ABSTRACT

The context of work for nurses is rapidly changing due to changes in care, innovative technologies, and the emergence of new knowledge. Participation in Continuing Professional Development (CPD) in many countries in Africa remains low. **Objective**: The broad objective of the study was to determine CPD practices among nurses in Western Kenya. The specific objective was to examine the teaching and learning strategies and activities for CPD. **Methodology**: This was a descriptive cross-sectional study design of 235 stratified and randomly selected nurses and 4 CPD Coordinators from 4 County Hospitals in Western Kenya. The Key informants and the respondents for Focus Group Discussions were selected purposively. Data for this research was collected using a semi-structured questionnaire, interview schedules and Focus Group Discussion guide. Data analysis was done using statistical package for social sciences (SPSS V. 20). Qualitative data were analyzed thematically. **Results**: Majority (58.6%) of the nurses participated in formal CPD activities like conferences, workshops, and seminars in the past 12 months. CPD strategies employed were in form of case presentation (66.4%), group discussions (56%) and demonstrations (35.3%). Findings from Key informants also showed that the commonly used teaching and learning strategies by nurses were case presentations, lectures, and discussions. In focus group discussion, the nurses cited lectures and demonstrations as teaching and learning strategies commonly used by nurses. **Conclusion and Recommendations**: CPD activities and strategies that were mostly used included; conferences and seminars, case presentations group discussions, demonstrations and lectures. The study recommends the use of innovative, diverse and flexible teaching strategies for CPD that utilize adult learners past experiences.
1.0 INTRODUCTION

The work context of nurses is rapidly changing due to changes in care, innovative technologies, and the emergence of new knowledge. Continuing Professional Development (CPD) for nurses has become necessary in order to maintain and improve standards of health care practice, through the development of knowledge, skills, and attitudes (Golding, 2006). Even with the technological changes in health care, CPD for nurses in many countries in Africa remains low despite evidence of good practice and innovation, including planning of CPD at the national level to accredited standards (WHO, 2010).

Continuing professional development provides a constant commitment to maintaining specific skills level and career progression, which ensures that nurses’ skills and knowledge are current and relevant in addressing patients or clients, needs (Cooper, 2009). Participation in continuing education programs and training sessions is critical for keeping nurses' skills updated (Mayes & Schott-Baer, 2010). In addition, participation in CPD enables nurses to gain competence in their areas of work leading to increased accountability to society for an ongoing commitment to remain current and safe to practice in the profession (Cooper, 2009). Similarly, continuous learning helps to reduce gaps between theory and practice enhancing clinical competence for continued professional competence and practice (Nale et al., 2010).

Institute of Medicine, (2010) further suggests that potential sources for better learning may lie in the field of adult education research and theory. Research in areas such as Andragogy, experimental learning, self-directed learning, lifelong learning and critical reflection may offer information that may be incorporated into continuous education delivery methods (Filipe, et al., 2014). Thus, in an attempt to get-to-get a deeper understanding of how adults learn and the appropriate strategies for CPD that allow for proper planning of CPD programs for nurses, it is important to understand the assumptions of adult learning theory as outlined by Malcolm Knowles. Further, a report by the Institute of Medicine, (2010) shows that individual learning styles differ greatly among learners and therefore innovative learning methods have to be developed to help health professionals maintain their competencies. Learning methods have constantly changed from a focus on professionals' attendance with the limited set of educational activities to a focus on demonstrating changing professional practice and improving patient outcomes. Thus, creating appropriate methods, strategies, processes, and context are imperative for professionals to provide high-quality care possible. 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 programs should, therefore, address adult differences in abilities, interests, motivation, physical and intellectual handicaps (Walkin, 2006).

