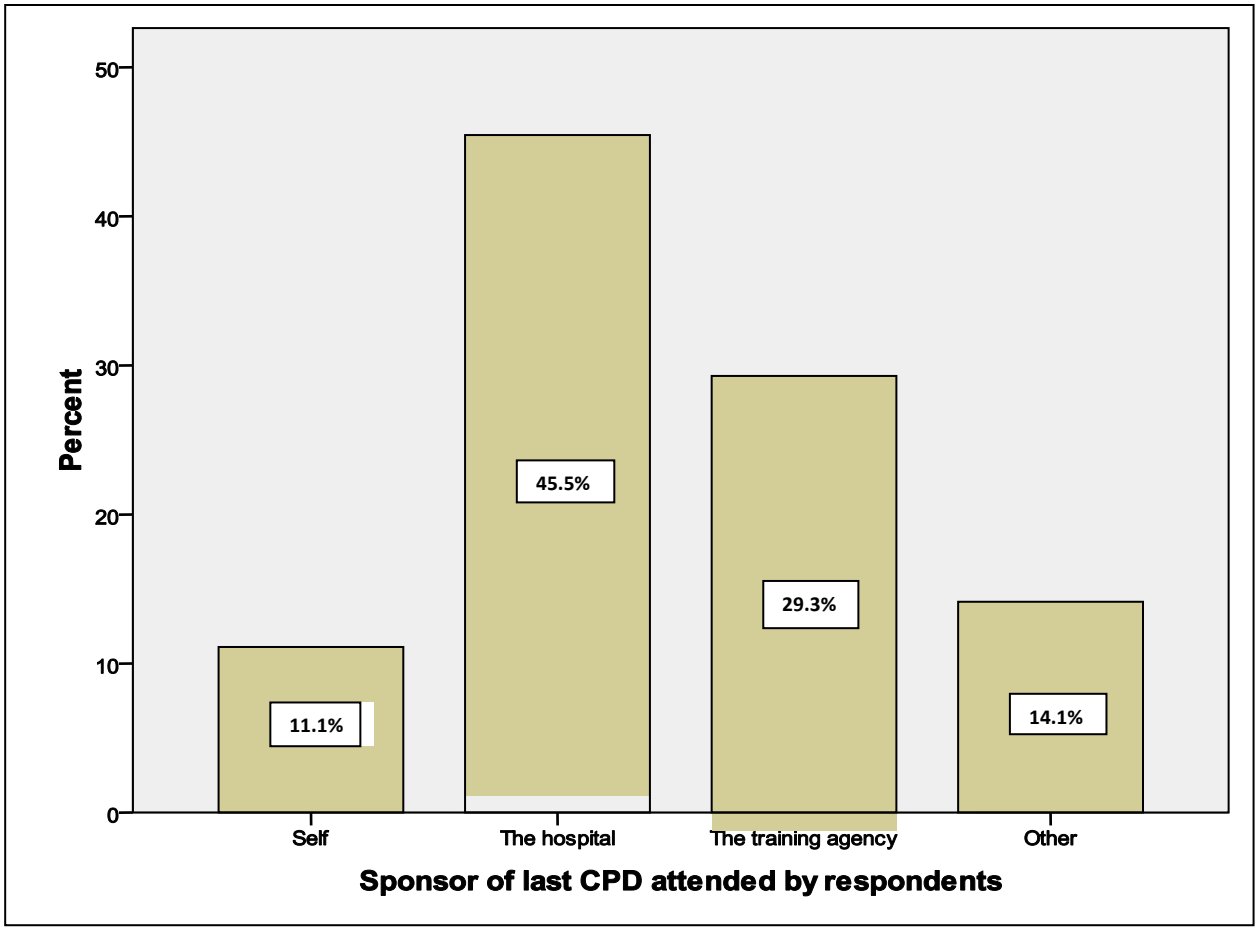

Figure 4.15 Sponsor of last CPD attended by respondents (N=99)

Of the respondents, 35.4% (n=35) indicated that lack of finance was a barrier to their participation in CPD (see section 4.4.8). Figure 4.15 indicates that the hospital and the training agency sponsored 74.8% (n=74) of the last CPD activities attended by the respondents. This improves nurses' accessibility to CPD activities.

Schweitzer and Krassa (2010:443) maintain that CPD providers need to cooperate with sponsors in order to address cost as a barrier to CPD and thus increase nurses' participation in CPD activities. On the contrary, however, Kubsch et al (2003:211) found that employer payment of workshop and conference fees did not affect participation in CPD.

4.4.8 Barriers to CPD

The respondents were asked to indicate factors which they considered barriers to their participation in CPD (see table 4.11). The respondents could indicate more than one factor.

Table 4.11 Respondents' barriers to CPD participation (N=99)

CPD barriers	Number of responses (n)	%
Lack of interest	3	3
Lack of time due to heavy workload	54	54.5
Staff shortage	67	67.7
Lack of finance	35	35.4
Failure of administration to organize for off-duty time	19	19.2
Lack of information on available CPD sessions	21	21.2
Lack of time due to family commitments	10	10.1
Lack of role models at work	6	6.1
Other barriers	2	2.0

*Multiple-response question, sum not equal to 100%

Of the respondents, 67.7% (n=67) indicated staff shortages; 54.5% (n=54) indicated lack of time due to heavy workload, and 35.4% (n=35) indicated lack of finance as barriers to participation. In addition, 19.2% (n=19) indicated failure of administration to organise for off-duty time and 3% (n=3) indicated lack of interest as a barrier to their participation in CPD.

The findings are consistent with Yfantis et al (2010:197) who indicate that 83% of participants stated the CPD /training was fully booked and 17% indicated that the ward was too busy for them to find time to attend the CPD sessions. De Villiers (2008:26) found lack of time dedicated for learning, staff shortages, lack of CPD policies, and health professionals being overwhelmed with patient care duties were barriers to CPD participation.

Recker-Hughes, Brooks, Mowder-Tinney and Pivko (2010:23) found that lack of time (70%); expensive programmes (40%); lack of reimbursement (39%); difficulty in accessing programmes (38%); CPD not valued (11%), and CPD not a requirement (9%) were barriers to participation.

Schweitzer and Krasse (2010:441) identify the cost of attending CPD; family responsibilities; travel distance; under-staffing and lack of quality or interesting topics; lack of benefit in attending CPD; lack of support from administration, and peer opinions and attitudes as deterrents to participation.

Banning and Stafford (2008:181) found financial difficulties, time constraints due to work overload and staff shortage were barriers to accessing CPD programmes.

4.5 SECTION C: LEARNER'S NEED TO KNOW

This section covered the respondents' definition of CPD, CPD activities identified by respondents, CPD activities that respondents participated in, whether CPD was important to nurses, why CPD was important to nurses, why CPD was not important to nurses and respondents' learning needs.

4.5.1 Respondents' definition of CPD

Of the respondents, 52.5% (n=52) indicated that CPD constituted participation in workshops, seminars, conferences, journaling, research and formal training; 32.3% (n=32) indicated learning activities after basic formal education, and 4.0% (n=4) indicated that CPD involved engaging in formal training after basic training. Table 4.12 presents the respondents' understanding of CPD.

Table 4.12 Respondents' definition of CPD (N=99)

Respondents' definition of CPD	Number of respondents	%
Learning activities after basic formal education	32	32.3
Engaging in formal training after basic training only	4	4.0
Participation in workshops, seminars, conferences, journaling and research only	8	8.1
Participation in workshops, seminars, conferences, journaling , research and formal training	52	52.5
Other	3	3.0

Yfantis et al (2010:196) found that 74% of the participants defined CPD as a process of lifelong learning for all individuals and teams which met the needs of patients and delivered the health outcomes, and 26% indicated learning activities that enabled the nurse to keep up to date with knowledge and skills. DeSilets and Dickerson (2008:437) found that some nurses preferred to attend "live" CPD events, such as conferences, seminars and workshops.

4.5.2 CPD activities identified by respondents

Of the respondents, 75.5% (n=75) identified workshops; 65.7% (n=65) identified seminars; 59.5% (n=59) indicated upgrading programmes; 48.5% (n=48) indicated scientific conferences; 43.4% (n=43) identified research; 35.4% (n=35) identified online courses; 30.3% (n=30) identified journaling, and 14.1% (n=14) referred to on-the-job training under "other" CPD activities (see table 4.13).

Table 4.13 CPD activities identified by respondents (N=99)

CPD activities identified by respondents	Number of responses (n)	%
Workshops	75	75.5
Seminars	65	65.7
Upgrading programs	59	59.5
Scientific conferences	48	48.5
Research	43	43.4
Journaling	30	30.3
Other	14	14.1

*Multiple-response question, sum not equal to 100%

In their study on clinical instructors' perspectives on professional development opportunities, availability, preferences, barriers and support, Recker-Hughes et al (2010:19) identified different CPD activities. According to them, conferences and workshops were the most typical delivery techniques for CPD, while other CPD approaches included educational materials, such as textbooks and journal articles; departmental in-service activities; mentoring; computer-aided instruction; post-professional academic coursework, and clinical specialist certification.

4.5.3 CPD activities that respondents participated in

Of the respondents, 72.7% (n=72) indicated that they participated in workshops as a CPD activity; 69.7% (n=69) participated in seminars; 15.2% (n=15) participated in online courses, and 10.1% (n=10) participated in journaling. This is depicted in table 4.14.

Table 4.14 CPD activities in which respondents participated (N=99)

CPD activities that respondents participated in	Number of responses (n)	%
Upgrading programme	27	27.3%
Workshops	72	72.7%
Seminars	69	69.7%
Research	19	19.2%
Journaling	10	10.1%
Scientific conferences	36	36.4%
Online courses	15	15.2%

*Multiple-response question, sum not equal to 100%

Younies, Berham and Smith (2010:255) found that health care professionals engaged in different forms of professional development activities, such as self-education, conferences, online courses, journaling and research. Yfantis et al (2010:197) found that participants attended seminars and small group teaching. Banning and Stafford (2008:178) indicated that nurses engaged in both formal learning, which leads to progression in career, and informal CPD activities, such as conferences, journaling and accessing the internet.

Nalle et al (2010:111) found that nurses participated in employer organised sessions (37%), national conferences (32%), journals or print sources (12%), and online continuing education sessions (8%).

4.5.4 Importance of CPD to nurses

The respondents were asked to indicate whether CPD was important to nurses. Of the respondents, 97.0% (n=96) indicated that CPD was important to nurses while 3.0% (n=3) indicated that CPD was not important to nurses (see figure 4.16).