In Kenya, CPD is currently mandatory and there is no commonly accepted approach to lifelong learning. However, there is broad agreement that patients are best served when those who care for them maintain competence by engaging in continuous learning and assessment strategies (Galer, 2005). The Nursing Council of Kenya (NCK)’s mandate is to strengthen CPD in Kenya as a means of ensuring continued competence and staying current in practice. Since June 2008, it has been a requirement for all nurses in Kenya to achieve a minimum of 20 hours of CPD per year in order for them to be licensed or to renew their licenses of practice every three years (NCK, 2008). Nurses are required to participate in either formal or informal CPD by enrolling in a program leading to the acquisition of a different level of nursing practice. This is the expectation that the strategies and activities would be highly self-directed with content and learning methods.

However, research has shown widespread barriers to the successful planning, implementation, participation in and recording of CPD for nurses in Kenya (Lakati, 2012). In a study conducted on barriers to enrollment to a nursing upgrading program in Kenya, the cost of school fees was identified as a major barrier (Lakati, 2012). Elsewhere, inflexible learning methods, limited time and resources, heavy workload and absence of colleagues to cover their work nurses working in night shift (Barriball, 1996; Larcombe, 1991; Watson, 2003; Hamdeh, 2008) have cited as other barriers preventing uptake of CPD. Based on the aforementioned challenges, most health care organizations have used short-term skill development at the expense of lifelong learning strategies in order to fill a clinical skills deficit as an immediate solution to staffing shortages (Nursing and Midwifery Council, 2000). Others prefer to use their limited funding to organize and conduct in-house training with the hope that it would meet the changing health needs of the health care environment (Draper, 2007).

Another approach to CPD has been enthusiastically taken on as a way of raising the skills of large numbers of staff in a cost effective manner, as in the Virtual Nursing School project adopted by Kenya, Uganda and Tanzania with focus that improving the skills of existing staff would more quickly boost productivity and quality of care (AMREF, 2011). This creates a gap in the effectiveness of this kind of training in meeting the needs of an individual learner.
Knowles (1980) argues that effective teaching and learning strategies for CPD should leverage on assumptions, principles, and characteristics of adult learning. More often, these concepts are not put into consideration during planning and implementation of CPD programs for nurses. The purpose of this study was to investigate CPD practices among nurses in Western Kenya in order to inform policy.

2.0 OBJECTIVES

The broad objective of the study was to determine CPD practices among nurses in Western Kenya. The specific objective was to examine the teaching and learning strategies and activities for CPD for nurses in Western Kenya.

3.0 METHODS

A descriptive cross-sectional study design was used to carry out the study that was conducted in Western Kenya region. The study further adopted a mixed method approach, which provided for triangulation that sought convergence and corroboration of the results from questionnaire, interviews and Focus Group Discussions (FGD). The qualitative technique provided the detailed description of variables under study and was meant to support the quantitative data.

The sampling procedure of this study adopted stratified random sampling technique for the individual nurses in which the target populations of 569 respondents were grouped into four strata. In each stratum, a simple random sampling was undertaken to determine the sample.

The CPD Coordinators were sampled using purposive sampling. Again, the number of CPD Coordinators (4) was small and manageable without sampling. Therefore, the total sample for the study was 239. Questionnaires, interview schedules and Focus Group Discussions were used to collect the data.

Data were summarized using frequencies, means and standard deviation for descriptive statistics. The data obtained was presented using percentage distributions, bar graphs, and frequencies. The audio-recorded information from focus group discussions was transcribed into written words and used for narrations. The findings from FGD and interview schedules were tallied in frequencies and summarized in words to generate themes.
Ethical approval was obtained from Institutional Research and Ethics Committee (IREC) based in Moi University and Moi Teaching and Referral Hospital. A written cover letter was distributed to the participants clarifying the purpose of the study, together with the questionnaire. Participation was voluntary and the information provided was treated with the utmost regard for confidentiality and anonymity.

4.0 RESULTS

4.1 Findings on Demographic Information

A total of 232 (98.7%) out of 235 nurses completed the questionnaire. Among them, 68 (29.3%) were aged between 31-40 years and 177 (76.3%) were female. Majority 165 (71.1%) were married and 134 (57.8%) had Diploma level of education as in table 1. The median (IQR) number of years of experience was 15 (6, 25).