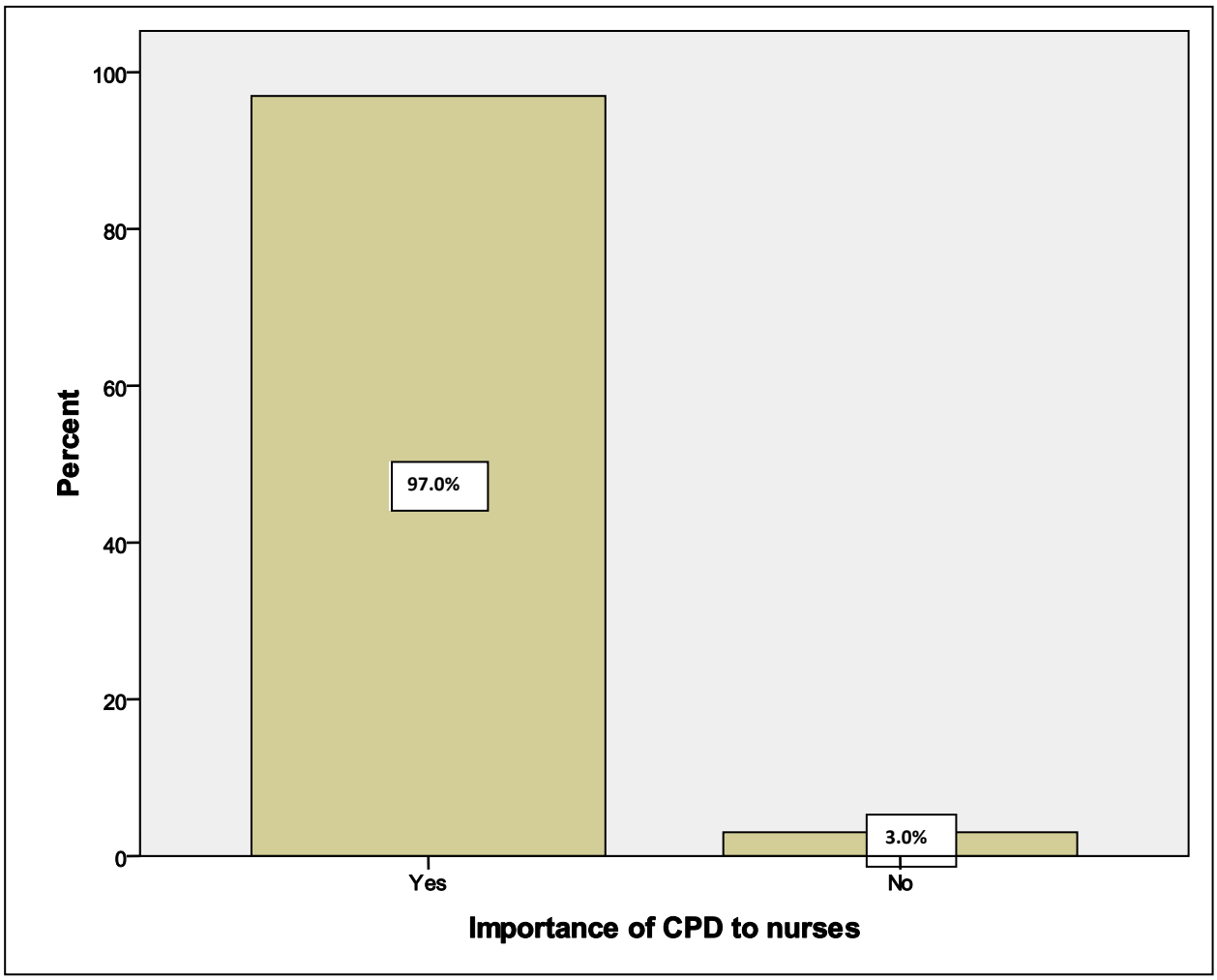

Figure 4.16 Importance of CPD to nurses (N=99)

Hughes (2005:44) found that 80% of the nurses recognised CPD to be important in nursing practice. In a study on the continuing education needs of nurses in a voluntary continuing education state, Nalle et al (2010:110) found that 59% of the nurses rated continuing education as very important while 29% indicated CPD as important.

4.5.4.1 Reasons for importance of CPD

The respondents were asked to indicate why CPD was important to nurses. The respondents could indicate more than one item (see table 4.15). Of the respondents, 96% (n=95) indicated that CPD was important to nurses as it improved the quality of nursing care; 46.5% (n=46) indicated that CPD increased nurses' self-confidence and

self-esteem, while only 5.1% (n=5) indicated that CPD addressed staff shortages by increasing their retention.

Table 4.15 Respondents' reasons for importance of CPD to nurses

Reasons why CPD is important to nurses	Number of responses	
	(n)	%
Addresses nurses shortage by increasing their retention	5	5.1%
Improves quality of nursing care	95	96.0%
Increases nurses' motivation	36	36.4%
Enhances recognition among health care workers	22	22.2%
Increases self-confidence and self-esteem	46	46.5%
Other reasons	4	4.0%

*Multiple-response question, sum not equal to 100%

Of the respondents, 96% (n=95) indicated that CPD contributes to improving the quality of nursing care. Under "other" reasons, 4% (n=4) indicated that CPD enhanced autonomy and decision making among nurses and enabled nurses to be assertive.

Yfantis et al (2010:197) found that 83% of participants indicated that CPD assisted nurses in planning their nursing work while 17% indicated that CPD helped nurses to think about what they did in practice. The findings of this study concur with Yfantis et al (2010:197) as helping nurses plan their nursing care assists in improving the quality of nursing care.

McLaren et al (2007:87) revealed that nurse managers considered CPD to be important in maintaining nurses' skills, motivation and confidence; contributed to role enhancement, workforce deployment, and enhancement of quality service to patients. Claflin (2005: 269) found that CPD not only contributed to nurses' job satisfaction but was also important to the employer, as learning outcomes can be measured in terms of

improvement in patient outcomes, improved utilisation of resources, and resultant decreased running costs.

In relation to addressing staff shortages, Zeller et al (2011:413) found that CPD programmes in the health facilities did not contribute directly to nurses' retention. Cooper (2009:507), however, indicated that increasing nurses' opportunities for professional development increased nurses' retention, satisfaction and the quality of care provided.

4.5.4.2 Why respondents consider CPD not important to nurses

Of the respondents, only 29.3% (n=29) of the respondents responded to this question while the rest indicated "not applicable (N/A)" as they considered CPD to be important to nurses. Of the respondents, 19.2% (n=19) indicated that what was learnt was not applied to practice; 9.1% (n=9) indicated that nurses attended CPD to improve their career prospects while not focusing on patients' needs; 1% (n=1) considered CPD not important to nurses because what was taught was not relevant to practice. None (0%) of the respondents indicated that attending CPD was a waste of time.

Kubsch et al's (2003:210) findings indicated that irrelevance of the learning sessions to practice was a major deterrent to nurses' participation in CPD. Hughes (2005:46) reported that nurses had a negative attitude towards CPD because they had not learnt anything new, the CPD session was not relevant to practice, and some indicated that they had no opportunity to implement the new ideas.

4.5.5 Respondents' learning needs

The respondents were asked to indicate their priority learning needs and could mark more than one learning need. Of the respondents, 45.5% (n=45) indicated evidence-based practice; 35.4% (n=35) indicated for leadership, management and professional issues; 32.3% (n=32) indicated for nursing research; 28.3% (n=28) stated for nursing education, 19.2% (n=19) for advanced practice, 15.2% (n=15) for acute medical surgical

nursing while 2% (n=2) indicated other learning needs. Table 4.16 presents the respondents' learning needs.

Table 4.16 Respondents' learning needs (N=99)

Respondents' learning needs	Number of responses	
	%	(n)
Evidence-based practice	45.5	45
Leadership and management	35.4	35
Professional issues	35.4	35
Nursing research	32.3	32
Nursing education	28.3	28
Advanced practice	19.2	19
Acute medical surgical nursing	15.2	15
Other learning needs	2	2

*Multiple-response question, sum not equal to 100%

Evidence-based practice accounted for the highest responses (n=45; 45.5%), while acute medical-surgical nursing accounted for 15.2% (n=15), and 2% (n=2) responses for other learning needs included advanced neonatal care. The results are consistent with Claflin's (2005:268) findings that nurses identified clinical topics as their priority areas for learning. This reflects the need for nurses to acquire updates on patient care information and skills to equip them to provide quality care in an ever-changing environment. McLaren et al (2007:87) found that general practice managers' learning needs included chronic disease management and aspects of operational management. Nalle et al (2010:112) found that the nurses identified their priority learning needs as leadership and management (28%), evidence-based practice (26%), professional issues (21%), advanced practice (21%), and acute medical-surgical nursing (18%).

4.6 SECTION D: SELF-CONCEPT

In this section, the respondents had to indicate their views on their self-concept and participation in CPD. The respondents were required to indicate whether participation in

CPD had improved their self-concept and if yes, to indicate how their self-concept had improved as a result of participation in CPD.

The self-concept is how individuals think about and perceive or evaluate themselves. When asked to describe their self-concept the answer may take the form of *social roles* such as a parent or may include *personality traits* such as impatient (McLeod 2008:1). McLeod adds that individuals' self-concept is the measure between how they perceive themselves and the ideal self.

In relation to adult learners, their self-concept is that of being self-directed and taking responsibility for their own learning (Riggs 2010:388). Klunklin, Viseskul, Sripusanapan and Turale (2010:177) state that self-directed learning is a process in which individuals take initiatives in diagnosing their learning needs, formulating learning goals, resources for learning, choosing and implementing appropriate learning strategies, and evaluating the learning outcomes. According to Lee Sung (2006:38), since self-directed adult learners are motivated to learn they are able to modify their behaviour and the environment in order to achieve the set learning goals. Therefore CPD providers should allow adult learners to be autonomous and to take charge of their own learning.

4.6.1 Respondents' perception of self-concept and CPD

In this section the respondents were given nine options to choose from and could select more than one option.

Regarding self-concept and participation in CPD, 58.5% (n=58) of the respondents indicated that it was their responsibility to identify available CPD opportunities; 33.3% (n=33) indicated that it was the employer's responsibility to identify available CPD opportunities for nurses. Of the respondents, only 15.2% (n=15) had identified the last CPD activity that they had attended, while the employer had identified the last CPD attended by 33.3% (n=33) of the respondents (see table 4.17).

Of the respondents, 33.3% (n=33) identified their own learning needs; 34.3% (n=34) jointly identified the learning needs with the employer, 2% (n=2) had their learning

needs identified by the employer. Only 31.3% (n=31) of the respondents had their CPD needs guided by their patients' needs.

Table 4.17 Respondents' perception of self-concept and CPD (N=99)

Respondents' perception on self-concept and CPD	Number of responses (n)	%
It is my responsibility to identify available CPD opportunities.	58	58.5%
It is the employer's responsibility to identify available CPD opportunities for nurses.	33	33.3%
The last CPD I attended was identified by myself.	15	15.2%
The last CPD I attended was identified by the employer.	33	33.3%
The last CPD I attended was identified by the trainers.	20	20.2%
I identify learning needs myself.	33	33.3%
My learning needs are identified by the employer.	2	2.0%
I jointly identify my learning needs together with the employer.	34	34.3%
My CPD needs are guided by my patients' needs.	31	31.3%

*Multiple-response question, sum not equal to 100%

Of the respondents, 58.5% (n=58) indicated that it was their responsibility to identify available CPD activities. Bramley (2006:118) found that it was the responsibility of the prescriber to remain up-to-date with knowledge and skills to enhance safe and competent prescription. Kubsch et al (2003:205) emphasise that nurses must feel the need for CPD as it was their personal responsibility to stay updated with information on and skills in current practice.

In relation to learning needs identification, 34.3% (n=34) of the respondents indicated that they jointly identified learning needs with the employer. This supports Nalle et al's (2010:109) finding that the assessment of learning needs should be collaborative between CPD providers, employers and learners to ensure relevance to specific professional groups and nursing work environments.

Legare, Bekker, Desroches, Drolet, Politi, Stacey, Borduas, Cheater, Cornuz, Coutu, Ferdjaoui-Moumjid, Griffiths, Harter, Jacques, Krones, Labrecque, Neely, Rodriguez, Sargeant, Schuerman and Sullivan (2011:1) emphasise that shared decision making is associated with favourable health outcomes as this is an interactive and collaborative process that is patient centred. Shared decision making also fosters the use of evidence and learner autonomy.

4.6.2 Participation in CPD and self-concept

The respondents were asked to indicate whether their participation in CPD had improved their self-concept. Of the respondents, 87.9% (n=87) indicated that participation in CPD had improved their self-concept while 12.1% (n=12) indicated that it had not (see figure 4.17).

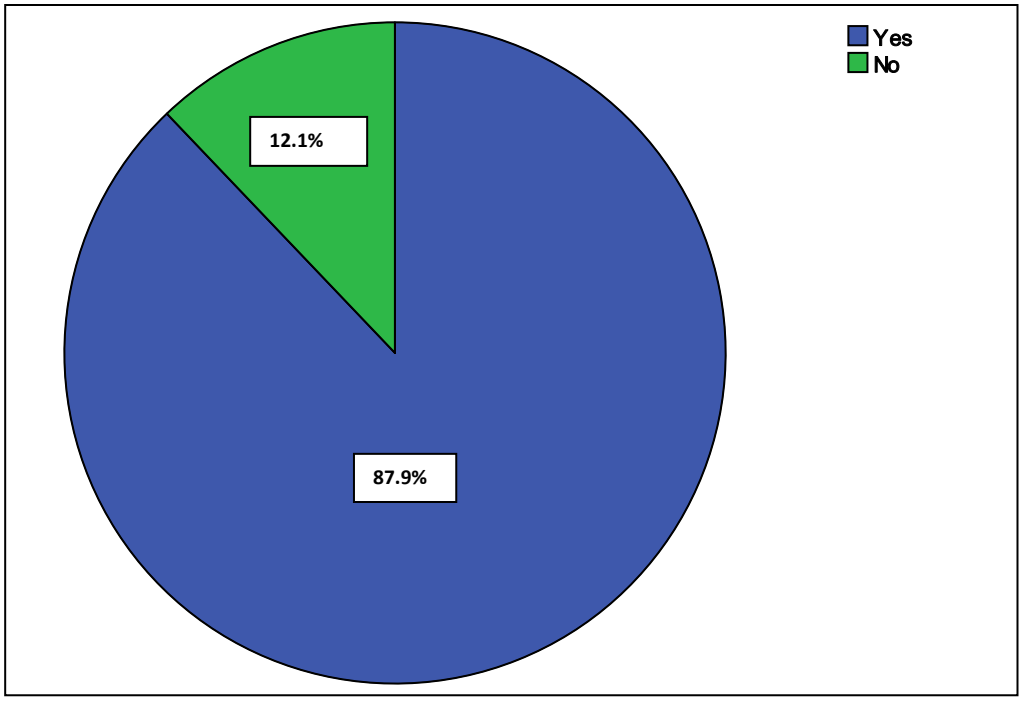

Figure 4.17 Participation in CPD and improvement of self-concept (N=99)

These results are consistent with Lee Sung's (2006:39) finding that engagement in lifelong learning activities was the main source of achievement of self-direction. This was because self-directed learners are not only able to acquire the best learning

strategies and tactics but also to transfer their successful learning patterns to other contexts in practice.

4.6.2.1 Continuing professional development and improvement of self-concept

Of the respondents, 71.7% (n=71) indicated that participation in CPD had improved their self-concept as they were now able to diagnose their learning needs; 52.5% (n=52) indicated that they were able to make their own decisions related to CPD, and 39.4% (n=39) indicated that they were able to take responsibility for their learning (see table 4.18).

Table 4.18 Continuing professional development and improvement of self-concept

Continuing professional development and improvement of self-concept	**Number of responses**	
	(n)	**%**
I am able to diagnose my learning needs.	71	71.7%
I am able to make my own decisions related to CPD.	52	52.5%
I am able to take responsibility for my learning.	39	39.4%

*Multiple-response question, sum not equal to 100%

It was noteworthy that 71.7% (n=71) of the respondents were able to diagnose their learning needs as a result of participation in CPD. Klunklin et al (2010:177) found that self- directed learners were able to diagnose their learning needs, formulate learning goals, identify resources for learning, choose and implement appropriate learning strategies, and evaluate the learning outcomes. Silver et al (2008:29) indicate that self-assessment and diagnosis of learning needs provide health professionals with an opportunity to compare their knowledge against current scientific evidence. In addition, it is a process that enables learners to identify unperceived gaps in knowledge and skills.

Of the respondents, 39.4% (n=39) indicated that they were able to take responsibility for their own learning as a result of participation in CPD. This is consistent with section 4.6.1 where 58.5% (n=58) of the respondents indicated that it was their responsibility to identify available CPD activities. These findings are supported by Bramley (2006:118) and Kubsch et al (2003:205).

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4.6.3 Respondents' perceptions of last attended CPD activity

As indicated in table 4.19, 54.5% (n=54) of the respondents indicated that the learning environment made them feel accepted and respected while 2% (n=2) indicated that it did not. Of the respondents, 37.4% (n=37) indicated that there was mutual inquiry with the teacher while 19.2% (n=19) indicated that there was no mutual inquiry with the teacher. Of the respondents, 48.5% (n=48) indicated that there was freedom of expression while 8.1% (n=8) indicated that there was no freedom of expression.

Table 4.19 Respondents' perceptions of last attended CPD activity (N=99)

Respondents' perceptions of last attended CPD activity	Number of responses	
	(n)	%
4.4.1 The learning environment made me feel accepted and respected.	54	54.5
4.4.2 The learning environment did not make me feel accepted and respected.	2	2
4.4.3 There was mutual inquiry with the teacher.	37	37.4
4.4.4 There was no mutual inquiry with the teacher.	19	19.2
4.4.5 There was freedom of expression.	48	48.5
4.4.6 There was no freedom of expression.	8	8.1

*Multiple-response question, sum not equal to 100%

The findings indicate the responses of the participants in relation to the learning environment and the conduct of the learning sessions. Riggs (2010:388) found that adult learners learned better when different learning styles were used and the adults also preferred an informal learning environment. The teacher should provide adequate time for discussion, interaction and consultation as adults bring a wealth of knowledge to the learning environment. Riggs (2010:388) adds that a round table sitting

arrangement may be adopted or the participants may be divided into smaller groups. These interventions would enhance mutual consultation and provide an informal environment that makes adult learners feel more accepted and respected.

4.7 SECTION E: EXPERIENCE

This section sought to identify the respondents' perceptions of adult learning and the common teaching strategies used during the conduct of the last CPD activity attended. According to Neill (2006:online), experience refers to "the nature of the events someone or something has undergone". In this study experience refers to the events the respondents had gone through during their years of practice.

Experiential learning involves learning which occurs from direct participation in the events of life and involves reflection on everyday experiences (Neill 2006:online). In this study experiential learning included CPD programmes that allowed the respondents to reflect and learn from the everyday events that they went through during their practice.

4.7.1 Respondents' perceptions of adult learning and past experience

The respondents were asked to indicate statements that were true in relation to adult learning and past experience. They were allowed to indicate more than one response. Of the respondents, 67.7% (n=67) indicated that past experience enhanced learning; 53.5% (n=53) indicated that adults brought past experience to the learning environment; 52.5% (n=51) indicated that adult learners were resourceful, and 5.1% (n=5) indicated that the teacher facilitating CPD possessed all the knowledge (see table 4.20).

Table 4.20 Respondents' perceptions of adult learning and past experience (N=99)

Respondents' perceptions of adult learning and past experience	Number of responses	
	(n)	%
Past experience enhances learning.	67	67.7
Adults bring past experience to the learning environment.	53	53.5
Adult learners are resourceful.	52.5	51
Teacher facilitating CPD possesses all the knowledge.	5	5.1

*Multiple-response question, sum not equal to 100%

The findings indicate that the respondents recognise the important role of past experience when dealing with adult learners. This is supported by Riggs (2010:388).

Of the respondents, 94.9% (n=94) did not support the belief that the CPD facilitator possesses all the knowledge. This indicated that adult learners have past experience and information which they bring to the learning environment and would like to actively contribute to the learning experience. Riggs (2010:388) supports this finding and recommends that CPD implementers and facilitators apply *Andragogy*, which is learner-driven and also places value on adult life and learning experiences.

4.7.2 Teaching strategies used during the last CPD attended by respondents

The respondents were asked to indicate the teaching strategies that were used to conduct the last CPD that they attended. The respondents could choose more than one option.

Of the respondents, 74.7% (n=74) indicated that group discussion was the most frequently used teaching strategy while field projects were not used at all; 40.4% (n=40) indicated that skills practice exercises were used; 28.3% (n=28) indicated simulation; 5.1% (n=5) indicated role play; 3% (n=3) indicated both critical-incident process and

group therapy, and 1% (n=1) indicated case study. Table 4.21 presents the strategies used in the last CPD activity attended by the respondents.

Table 4.21 Teaching strategies used in the last CPD activity attended by respondents (N=99)

Teaching strategy	Number of responses	%
Group discussions	74	74.7
Case study	1	1
Critical-incident process	3	3
Simulation	28	28.3
Role play	5	5.1
Skill practice exercises	40	40.4
Field projects	0	0
Group therapy	3	3
Other teaching strategies	3	3

*Multiple-response question, sum not equal to 100%

In Greece, Yfantis et al (2010:197) found that 40% of the CPD activities took a seminar form, while 30% accounted for both small group teaching and educational programmes. This corresponds with the findings of this study where group discussions were mainly used (74.7%). Riggs (2010:389) maintans that CPD providers should employ different teaching approaches that encourage learners' participation as adult learners learn best using different learning styles.

4.8 SECTION F: RESPONDENTS' READINESS TO LEARN

This section sought to describe the respondents' readiness to learn in relation to their preparation and how they were prepared for attending CPD activities. Riggs (2010:388) describes readiness to learn as "learners learning because they want to". Furthermore, adults may be ready to learn because they may want to earn contact hours, stay current, or understand new processes, ideas, or strategies, or it may be a requirement

of the health care facility or the regulatory body. These may comprise learners' goals which should be determined during the conduct of learning needs assessment.

4.8.1 Respondents' perceptions of their readiness to learn

Of the respondents, 82.8% (n=82) indicated that they participated in CPD to improve on their knowledge and skills. Of these, 18.2% (n=18) participated in CPD because of licensure and regulatory requirements. It should be noted that only 2% (n=2) of the respondents indicated that the CPD timing was usually in line with the learners' needs (see table 4.22).

Table 4.22 Respondents' perceptions of their readiness to learn (N=99)

Respondents' perceptions of readiness to learn	Number of responses (n)	%
I participate in CPD sessions as a hospital requirement.	9	9.1%
I participate in CPD sessions when they directly address ward-based patient needs.	20	20.2%
I participate in CPD to improve on my knowledge and skills.	82	82.8%
I participate in CPD due to licensure and regulatory requirements.	18	18.2%
The CPD timing is usually in line with learners' developmental needs.	2	2.0%

*Multiple-response question, sum not equal to 100%

Of the respondents, 82.8% (n=82) indicated that they participated in CPD to improve on their knowledge and skills. This eventually leads to improved health care and health outcomes. These results are consistent with Hughes' (2005:44) finding that participants' reasons for participating in CPD included mandatory requirements, improvement in care and practical skills, getting a day off, being sent to represent the health care facility, and for career advancement.

4.8.2 Respondents' preparation for last attended CPD session

This question sought to find out whether the respondents were prepared for CPD sessions. The respondents were asked to indicate whether they were prepared for the last CPD session that they had attended (see figure 4.18).

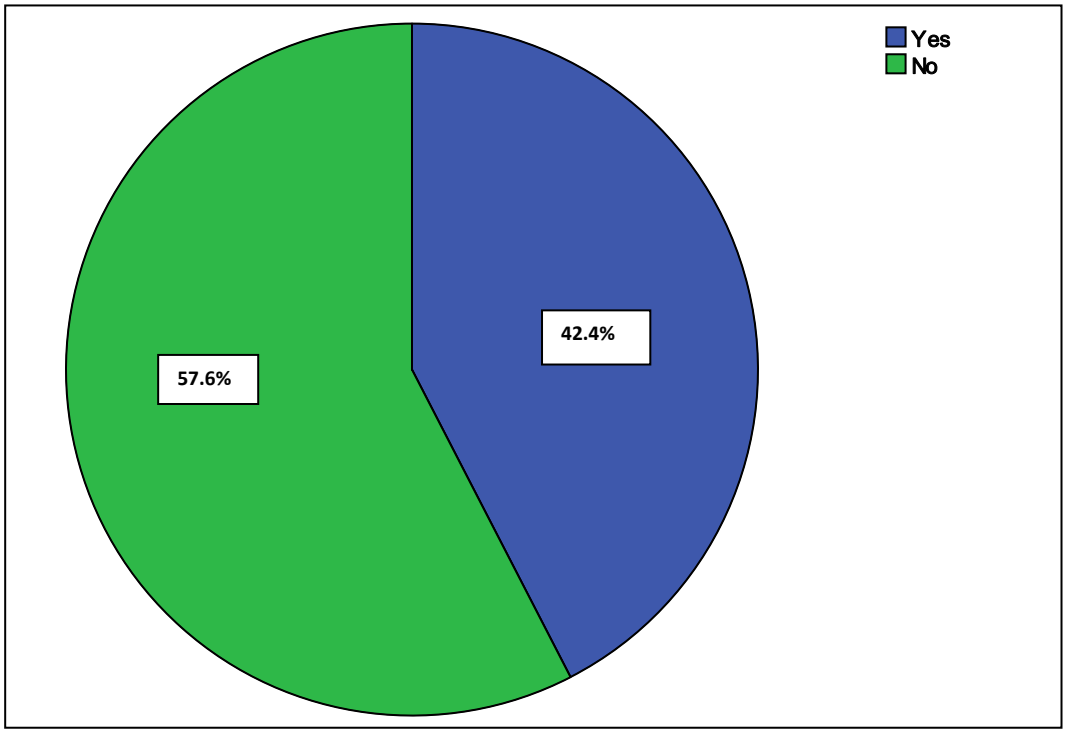

Figure 4.18 Respondents' preparation for last attended CPD (N=99)

From figure 4.18 it is clear that 42.4% (n=42) of the respondents indicated that they were prepared while 57.6% (n=57) indicated that they were not prepared for the last CPD activity that they had attended.