Table 1: Socio-demographic information

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
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<tr>
<td><strong>Age-group (in years)</strong></td>
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<tr>
<td>20-30</td>
<td>52</td>
<td>22.4</td>
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<tr>
<td>31-40</td>
<td>68</td>
<td>29.3</td>
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<tr>
<td>41-50</td>
<td>64</td>
<td>27.6</td>
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<tr>
<td>&gt;50</td>
<td>48</td>
<td>20.7</td>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>55</td>
<td>23.7</td>
</tr>
<tr>
<td>Female</td>
<td>177</td>
<td>76.3</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>165</td>
<td>71.1</td>
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<tr>
<td>Single</td>
<td>49</td>
<td>21.1</td>
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<tr>
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<tr>
<td>Widowed</td>
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<tr>
<td><strong>Education level</strong></td>
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<tr>
<td>Certificate</td>
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<tr>
<td>Diploma</td>
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<tr>
<td>Degree</td>
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<tr>
<td>Masters</td>
<td>3</td>
<td>1.7</td>
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</table>
4.2 Continuing Professional Development Activities Participated in the Last 12 Months

Findings regarding CPD activities participated by the nurses in the past 12 months, indicated that more than half of the respondents 136 (58.6%) reported having participated in conferences/workshops/seminars. 99 (42.7%) participated in local hospital events while 59 (25.4%) participated in short courses or refresher courses. The activities that were least participated by the nurses included; Journal clubs (3%), articles for publication (3.4%), project work (8.6%), e-learning (11.6%) and distance learning (15.5%) as indicated in figure 4.1. This indicates that majority of the respondent participated in conferences, workshops, and seminars during CPD.

![Figure 1: Activities participated in last 12 months](image)

4.2 Teaching and learning strategies used during last Continuing Professional Development

![Figure 2: Teaching and learning strategies used during last Continuing Professional Development](image)
Among the teaching and learning strategies used during last CPD, more than half of the respondents reported to have participated in case presentation 154 (66.4%), group discussions 130 (56%) and 24.6% reported to have participated in mentorship, 19% role plays and only 11.6% of the respondents reported to have participated in field projects and 8.6 % in simulations as indicated in figure 2 above.

Findings from Key informants also showed that the commonly used teaching and learning strategies by nurses were case presentations, lectures, and discussions. In focus group discussion, the nurses indicated that the learning strategies commonly used were lectures and demonstrations; however, the nurses felt that lectures were not effective strategies because the learners were passive as eluded by a respondent, who said:

...I feel that demonstrations work better so that people can apply into practice what they have learned but if we use lectures, some students tend to switch off...

5.0 DISCUSSION

From the findings, the majority of the nurses reported having participated in conferences/workshops/seminars in past 12 months. 99 (42.7%) participated in local hospital events while 59(25.4%) participated in short courses or refresher courses. Similar findings were obtained from FGDs and interviews where the majority of nurses reported to have participated in conferences, workshops, and seminars during their past CPD. These findings are consistent with previous studies that found participation in workshops, seminars, conferences, in-service programs, and academic programs as the common choice of CPE activities among nurses (Chong, 2014; Furze, 1999; Gristi, 2006).

Also, in this study it was found that participation in journal clubs, writing articles for publication and e-learning was low; Journal clubs (3%), articles for publication (3.4%), e-learning (11.6%).This finding is similar to that reported by (Chong, 2014; Pathan, 2008). Pathan, (2008) found that only 45% of the respondents indicated that they had read one or more nursing journal articles in the past two years and that only 29% of the nurses used the internet for CPE purposes.