4.8.2.1 How respondents were prepared for last attended CPD

This question required the respondents who had answered yes to section 4.8.2, to indicate how they had been prepared for the last CPD activity (see table 4.23).

Table 4.23 Respondents' preparation for last attended CPD

Respondents' preparation for last attended CPD	Respondents (n)	%
I was sent objectives of the programme.	8	19.1
I was sent preparation material for the programme.	34	80.9
I was given web addresses to consult before entering the programme.	0	0

Of the respondents, 80.9% (n=34) indicated that they were sent preparation material for the programme; 19.1% (n=8) were sent the objectives of the programme, while 0% (n=0) indicated that they were given web addresses to consult before entering the programme.

4.8.2.2 Respondents not prepared for last attended CPD

The respondents who indicated that they were not prepared for the CPD programme were asked to indicate the items they thought could have added to their learning experience if information had been provided in advance. The respondents could select more than one item (see table 4.24).

Table 4.24 Information that should be provided in advance

Respondents' identified information that should be provided in advance	Number of respondents (n)	%
Objectives of the programme	50	87.7
Preparation material	47	82.5
Reading references	15	26.3
Web addresses	7	12.3

*Multiple-response question, sum not equal to 100%

Of the respondents, 87.7% (n=50) indicated that the objectives of the programme would have added to their learning if provided in advance; 82.5% (n=47) indicated the

preparation material, 26.3% (n=15) indicated reading references, and 12.3% (n=7) indicated web addresses.

4.9 SECTION G: ORIENTATION TO LEARNING

This section outlines the respondents' perceptions of their orientation to learning and the contributions of CPD programmes.

Orientation to learning refers to adults wishing to apply learned information and skills immediately. CPD providers and implementers should incorporate practical activities, role play and simulated scenarios in the CPD programme (Riggs 2010:388).

4.9.1 Respondents' orientation to learning and last attended CPD activity

The respondents were asked to indicate statements that were true in relation to their orientation to learning and last attended CPD activity. The respondents could indicate more than one statement (see table 4.25).

Of the respondents, 49.5% (n=49) indicated that they participated in CPD sessions for future use of learned information and 52.5% (n=52) indicated development of CPD programmes with information for immediate application in patient care.

Of the respondents, 16.2% (n=16) indicated that the lecture content related to patients' needs while 26.3% (n=23) indicated that the lecture content covered did not relate to patients' needs. It was noted that 4.0% (n=4) of the respondents indicated that the presenter was not knowledgeable on the subject area.

Table 4.25 Respondents' perception of orientation to learning and last attended CPD activity

Respondents' perception of orientation to learning	Number of responses	
	n	%
I participate in CPD only if I can immediately apply learned information.	11	11.1
I participate in CPD sessions for future use of learned information.	49	49.5
I suggest development of CPD programmes with information for immediate application in patient care.	52	52.5
I suggest development of CPD programmes with information for future use in patient care.	28	28.3
The CPD programme was subject matter focused.	41	41.4
The CPD programme was focused on helping students to learn.	32	32.3
The lecture content related to patients' needs.	16	16.2
The lecture content covered did not relate to patients' needs.	26	26.3
The presenter was knowledgeable on the subject area.	40	40.4
The presenter was not knowledgeable on the subject area.	4	4.0

*Multiple-response question, sum not equal to 100%

Of the respondents, 11.1% (n=11) participated in CPD for immediate application of the learned information and 52.5% (n=52) suggested development of CPD programmes with information for immediate application in patient care. Of the respondents, 49.5% (n=49) participated in CPD for future application of learned information and 28.3% (n=28) suggested development of CPD programmes with information for future use in patient care.

These findings are inconsistent with findings in support of *andragogy* (the science and art of how adults learn). Riggs (2010:388) found that adults learn when they can immediately and practically apply the learned information. Hughes (2005:46) found that nurses were negative towards participation in CPD if they were not able to implement what they had learnt immediately.

Of the respondents, 26.3% (n=26) indicated that the lecture content covered did not relate to their patients' needs. Hughes (2005:46) found that participants indicated that although they had learnt something new during the CPD activity, they had difficulty implementing it due to irrelevance of the information. The information did not address their patients' needs.

4.10 SECTION H: MOTIVATION TO LEARN

The *Concise Edition English Dictionary* (2005:213) defines motivation as "something as a need or desire that causes a person to act". In this study, motivation was the desire that caused the respondents to participate in CPD.

Nalle et al (2010:108) emphasise that intrinsic motivators such as increased knowledge, career advancement and professional competence have a major role to play compared to extrinsic motivators such as compliance with certification or licensure requirements in influencing nurses' participation in CPD.

The respondents were asked to indicate the factors that motivated them to participate in CPD and could indicate more than one item (see table 4.26). Of the respondents, 74.7% (n=74) indicated that staying current and updated on nursing care was a motivator for their participation in CPD, followed by 50.5% (n=50) who indicated the need for career progression and 16.2% n= 16) who indicated being away from work.

Table 4.26 Respondents' motivators to participate in CPD

Respondents' motivators to participate in CPD	Responses (n)	%
Need for yearly CPD hours for licensure and re-licensure	22	22.2%
Need for career progression	50	50.5%
Staying current and updated on nursing care	74	74.7%
Job satisfaction	25	25.3%
Improvement in curriculum vitae	28	28.3%
Changing patient health care needs and demands	45	45.5%
Being away from work	16	16.2%

*Multiple-response question, sum not equal to 100%

These results are consistent with Banning and Stafford's (2008:182) findings that motivation to learn could be influenced by internal factors, such as the need for knowledge and the currency of practice, as well as external factors, such as encouragement and reward. Post-registration and practice requirements and yearly CPD hour requirements did not motivate nurses' participation in CPD because they were mandatory licensure and re-licensure requirements. In a study on medical doctors' perceptions of CPD, Younies et al (2010:255) found that 31% indicated that they would not participate in CPD if it was not necessary for their licence while 65% indicated that their organisations would not support CPD if it was not necessary for their licensure.

Of the respondents, 74.7% (n=74) indicated that staying current and updated on nursing care, and 50.5% (n=50) indicated that the need for career progression affected participation in CPD. Kubsch et al (2003:206) maintain that nurses' participation in CPD activities is influenced by both intrinsic and extrinsic factors even though extrinsic reinforcement was not a strong motivator of CPD attendance.

4.11 RESPONDENTS' SUGGESTIONS FOR IMPROVEMENT OF CPD PROGRAMMES

The respondents were asked to indicate how CPD programmes could be improved. Of the respondents, 55.6% (n=55) stated that sponsorship for upgrading programmes and time off should be increased to enable more nurses to participate in CPD, and 32.3% (n= 32) reported that the employer (administration) and nurses should jointly diagnose learning needs. A further 3.0% (n=3) stated that patients' needs should guide the identification of the learning needs and 9.1% (n=9) indicated that CPD programmes could be improved if all nurses were given equal opportunity to attend CPD activities (see figure 4.19).

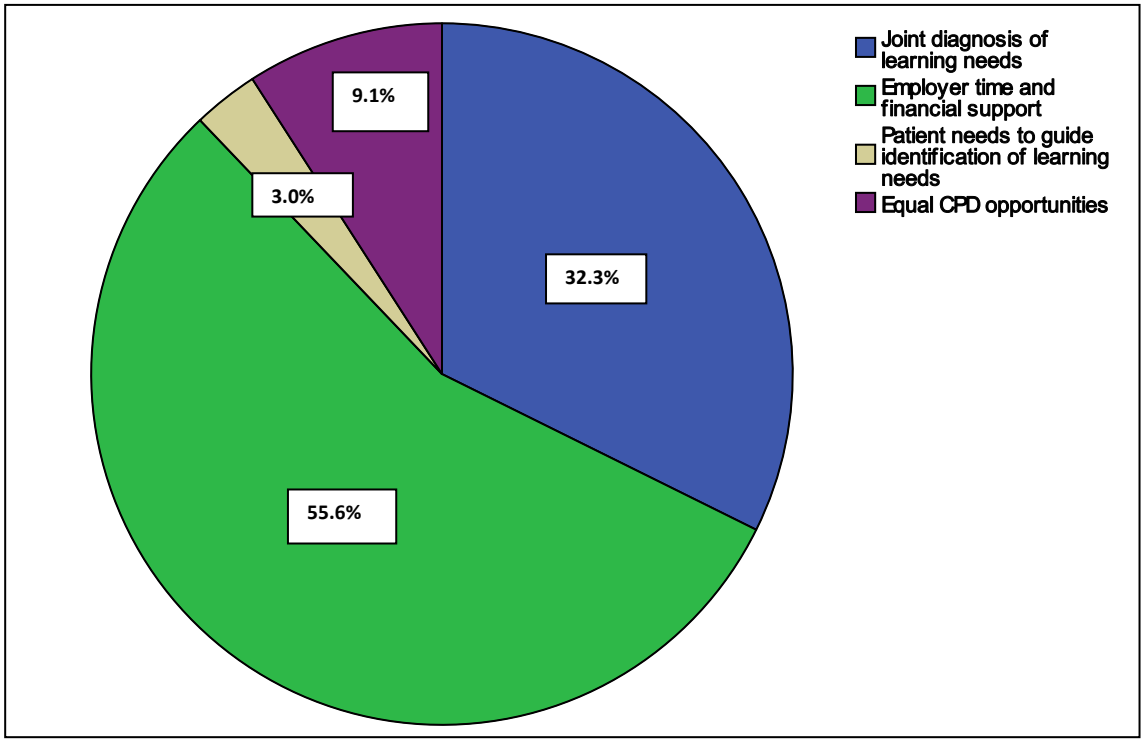

Figure 4.19 Respondents' suggestions to improve CPD programmes (N=99)

McLaren et al (2007:89) indicate that enhancing effectiveness of CPD programmes has been linked to positive employer attitude resulting in financial and time support for nurses to engage in CPD and supporting nurses' autonomy and flexibility in identifying learning needs and choice of CPD programmes. Moreover, organisations should work closely with other CPD providers and be part of local CPD networks. Banning and Stafford's (2008:182) findings that the effectiveness and availability of CPD programmes depends on employer and senior management support emphasise the importance of employer support.

Claflin (2005:263) states that CPD for nurses can be improved through the provision of adequate, suitable, flexible, and quality programmes that take into account individual nurses' needs. Furthermore, planning for the CPD programmes should aim at maximising the scarce resources of time, money, and personnel. Claflin (2005:264) suggests joint and systematic learning needs assessment that ensures the identification of necessary and relevant educational experiences for nurses. This approach facilitates

focusing on learning needs identified by the participants, and not on the preference, intuition, or convenience of the planners, employers or CPD providers.

The aim of CPD programmes should be to ensure that nurses are able to critically assess their clinical practice and identify their own learning needs (Hughes 2005:42). Lessing and De Witt (2007:56) state that CPD providers, employers and other stakeholders should ensure that CPD programmes are carefully designed to meet the contextual needs of those involved and also contain built-in monitoring and sustainable components.

4.12 CONCLUSION

This chapter discussed the data analysis and interpretation with reference to the literature review. The results were presented in tables and figures (bar and pie charts). Statistical analysis and testing was done between the independent variables and the dependent variable using the Chi-square and Spearman's rho correlation coefficient, where applicable.

Chapter 5 presents the findings, limitations and recommendations of the study.

CHAPTER 5

Findings, limitations and recommendations

5.1 INTRODUCTION

Chapter 4 described the data analysis and interpretation and findings. This chapter discusses the findings and limitations of the study, and makes recommendations for practice and further research.

The objectives of the study were to:

- Explore the practice of CPD among nurses in the selected public health care facility in Kisumu east district, Nyanza province, Kenya.
- Explore nurses' perceptions of CPD programmes in the selected public health care facility.
- Describe the CPD needs of nurses in the selected public health care facility.

5.2 SUMMARY OF THE RESEARCH FINDINGS

This section summarises the findings of the study according to the objectives.

5.2.1 Practice of CPD among nurses in the selected public health care facility in Kisumu, Kenya

Although the majority of the respondents (97.0%; n=96%) recognise that CPD is important to nurses, only 88.9% (n=88) participate in CPD while 11.1% (n=11) do not. Demographic factors of age such as gender, age, marital status, nursing qualification, years of experience, position in the ward and area of specialisation were found not to have an impact on the respondents' participation in CPD.

5.2.1.1 Respondents' last participation in CPD activities

The findings indicate that of the respondents, 80.9% (n=80) had participated in CPD activities in the last six months prior to the study. This means that most of the respondents participate in CPD sessions.

5.2.1.2 Reasons for participating in CPD activities

Of the respondents, 62.6% participated in CPD activities to be up to date on new developments in their areas of specialty; 48.5% (n=48) participated in CPD for career progression; 27.3% (n=27) participated to obtain additional qualification; 26.3% (n=26) to be prepared to mentor new nurses and students, 24.2% (n=24) in order to improve their curriculum vitae, 19.2% (n=19) participated in CPD in order to network with other nursing colleagues. The respondents thus had long-term career, development and service provision reasons for participating in CPD.

5.2.1.3 CPD hours attended by respondents in the last year

Of the respondents, 63.6% (n=63) had attended 20 CPD hours and more, while 13.1% (n=13) had attended up to 4 CPD hours in the year before the study, 7.1% (n=7) attended 10-14 hours and 15-19 hours while 9.1% (n=9) managed to attend 5-9 CPD hours in the last year. The majority of the respondents had been able to achieve the NCK (2008) recommended minimum 20 CPD hours.

5.2.1.4 Topic of last attended CPD activity

Of the respondents, 51.5% (n=51) indicated general clinical knowledge and skills as the topic; 21.2% (n=21) indicated other topics including heath informatics, health economics and financial management, and advanced cardiac life support; 17.2% (n=17) indicated unit specialty clinical content; 6.1% (n=6) indicated leadership and management, and 4.0% (n=4) indicated quality assurance..

It was noted that 51.5% (n=51) of the respondents indicated general clinical knowledge and skills as the last CPD topic attended yet when asked to indicate their priority learning needs, only 15.2% (n=15) identified acute medical surgical nursing as the

priority learning need. This may indicate that involvement of respondents in learning needs assessment may not have been done before designing of the CPD programmes.

5.2.1.5 Relation of topic to current area of practice/specialty

Of the respondents, 87.9% (n=87) indicated that the CPD topic was related to their current area of practice while 12.1% (n=12) indicated that the topic was not related to their current area of practice. The literature reviewed emphasises the importance of relevance of CPD programmes to learner needs and current area of practice. This indicates the need for health care facility administrators and designers of CPD programmes to actively involve nurses during the design stage to ensure that nurses attend CPD sessions that address their learning needs.

5.2.1.6 Sponsor of last CPD attended

The findings reveal that the hospital and the training agency sponsored most (74.8%; n=74) of the last CPD sessions attended by the respondents. Of the respondents, 35.4% (n=35) indicated that lack of finance was one of the barriers to their participation in CPD. Availability of sponsorship ensures good accessibility to CPD activities. It was also noted that of the respondents, 11.1% (n=11) sponsored some of the CPD sessions attended by themselves.

5.2.1.7 CPD activities

The respondents were able to identify most of the CPD activities, including workshops, seminars, upgrading programmes, scientific conferences, research, online courses and journaling.

Of the respondents, 72.7% (n=72) and 69.7% (n=69) indicated that they participated in workshops and seminars respectively; 36.4% (n=36) participated in scientific conferences; 19.2% (n=19) participated in research. Only 10.1% (n=10) and 15.2% (n=15) of the respondents participated in journaling and online courses, respectively. Of the respondents, 35.4% (n=35) indicated lack of finance as a barrier to participation in CPD activities. This could be a contributing factor to the low number of respondents

participating in journaling and online courses as these usually require self-sponsorship by the participants.

5.2.1.8 Teaching strategies used in conducting CPD activities

Group discussion was the most frequently used teaching strategy with a response rate of 74.7% (n=74) while field projects were not used at all during the last CPD activities attended by the respondents. Skills practice exercises, simulation, role play, critical-incident process, group therapy and case studies were also used. Although the teaching strategies varied, the respondents did not indicate sufficient active adult learner participation.

5.2.1.9 Preparation of nurses for CPD sessions

Of the respondents, 42.4% (n=42) indicated that they were prepared for the last CPD sessions they attended. Of these respondents, 80.9% (n=34) were sent preparation material for the programme; 19.1% (n=8) were sent the objectives of the programme as preparation. None of the respondents (0%; n=0) indicated that they were given web addresses to consult before entering the programme. These findings reflect minimal involvement of the learners before CPD programmes.

5.2.2 Respondents' perceptions of CPD

This section outlines the respondents' perceptions in this study.

5.2.2.1 Importance of CPD to nurses

The respondents perceived CPD to be important for various reasons. Of the respondents, 97% (n=96) indicated that CPD was important to nurses while only 3.0% (n=3) indicated that CPD was not important to nurses.

The majority of the respondents (96%; n=95) considered CPD to be important as it improved the quality of nursing care, increased nurses' self-confidence and self-esteem, increased nurses' motivation and enhanced recognition of nurses among health care

workers. Only 5.1% (n=5) of the respondents indicated that CPD addressed staff shortages by increasing their retention.

Regarding the relevance of CPD to practice, 19.2% (n=19) of the respondents indicated that what was learnt was not applied to practice; 9.1% (n=9) indicated that nurses attended CPD to improve their career prospects not focusing on patients' needs, and 1% (n=1) indicated that CPD was not important to nurses because what was taught was not relevant to practice..

The majority of the respondents clearly appreciated the importance of CPD in nursing as a profession. It is important for CPD programme designers and stakeholders to ensure that CPD programmes are relevant and address current practice, and patients' and nurses' needs. This will ensure that CPD sessions equip nurses with what is relevant to practice and enable them to apply what has been learnt in practice.

5.2.2.2 Self-concept and CPD

Regarding responsibility for identifying available CPD opportunities, 58.5% (n=58) of the respondents stated that it is their responsibility to do so and 33.3% (n=33) indicated that it was the employer's responsibility. Of the respondents, only 15.2% (n=15) indicated that they had identified the last CPD they had attended while 33.3% (n=33) indicated that the employer had done so.

With regard to identifying their learning needs, 33.3% (n=33) of the respondents had identified their own learning needs; 34.3% (n=34) jointly identified learning needs with the employer, while 2% (n=2) had their learning needs identified by the employer. Only 31.3% (n=31) of the respondents had their CPD needs guided by their patients' needs.

Of the respondents, 87.9% (n=87) indicated that participation in CPD had improved their self-concept as they were now able to diagnose their learning needs, make their own decisions related to CPD and take responsibility for their learning. However, 12.1% (n=12) of the respondents indicated that participation in CPD had not improved their self-concept.

The study found that minimal (34.3%; n=34) joint identification of learning needs with the employer does occur. Of the respondents, 35.3% (n=35) either identify the learning needs on their own or the employer does so for them. It is important for the employer and CPD providers to recognise that, as adult learners, nurses are able to diagnose their learning needs and take responsibility for their learning. Consequently, they need to be involved from the initial phase of designing CPD programmes to ensure relevance and success of these programmes.

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5.2.2.3 Respondents' perceptions of adult learning

Of the respondents, 67.7% (n=67) recognised that past experience enhances learning; 53.5% (n=53) indicated that adults brought past experience to the learning environment; 52.5% (n=51) indicated that adult learners were resourceful, while 5.1% (n=5) indicated that the teacher facilitating CPD possessed all the knowledge.

Facilitators of CPD programme for nurses should recognise that adult learners bring past experience to the learning environment and this should be used to enhance learning. CPD providers should act as facilitators for learning as they do not posses all the knowledge. Therefore approaches and strategies that enhance learner participation should be encouraged.

5.2.2.4 Respondents' perceptions of readiness to learn

Of the respondents, 82.8% (n=82) indicated that they participated in CPD to improve on their knowledge and skills; 20.2% (n=20) participated in CPD when the sessions directly addressed ward-based patient needs; 18.2% (n=18) participated due to licensure and regulatory requirements, and 9.1% (n=9) participated in CPD as a hospital requirement. It was noted, however, that 2% (n=2) of the respondents indicated that the timing of CPD activities were usually in line with the needs of the learner.

The majority of the respondents participated in CPD to improve on their knowledge and skills and this ultimately improves the quality of care provided to the patients and community they serve. This stresses the need for CPD programme designers to involve the learners and ensure that the timing meets their needs.

It was encouraging to note that the majority of the respondents (82.8%; n=82) participated in CPD to improve their knowledge and skills and only a small minority (18.2%; n=18) only participated for licensure and regulatory requirements.

5.2.2.5 Respondents' perception of orientation to learning

Regarding the respondents' expectations when participating, 52.5% (n=52) wanted CPD programmes with information for immediate application in patient care; 49.5% (n=49) participated for future use of learned information; 11.1% (n=11) indicated they participated if they could immediately apply learned information. Of the respondents, 28.3% (n=28) suggested developing CPD programmes with information for future use in patient care.

Of the respondents, 16.2% (n=16) indicated that the lecture content related to patients' needs while 26.3% (n=26) indicated that the lecture content covered did not relate to patients' needs. In addition, 40.4% (n=40) of the respondents indicated that the presenter was knowledgeable on the subject area while 4% (n=4) indicated that the presenter was not.

The findings indicate a need for involvement and consultation between the administration, CPD providers, and nurses regarding CPD application in patient care, patient needs, and nurses' development.

5.2.2.6 Respondents' perceived barriers to CPD participation

The respondents identified several factors that they perceived as barriers to their participation in CPD. The barriers are presented in order of importance: Staff shortage (67.7%; n=67); lack of time due to heavy workload (54.5%; n=54); lack of finance (35.4%; n=35); lack of information on available CPD sessions (21.2%; n=21); failure of administration to organise for off duty time (19.2%; n=19); lack of time due to family commitments (10.1%; n=10), and lack of interest (3%; n=3).

In the light of the findings, addressing staff shortages could reduce the workload on the nurses thus increasing their participation in CPD.

5.2.2.7 Respondents' perceived CPD motivators

The respondents identified internal and external factors which they perceived as motivators for their participation in CPD. Internal motivators were the main reason for participation as follows: need to stay current and updated on nursing care (74.7%; n=74); need for career progression (50.5%; n=50); for improvement in curriculum vitae (28.3%; n=28); for job satisfaction (25.3%; n=25), and for being away from work (16.2%; n=16).

External motivators that contributed to the respondents' participation in CPD included for changing patient health care needs and demands (45.5%; n=45), and for yearly CPD hours for licensure and re-licensure (22.2%; n=22).

The literature review revealed intrinsic motivators as key influences and extrinsic motivators as weak influences on nurses' participation in CPD (see chapter 4 section 4.10).

5.2.3 Nurses' CPD needs

This section describes the CPD needs of nurses in the selected public health care facility as identified by the respondents.

5.2.3.1 Respondents' learning needs

The priority learning needs identified by the respondents included evidence-based practice (45.5%; n=45); leadership and management and professional issues (35.4%; n=35); nursing research (32.3%; n=32); nursing education (28.3%; n=28); advanced practice (19.2%; n=19); acute medical surgical nursing (15.2%; n=15), and other learning needs (2%; n=2).

These findings are important especially to CPD stakeholders, trainers and the health care facility administrators as these learning needs should be used as a guide during the design of CPD programmes. The learners need to be involved in the identification of their learning needs guided by the needs of the patients, clients and communities that they serve.

Involvement of the learners in the identification of their learning needs ensures the relevance of the CPD programmes and enhances the application of acquired knowledge and skills to practice.

5.2.3.2 CPD hours that respondents would like to attend per year

Although 36.4% (n=36) of the respondents did not achieve the stipulated minimum 20 CPD hours, 80.8% (n=80) indicated that they would like to attend 20 CPD hours and above per year. This is in line with the NCK minimum set hours and indicates a willingness to participate in CPD although there may be barriers to their participation in the CPD activities.

5.3 LIMITATIONS OF THE STUDY

The study was conducted in a level five public health care facility in Kisumu east district, Kisumu, Kenya with a sample of 178 nurses. Out of the 178 distributed questionnaires only 110 were completed. Data cleaning was done and questionnaires that were incomplete or incorrectly completed were removed and not included for analysis. Only 99 of the 110 questionnaires were completed correctly and were thus used for data analysis. Kisumu East District has a total of 55 ministry of health-managed health care facilities with a total of 475 nurses. The study setting is in an urban area where there is improved nurses' accessibility in terms of transport and CPD information. Therefore the study findings may not be generalisable to other settings that do not have the same advancement in accessibility.

The researcher used non-probability purposive sampling in selecting the study participants because of unwillingness of the administration to share the list of nurses with the researcher before being cleared by the health care facility's ethics and research committee. Non-probability sampling contains unknown sources of bias that may affect external validity, therefore the study findings may not be generalised to other settings.

Notwithstanding the above limitations, the study findings provide vital information that may be used by the NCK, CPD providers and stakeholders, employers and nurses in developing CPD programmes for nurses practising in Kenya.

5.4 RECOMMENDATIONS

Based on the study findings, the researcher makes the following recommendations for practice and further research.

5.4.1 Continuing professional development practice

CPD providers, employers and nurses (adult learners) should be jointly involved in identifying learning needs from the beginning of the development of the CPD programmes. Learning needs should be guided by patients' needs to ensure that the CPD programmes remain relevant to practice and that nurses are able to apply what they have learnt in practice.

CPD providers should prepare the participants in advance by providing learning objectives, preparation material or even web addresses for the participants to access information early in relation to the CPD programme they are to attend.

Both personal and organisational factors play a major role as barriers to nurses' participation in CPD and these should be identified and addressed by both the organisation and the nurses so as to enhance participation in CPD. Staff shortages and lack of time due to heavy workload were indicated as the main barriers to participation in CPD. The administration (employer) needs to address staff shortages in order to ensure that more nurses are able to attend CPD activities.

CPD providers should note that intrinsic motivators are as important as extrinsic motivators in influencing nurses' participation in CPD. This underlines the need for employers and administrators to create a supportive environment which will enhance nurses' recognition of the need for lifelong learning.

It is also recommended that CPD providers plan to use teaching strategies that foster and facilitate the use of adult learners' past experience and also involve adult learners as resource persons.

5.4.2 Further research

Further research should be conducted on the following topics:

- Link between joint learning needs assessment and participation in CPD
- CPD practice and needs of nurses working in rural Kenya
- The role of E-learning in CPD practice in Kenya

5.5 CONCLUSION

This chapter summarised the study findings, discussed the limitations, and made recommendations for practice and further research. The findings and recommendations of this study should assist employers, CPD providers and nurses in promoting nurses' CPD participation. This will help alleviate the workload of nurses, encourage support, and improve quality service delivery.

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ANNEXURE A

ETHICAL CLEARANCE

A1: UNIVERSITY OF SOUTH AFRICA ETHICAL CLEARANCE LETTER

UNISA university of south africa

UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
(HSHDC)
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE

Date of meeting: 10 February 2011 Project No: 4341-923-2

Project Title: Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya.

Researcher: Onyango Damaris Auma Ochanda

Degree: MA Health Studies Code: MPCHS94

Supervisor: Prof SP Hattingh
Qualification: D Litt et Phil
Joint Supervisor: -

DECISION OF COMMITTEE

Approved [√] **Conditionally Approved** [ ]

Prof E Potgieter
RESEARCH COORDINATOR

Prof MC Bezuidenhout
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

A2: GREAT LAKES UNIVERSITY OF KISUMU ETHICAL CLEARANCE APPLICATION

GREAT LAKES UNIVERSITY OF KISUMU

INSTITUTIONAL ETHICAL REVIEW COMMITTEE

Application for Ethical / Scientific Approval

Please include the following in your application addressed to:

The Secretary,
GLUK Ethics Review Committee
Great Lakes University of Kisumu
P.O. Box 2224-40100
KISUMU

Email Address: bonifaceobondi23@gmail.com

Project Title: Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya

Date of submission: 20th December 2010

Name of all person(s) submitting research proposal: Onyango Damaris A. Ochanda

Position(s) held: Researcher/Student

Department/Group/Institute/Centre: University of South Africa (UNISA), Department of Health Studies

Address for correspondence relating to this submission:

P. O. Box 2224-40100,

Kisumu, Kenya

Telephone: +254-0721445063

Email: ochanda2002@yahoo.com

Name of Principal Researcher (if different from above, e.g. Student's Supervisor) : Prof. Susan Hattingh
Position held: Supervisor

1. **Describe the purposes of the research proposed**

   The purpose of this study is to explore the practice, perception and needs of nurses in relation to continuous professional development in Kisumu east district, Nyanza province, Kenya.

2. **Give a summary of the design and methodology of the project. Include in this section also, details of the proposed sample size, giving indications of the calculations used to determine the required sample size, including any assumptions you may have made. [if in doubt, seek statistical advise].**

   The research design to be used in this study is quantitative descriptive exploratory survey that seeks to examine the current continuous professional development practice, perception and needs of nurses in a selected hospital in Kenya. Non-probability convenience sampling method will be used to select nurses who meet the inclusion criteria into the study. The study will be conducted in a selected public healthcare facility in Kisumu East district, Nyanza province. Convenience sampling will be used to select a total of 210 nurses to be included in the study.

3. **Describe the research procedures as they affect the research subject(s) and any other parties involved.**

   This study will not include any administration of treatment to the subjects. The participants will only be required to complete a self administered questionnaire and questions asked will only be related to their participation in continuous professional development (CPD). The researcher therefore does not foresee any negative effects to the participants and other involved parties.

4. **What in your opinion are the ethical considerations involved in the proposal? (You may wish, for example to comment on issues to do with consent, confidentiality, risk to the subject(s) etc).**

   Attached to the questionnaire will be a participant information sheet that spells out the title, purpose and benefits of the study. The sheet also informs the participants that participation in the study is voluntary and their identification and collected information will be confidential by them not required to write their names anywhere in the questionnaire. The participant will then be asked to sign for agreeing to take part in the study.

5. **Outline the reasons which led you to be satisfied that the possible benefits to be gained from the project justify any risks or discomforts involved.**

   The study findings will contribute to positive health outcomes as the findings will guide organizations, policy makers and other stakeholders in designing programmes that address learning needs identified by nurses themselves and

which have been guided by the patient, family and community needs. This is beneficial as CPD programmes will be designed to address patient, family and community needs thus improving the quality of health care. No obvious risks are foreseen from this study as there will be no treatment administered to the participants.

6. **Who are the investigators (including assistants) who will conduct the research and what are their qualifications and experience?**

   Investigator: Onyango Damaris A. Ochanda
   Qualifications: BSc (Nursing)
   Hons. BA (Health Studies

7. **Are arrangements for the provision of clinical facilities to handle emergencies necessary? If so, briefly describe the arrangements made.**

   No injury or harm is anticipated to occur during this study as no treatment will be administered to the participants

8. **In cases where subjects will be identified from information held by another party (for example, a doctor or a hospital) describe the arrangements you intend to make to gain access to this information including, where appropriate, which Multi Centre Research Ethics Committee or Local Research Ethics Committee will be applied to.**

   The researcher will select participants who meet the inclusion criteria by going through the staff records stored by the Director of Nursing. The researcher plans to seek permission to collect data by seeking permission from the hospitals' research and training committee.

9. **Specify whether subject(s) will include students or others in a dependent relationship.**

   No. Subjects will only be qualified working nurses who meet the inclusion criteria as specified in the attached proposal

10. **Specify whether the research will include children or people with mental illness, disability or handicap. If so, please explain the necessity of involving these individuals as research subjects.**

    The research will not include children or people with mental illness, disability or handicap

11. **Will payments or any other incentive, such as a gift or free services, be made to any research subject? If so, please specify and state the level of payment to be made and /or the source of the funds/gifts/free service to be used. Please explain the justification for offering payment or other incentive.**

No compensations or incentives will be given to participants in this study

12. **Please give details of how consent is to be obtained. A copy of the proposed consent form, along with separate information sheet, written in simple, non-technical language MUST ACCOMPANY THIS PROPOSAL.**

    The participant information sheet attached to the questionnaire will outline the purpose and benefits of the study. The participants will also be informed that participation in the study is voluntary and their identification and collected information will be confidential by them not required to write their names anywhere in the questionnaire. The participant will then be asked to sign for agreeing to take part in the study.

13. **Comment On any cultural, social or gender-based characteristics of the subject which have affected the design of the project or which may affect its conduct.**

    No cultural, social or gender-based characteristics of the subject influenced/affected the design of the project of may affect its conduct

14. **State who will have access to the data and what measures will be adopted to maintain the confidentiality of the research subject and to comply with data protection requirements e.g., will the data be anonymized?**

    Confidentiality will be maintained by ensuring that individual identities of subjects are not written anywhere in the questionnaire and will not be linked to the information they provide. The collected data will only be accessible to the student/researcher and her supervisor and will not be publicly divulged.

15. **Will the intended group of research subjects, to your knowledge, be involved in other research? If so, please justify.**

    No. The researcher is not aware of any other study that the study participants may be involved in.

16. Date on which the project will begin **1st February 2011** and end **28th February 2011**

17. **Please state location(s) where the project will be carried out.**

    In a selected public healthcare facility in Kisumu East district, Nyanza province, Kenya

18. **State briefly any precautions being taken to protect the health and safety of researchers and others associated with the project (as distinct from the research subjects) e.g. where blood samples are being taken.**

    The researcher and others associated with the project will only be required to distribute a self-administered questionnaire to the participants. The researcher does not foresee any obvious risks that they may be exposed to during the conduct of the study.

Name..Damaris A. Onyango.....Date.....20/12/2010
(Proposer of Research)

Where the proposal is from a student, the Supervisor is asked to certify the accuracy of the above account.

Name.....PROF S.P. Hastings.....Date.....5/12/2010.....
(Supervisor of student)

A3: GREAT LAKES UNIVERSITY OF KISUMU ETHICAL CLEARANCE LETTER

GREAT LAKES UNIVERSITY OF KISUMU (GLUK)

Certificate of Approval of Research Protocol
GLUK Ethical Review Committee (GERC)
Ref: No. GERC/006/2011

To: Damaris A. Onyango (Principal Investigator)

Date: January 31, 2011

STUDY TITLE: **NURSES' PERCEPTIONS OF CONTINUING PROFESSIONAL DEVELOPMENT IN A PUBLIC HEALTH CARE FACILITY IN KISUMU, KENYA**

This is to inform you that your study protocol was assessed for scientific validity, justification and relevance of purpose. On the foregoing, the proposal was unconditionally approved.

This approval grants you the permission to proceed with your investigation for the stipulated timetable to its logical end. Should you desire to continue with the investigation upon the expiry of the study period, be sure to apply for Annual Review Process.

Note – always quote the GERC reference in future correspondence and that all applications / re-submissions should reach the GERC Secretary two weeks before the next scheduled meeting. Ordinary meetings are held EVERY FIRST MONDAY of the month.

Thank you.

Sincerely,

Great Lakes University of Kisumu
(GLUK)
P.O. Box 2224 - 40100
Kisumu, Kenya
Tel: +254 57 2023972 / 202487

Rev. Boniface Obondi
Tel. number: +254-0722-683813
SECRETARY

P.O. Box 2224 40100, Kisumu, Kenya, Off Tom Mboya Drive, Milimani, Tel Number 057 2023972 / 2024871, Fax: 057 2024577,
E-mail adminkisumu@tichinafrica.org, academics@tichinafrica.org, Website: www.gluk.ac.ke, www.tichafrica.org

Nairobi Campus, Lenana Road Wood Avenue junction, Opposite Len Wood Apartments
P. O. Box 60827 - 00200, City Square, Nairobi, Tel: 254 - 20 - 3876804, E-mail: tichnbi@wananchi.com, tichnbi@yahoo.com

A4: APPLICATION FOR PERMISSION FROM DIRECTOR OF MEDICAL SERVICES, NYANZA PROVINCE

ONYANGO, D.A,
P.O.BOX 22224-40100
KISUMU,
KENYA.
14TH DEC 2010.

PROVINCIAL DIRECTOR OF MEDICAL SERVICES,
NYANZA,
P.O.BOX 721,
KISUMU.
ATT: PROVINCIAL NURSING OFFICER.

Forwarded to Responsible Institutions – PCH / KEDH
for PNO.
PROVINCIAL MEDICAL SERVICES
14/12/2010

RE: APPLICATION FOR PERMISSION TO COLLECT DATA

I am a student in University of South Africa (UNISA) pursuing MA in Health studies. I hereby submit an application for permission to collect data study title, "Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya." The researcher plans to carry out the pilot study in January 2011 while the main study will be conducted in February 2011.

This research seeks to explore the practice, perception and needs of nurses in relation to their participation in continuous professional development. The participants will be drawn from a selected hospital in Kisumu East District. The research findings would be helpful in guiding the ministry of health, nursing policy makers and other stakeholders in the designing of appropriate continuous education programmes for nurses. The research findings will be shared with the participating institution and respondents after the submission of the completed thesis to UNISA, department of Health Studies.

Attached is the research proposal for your perusal. Please note that the proposal has been duly reviewed and approved by Prof. SP Hattingh, my supervisor and University of South Africa Ethics and Review Board.

I look forward to your positive response.

Yours Sincerely,

Onyango Damaris Auma

A5: PERMISSION FROM PUBLIC HEALTH CARE FACILTY

MINISTRY OF MEDICAL SERVICES

Telegrams: "MEDICAL", Kisumu
Telephone: 057-2020801/2020803/2020321
Fax: 057-2024337
E-mail: medsupt@africaonline.co.ke
When replying please quote

Ref. No: NPGH-ERC 1/1/2011 **Date** 18th February 2011

Dear Damaris Ochanda,

RE: Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya

Following an expedited review of your proposal, NPGH-ERC is satisfied with the ethical aspects of your study. It however recommends that you include your telephone contact and email address in the consent form.

Approval for your study has been **granted** for the duration 18th February 2011 to 17th February 2012. You shall be required to apply for extension of study beyond this period.

The NPGH-ERC wishes you the best as you carry out the study and kindly requests that you share the findings at the end of the trial.

Signed: .....

Dr. G.W. Mwangi

Secretary-NPGH-ERC.

ANNEXURE B

Data collection instrument

B1: PARTICIPANT INFORMATION SHEET AND CONSENT FORM

Study title: Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya

Institution: University of South Africa (UNISA), department of health studies

Researcher: Onyango Damaris Auma **Supervisor:** Prof SPHattingh
Tel No. +254-0721445063
Email: ochanda2002@yahoo.com

Dear respondent,

You are invited to participate in the above-mentioned study. The study is a research towards Masters of Arts degree in Health Studies, by the researcher.

Study purpose: The purpose of this study is to investigate continuing professional development of nurses in Kenya.

Participation: You are being asked to provide information regarding your participation in CPD activities by completing a self administered questionnaire. Permission has been given by your institution for nurses to participate in the study. The completion of the questionnaire will take approximately 30-45 minutes.

Risks: Minimum risk is expected from your participation in this study. Your decision to whether or not to participate in the study will not have any positive or negative repercussions on you.

Benefits: Your participation in this study will not be of immediate benefit to you; however, it will give you an opportunity to share information on issues that affect nurses' involvement in CPD activities. The information you share may help the researcher to identify nurses' practice, perception and needs in relation to

participation in CPD and also inform concerned stakeholders and policy makers on issues to address when developing CPD programmes for nurses.

Confidentiality and anonymity: You are assured that any information you share will remain strictly confidential. You understand that the content will only be used for the purpose of the study and that your confidentiality will be protected. The content will only be discussed between the researcher and her supervisor. Anonymity will be protected by not recording your name with your responses or identifying you in any way. Your institution will also have a unique code and will not be named when results are presented. Aggregate results will be published so your identity/institution will not be revealed in any reports or publications.

Conservation of data: All information collected from you will be kept in a secure place by the researcher. The data will be accessible only to the researcher and her supervisor.

Compensation: There will be no monetary compensation for your participation in the study.

Voluntary Participation: Your participation in this study is on voluntary basis and if you do participate, you can choose to withdraw from the study at any time with no penalty for doing so.

Thank you for taking the time to participate in this study.

By signing this form, I willingly participate in the research as indicated above. I understand the conditions and agree to complete the questionnaire given to me by the researcher.

Signature: ..... Date: .....

B2: QUESTIONNAIRE

QUESTIONNAIRE NUMBER: | | | |

Please answer all questions as indicated on this questionnaire

- Please note that your participation in this study is voluntary.
- Responses given to the questions will be treated with confidentiality.
- You are not required to write your name anywhere in this questionnaire.

1 SECTION A: DEMOGRAPHIC INFORMATION

Instructions: Indicate your response to the questions by writing your answer in the right hand side box.

1.1 Please indicate your gender:

	Answer
1.1.1 Male	1
1.1.2 Female	2

	1.1

1.2 What is your age in years?

	Answer
1.2.1 21-24 years	1
1.2.2 25-30 years	2
1.2.3 31-35 years	3
1.2.4 36-40 years	4
1.2.5 41-45 years	5
1.2.6 46 and above	6

	1.2

1.3 Indicate your marital status

	Answer
1.3.1 Never married	1
1.3.2 Married	2
1.3.3 Divorced	3
1.3.4 Widowed	4

	1.3

1.4 Indicate your basic qualifications

	Answer
1.4.1 Kenya Enrolled Community Health Nurse	1
1.4.2 Kenya Registered Community Health Nurse	2
1.4.3 Bachelor of Science in Nursing	3
1.4.4 Other, (please specify)	4

	1.4

1.5 Indicate any other formal qualifications acquired post your basic training

	Answer
1.5.1 Kenya Registered Community Health Nurse	1
1.5.2 Kenya Registered Psychiatric Nurse	2
1.5.3 Kenya registered Midwife	3
1.5.4 Bachelor of Science in Nursing	4
1.5.5 Other, (please specify)	5

	1.5.1
	1.5.2
	1.5.3
	1.5.4
	1.5.5

1.6 Indicate your highest level of completed nursing qualification

	Answer
1.6.1 Certificate	1
1.6.2 Diploma	2
1.6.3 Undergraduate degree	3
1.6.4 Masters degree	4
1.6.5 Other, (please specify)	5

	1.6

1.7 When was the above qualification attained?

	Answer
1.7.1 1-3 years after basic qualification	1
1.7.2 4-6 years after basic qualification	2
1.7.3 7-9 years after basic qualification	3
1.7.4 10 years and more after basic qualification	4

	1.7

1.8 Indicate the number of years of experience that you possess after your basic qualification

	Answer
1.8.1 1-2 years	1
1.8.2 3-4 Years	2
1.8.3 4-5 years	3
1.8.4 6-7 years	4
1.8.5 8-9 years	5
1.8.6 10 years and more	6

	1.8

1.9 Indicate the number of years you have worked in this hospital

	Answer
1.9.1 1-2 years	1
1.9.2 3-4 Years	2
1.9.3 4-5 years	3
1.9.4 6-7 years	4
1.9.5 8-9 years	5
1.9.6 10 years and more	6

	1.9

1.10 Indicate your area of specialization

	Answer
1.10.1 General nursing	1
1.10.2 Medical nursing	2
1.10.3 Surgical nursing	3
1.10.4 Paediatric nursing	4

1.10.5 Maternal health	5
1.10.6 Neonatal nursing	6
1.10.7 Mental Health and Psychiatric Nursing	7
1.10.8 Accident and Emergency Nursing	8
1.10.9 Critical Care Nursing	9
1.10.10 Other (Specify) ……	10

	1.10

1.11 In which area of specialization does your ward/unit fall?

	Answer
1.11.1 General nursing	1
1.11.2 Medical nursing	2
1.11.3 Surgical nursing	3
1.11.4 Paediatric nursing	4
1.11.5 Maternal health	5
1.11.6 Neonatal nursing	6
1.11.7 Mental Health and Psychiatric Nursing	7
1.11.8 Accident and Emergency Nursing	8
1.11.9 Critical Care Nursing	9
1.11.10 Other (Specify) ……	10

	1.11

1.12 Indicate the position held by you in this ward/unit

	Answer
1.12.1 Staff nurse	1
1.12.2 Nursing Officer ward in charge	2
1.12.3 Hospital day supervisor	3
1.12.4 Hospital Night supervisor	4
1.12.5 Education Nursing officer	5
1.12.6 Director of Nursing	6
1.12.7 Other (Specify) ……	7

	1.12

2 SECTION B: CONTINUING PROFESSIONAL DEVELOPMENT (CPD) PRACTICE

2.1 Do you participate in CPD?

	Answer		
2.1.1 Yes	1		2.1
2.1.2 No	2		

*(If "Yes" to question **2.1** go to question **2.2**, if "No" to question **2.1** go to question **2.10**)*

2.2 If yes to question 2.1, when did you last participate in a continuing professional development activity?

	Answer		
2.2.1 Less than 1 month ago	1		2.2
2.2.2 1- 6 months ago	2		
2.2.3 7-12 months ago	3		
2.2.4 1-2 years ago	4		
2.2.5 More than 2 years ago	5		

2.3 Indicate your reasons for participating in CPD

	Answer		
2.3.1 Only for re-licensure	1		2.3.1
2.3.2 To obtain additional qualification	2		2.3.2
2.3.3 For my career progression	3		2.3.3
2.3.4 To network with other nursing colleagues	4		2.3.4
2.3.5 To be updated with new developments in my speciality	5		2.3.5
2.3.6 To improve my curriculum vitae	6		2.3.6
2.3.7 To get a break from pressures of work	7		2.3.7
2.3.8 To be prepared to mentor new nurses and students	8		2.3.8
2.3.9 Other (Specify) ……	9		2.3.9

2.4 How many CPD hours have you attended in the last one year?

	Answer
2.4.1 0-4 hours	1
2.4.2 5-9 hours	2
2.4.3 10-14 hours	3
2.4.4 15-19 hours	4
2.4.5 20 hours and above	5

	2.4

2.5 How many CPD hours would you like to attend per year?

	Answer
2.5.1 0-4 hours	1
2.5.2 5-9 hours	2
2.5.3 10-14 hours	3
2.5.4 15-19 hours	4
2.5.5 20 hours and above	5

	2.5

2.6 What was the topic of the last CPD attended by you?

	Answer
2.6.1 General clinical knowledge and skills	1
2.6.2 Unit speciality clinical content	2
2.6.3 leadership and management	3
2.6.4 Quality assurance	4
2.6.5 Other.....	5

	2. 6

2.7 Indicate if the topic is related to your current speciality/area of practice?

	Answer
2.7.1 Yes	1
2.7.2 No	2

	2.7

2.8 What was your role in the last CPD session attended by you?

	Answer
2.8.1 As a participant	1
2.8.2 As a facilitator/trainer	2
2.8.3 Other (Specify) …….....	3

	2.8

2.9 Who sponsored the last CPD session attended by you?

	Answer
2.9.1 Self	1
2.9.2 The hospital	2
2.9.3 The training agency	3
2.9.4 Other (Specify) …….....	4

	2.9

2.10 Indicate factors you consider to be barriers to your participation in CPD?

(you may indicate more than 1 factor)

	Answer
2.10.1 Lack of interest	1
2.10.2 Lack of time due to heavy workload	2
2.10.3 Staff shortage	3
2.10.4 Lack of finance	4
2.10.5 Failure of administration to organize off duty	5
2.10.6 Lack of information on available CPD sessions	6
2.10.7 Lack of time due to family commitments	7
2.10.8 Lack of role models at work	8
2.10.9 Other (Specify) ……	9

	2.10.1
	2.10.2
	2.10.3
	2.10.4
	2.10.5
	2.10.6
	2.10.7
	2.10.8
	2.10.9

3 SECTION C: LEARNER'S NEED TO KNOW

3.1 Indicate your definition of continuing professional development

	Answer
3.1.1 Learning activities after basic formal training	1
3.1.2 Engaging in formal training after basic training only	2

	3.1.1
	3.1.2
	3.1.3

3.1.3 Participation in workshops, seminars, conferences, journaling and research only	3		
3.1.4 Participation in workshops, seminars, conferences, journaling, research and formal training	4		3.1.4
3.1.5 Other (Specify).....	5		3.1.5

3.2 The following include CPD activities

	Answer		
3.2.1 Upgrading program	1		3.2.1
3.2.2 Workshops	2		3.2.2
3.2.3 Seminars	3		3.2.3
3.2.4 Research	4		3.2.4
3.2.5 Journaling	5		3.2.5
3.2.6 Scientific conferences	6		3.2.6
3.2.7 Online courses	7		3.2.7
3.2.8 Other (Specify).....	8		3.2.8

3.3 The following are CPD activities that I participate in

	Answer		
3.3.1 Upgrading program	1		3.3.1
3.3.2 Workshops	2		3.3.2
3.3.3 Seminars	3		3.3.3
3.3.4 Research	4		3.3.4
3.3.5 Journaling	5		3.3.5
3.3.6 Scientific conferences	6		3.3.6
3.3.7 Online courses	7		3.3.7
3.3.8 Other (Specify).....	8		3.3.8

3.4 Do you consider CPD to be important to nurses?

	Answer		
3.4.1 Yes	1		
3.4.2 No	2		3.4

*(If "Yes" to question **3.4** go to question **3.5**, if "No" to question **3.4** go to question **3.6**)*

3.5 Why do you consider CPD to be important to Nurses

	Answer		
3.5.1 Addresses nurses shortage by increasing their retention	1		3.5.1
3.5.2 Improves quality of nursing care	2		3.5.2
3.5.3 increases nurses' motivation	3		
3.5.4 Enhances recognition among health care workers	4		3.5.4
3.5.5 Increases self confidence and self esteem	5		3.5.5
3.5.6 Other (Specify) ……	6		3.5.6

3.6 Indicate why you consider CPD not to be important to nurses

	Answer		
3.6.1 What is taught is not relevant to practice	1		3.6.1
3.6.2 What is learnt is not applied to practice	2		3.6.2
3.6.3 Nurses attend CPD to improve their career prospects not focusing on patients' needs	3		3.6.3
3.6.4 Attending CPD is a waste of time	4		3.6.4
3.6.5 Other (Specify) ……	5		3.6.5

3.7 Indicate your priority learning needs

	Answer		
3.7.1 Leadership and management	1		3.7.1
3.7.2 Evidence based practice	2		3.7.2
3.7.3 Professional issues	3		3.7.3
3.7.4 Nursing research	4		3.7.4
3.7.5 Nursing education	5		3.7.5
3.7.6 Advanced practice	6		3.7.6
3.7.7 Acute medical surgical nursing	7		3.7.7

3.7.8 Other (Specify) ……	8		3.7.8

4 SECTION D: SELF CONCEPT

4.1 I**nstructions**: Please indicate statements which apply to you in relation to continuing professional development (CPD). You may indicate more than one statement.

	Answer		
4.1.1 It is my responsibility to identify available CPD opportunities	1		4.1.1
4.1.2 It is the employer's responsibility to identify available CPD opportunities for nurses	2		4.1.2
4.1.3 The last CPD I attended was identified by myself	3		4.1.3
4.1.4 The last CPD I attended was identified by the employer	4		4.1.4
4.1.5 The last CPD I attended was identified by the trainers	5		4.1.5
			4.1.6
4.1.6 I identify learning needs myself	6		4.1.7
4.1.7 My learning needs are identified by the employer	7		4.1.8
4.1.8 I jointly identify my learning needs together with the employer	8		4.1.9
4.1.9 My CPD needs are guided by my patient's needs	9		

4.2 Do you think that your participation in CPD has improved your self-concept?

	Answer		
4.2.1 Yes	1		4.2
4.2.2 No	2		

4.3 If yes to question *4.2,* indicate how has participation in CPD improved your self-concept?

	Answer		
4.3.1 I am able to make my own decisions related to CPD	1		4.3.1
4.3.2 I am able to take responsibility for my learning	2		4.3.2
4.3.3 I am able to diagnose my learning needs	3		4.3.3

4.4 I**nstructions**: Please indicate statements which apply to you in relation to the last CPD activity you attended. You may indicate more than one statement.

	Answer		
4.4.1 The learning environment made me feel accepted and respected	1		4.4.1
4.4.2 The learning environment did not make me feel accepted and respected	2		4.4.2
4.4.3 There was mutual inquiry with the teacher	3		4.4.3
4.4.4 There was no mutual inquiry with the teacher	4		4.4.4
4.4.5 There was freedom of expression	5		4.4.5
4.4.6 There was no freedom of expression	6		4.4.6

5 SECTION E: EXPERIENCE

5.1 Indicate statements that are true in relation to adult learning and past experience

	Answer		
5.1.1 Adults bring past experiences to the learning environment	1		5.1.1
5.1.2 Past experience enhances learning	2		5.1.2
5.1.3 Adult learners are resourceful	3		5.1.3
5.1.4 The teacher facilitating CPD possesses all knowledge	4		5.1.4

5.2 The following are the teaching strategies that were used during the conduct of the last CPD that I attended

	Answer		
5.2.1 Group discussions	1		5.2.1
5.2.2 Case study	2		5.2.2
5.2.3 Critical-incident process	3		5.2.3
5.2.4 Simulation	4		5.2.4
5.2.5 Role play	5		5.2.5
5.2.6 Skill practice exercises	6		5.2.6
5.2.7 Field projects	7		5.2.7
5.2.8 Group therapy	8		5.2.8
5.2.9 Others (specify).....	9		5.2.9

6.1 SECTION F: READINESS TO LEARN

	Answer		
6.1.1 I participate in CPD sessions as a hospital requirement	1		6.1.1
6.1.2 I participate in CPD sessions when they directly address ward based patient needs	2		6.1.2
6.1.3 I participate in CPD to improve on my knowledge and skills	3		6.1.3
6.1.4 I participate in CPD due to licensure and regulatory requirements	4		6.1.4
6.1.5 The CPD timings are usually in line with developmental needs of the learner	5		6.1.5

6.2 Were you prepared for the last CPD programme attended by you?

	Answer		
6.2.1 Yes	1		
6.2.2 No	2		6.2

6.3 If YES to question 6.1, how were you prepared:

	Answer		
6.3.1 I was sent the objectives of the programme	1		6.3.1
6.3.2 I was sent preparation material for the programme	2		6.3.2
6.3.3 I was given web addresses to consult before entering the programme	3		6.3.3

6.4 If NO to question 6.1, do you think that the following would have added to your learning experience if information was provided in advance?

	Answer		
6.4.1 Objectives of the programme	1		6.4.1
6.4.2 Preparation material	2		6.4.2
6.4.3 Reading references	3		6.4.3
6.4.4 Web addresses	4		6.4.4

7 SECTION G: ORIENTATION TO LEARN

7.1 I**nstructions**: Please indicate statements which are true in relation to the last CPD activity you attended. You may indicate more than one statement.

	Answer		
7.1.1 I Participate in CPD only if I can immediately apply learned information	1		7.1.1
7.1.2 I participate in CPD sessions for future use of learned information	2		7.1.2
7.1.3 I suggest development of CPD programmes with information for immediate application in patient care	3		7.1.3
7.1.4 I suggest development of CPD programmes with information for future use in patient care	4		7.1.4
7.1.5 The CPD programme was subject matter focused	5		7.1.5
7.1.6 The CPD programme was focused on helping students to learn	6		7.1.6
7.1.7 The lecture content related with the patients' needs	7		7.1.7

7.1.8 The lecture content covered did not relate to patient's needs	8		7.1.8
7.1.9 The presenter was knowledgeable on the subject area	9		7.1.9
7.1.10 The presenter was not knowledgeable on the subject area	10		7.1.10

7.2 Please indicate whether the CPD programmes contributed to the following:

	Answer		
7.2.1 It helped me to improve my patient care	1		7.2.1
7.2.2 It helped me to improve my competence	2		7.2.2
7.2.3 It made me more aware of the ethical and legal issues about patient care	3		7.2.3
7.2.4 It provided me with more knowledge on evidence based care	4		7.2.4
7.2.5 It was interesting and I wanted to know more	5		7.2.5
7.2.6 It did not teach me anything new	6		7.2.6
7.2.7 I gained nothing by attending it	7		7.2.7
7.2.8 It was so boring as it did not reflect on actual clinical practice	8		7.2.8

8 SECTION H: MOTIVATION TO LEARN

8.1 Please indicate the factors that motivate you to participate in CPD. ***(you may indicate more than one factor)***

	Answer		
8.1.1 Need for yearly CPD hours for licensure and re-licensure	1		8.1.1
8.1.2 Need for career progression	2		8.1.2
8.1.3 Staying current and updated on nursing care	3		8.1.3
8.1.4 Job satisfaction	4		8.1.4

8.1.5 Improvement in my curriculum vitae	5		8.1.5
8.1.6 Changing patient health care needs and demands	6		8.1.6
8.1.7 Being away from work	7		8.1.6

9.0 Please indicate what and how the CPD programmes can be improved

_____
_____
_____
_____
_____

ANNEXURE C

STATISTICIAN REPORT

ASSESSMENT OF DATA COLLECTION INSTRUMENT

Study title: "Nurses' perceptions of continuing professional development in a public health care facility in Kisumu, Kenya"

Instructions: Please indicate your view about the data collection instrument by ticking against the appropriate number option

Key:

1-poor

2-fair

3-good

4-very good

5-Excellent

Item	1	2	3	4	5
Clarity of participant information sheet					✓
Overall appearance				✓	
Page layout				✓	
Clarity of instructions			✓		
Legibility				✓	
Realistic of completion time				✓	
Assurance of anonymity				✓	
Relevance of items to literature review on continuing professional development for nurses				✓	
Information required not too revealing					✓

Any other comments:

- 1.10 - is a study area Question yet this is not clearly precise
- Some of the options are not exhaustive hence need to specify how fractional values are treated.

Name of statistician: OKEYO NICKY ODHIAMBO

Signature: [signature]

Date: 15/5/2011