Pathan (2008) suggests that the lack of provision of nursing information, such as journals and books in clinical areas, and being discouraged from reading in the workplace has deterred nurses from engaging in this type of CPE. Other similar findings from Hong Kong indicate...
that nurses were not particularly interested in undertaking research, despite knowing the importance of evidence-based nursing (Lee et al. 2005). On the contrary, findings from Jianfei et al., (2008) and Sargeant et al., (2006) indicate that although some professionals prefer traditional learning formats that include more face-to-face contact, e-learning has the advantage of enabling health professionals to set their own learning pace, review content when needed, and personalize learning experiences. Bryant et al., (2005) adds that e-learning is associated with lower costs, potentially greater numbers of participants, and increased inter-professional collaborations. Xiao, (2008) further affirms that flexible, diverse and competency-based learning programs in CE can prepare the nursing workforce to more appropriately cope with the challenges that arise from a rapidly changing healthcare environment.

The fact that participation in research publication and journaling in this study was low could be attributed to the low number of nurses with degree or masters level qualifications (23%, 1%) which may affect their interest and preparedness in research, as they may not have the skills to undertake research and learn independently. (Benner, 1984) agrees that, at each level of expertise nurses benefit from different types of learning activity. A study of novices nurse and experts shows that the novice nurse benefits from formal training opportunities such as access to nurse educators seminars and conferences. The nurse educators’ groups preferred work based opportunities like dialogue and peer-to-peer interaction (Benner, 1984). The same author further described concerns expressed about CPD activities by nurses, which included; equity of access, relevance to practice, integration of new knowledge into practice, and the limited opportunities to access and engage in CPD because of staff shortages and changes in skill mix.

This study also found that 154(66.4%) of the nurses reported having participated case presentation and 130(56%) in group discussions. 24.6% reported to have participated in mentorship, 19% role plays and only 11.6% of the respondents reported to have participated in field projects. Findings from Focus Groups Discussions (FGDs) and key informants portray similar results were case presentations and group discussions were cited as commonly used teaching and learning strategies although they also reiterated that lectures are widely used during seminars and conferences. The findings agree with Chunping Ni, (2014), where over 40% of the respondent’s selected case discussions, simulated training and academic,
meetings as favorable methods for obtaining CE. In addition, the same study indicates that 68.1% preferred case discussion.

The results further agree with Yfantis et al (2010) who found that 40% of the CPD activities took a seminar form, while 30% accounted for both small group teaching and educational programs. Riggs (2010) maintains that CPD providers should employ different teaching approaches that encourage learners' participation as adult learners learn best using different learning styles. (Kearsley, 2010) further indicate that nurses' prefer teaching and learning strategies that are problem-based and collaborative rather than didactic, and are consistent with their experiences, interests, background, goals and preferred learning styles.

Other related findings from a study conducted that used an instructional method for assessment at the graduate level for a psychopathology course in Social Work shows that in order to enhance the learner's ability to acquire and retain knowledge, that Andragogy can help adult learners acquire new knowledge in a way that makes sense to the learner and their unique learning strategy (Carpenter Aeby & Aeby, 2013). This study affirms the importance of utilizing adult learning theory when teaching adults. Another study by (Cartney, 2000) further supports the need for instructors’ understanding of student’ learning styles as an effective method of teaching students and continuing their professional development.

On the job training, coaching and mentoring have been identified in the literature as some of the most frequently used models in health care (Cowan & Flint, 2012) which is not the case in this study as findings from this study indicate that these strategies were least used (Mentoring (24%). Findings of this study are also contrary to a study on the use of mentorship by doctors as a CPD delivery mode where 80.8% of doctors strongly agreed that mentorship was a powerful form of learning and is essential to the transmission of values, attitudes and behavior in their performance (Ngeny, 2012). Flint further affirms that continuous mentoring whether consciously or unconsciously holds the future of health care as new skills, knowledge, and techniques are shared between colleagues, teamwork is enhanced, leadership skills are developed and role models are nurtured for a sustainable quality of practice.

In summary findings of this study concerning teaching and learning strategies and activities for CPD, reveal that the commonly used CPD activities are conferences, workshops, and seminars. The commonly used teaching strategies are case presentations, group discussions,
and lectures. From the discussions, it can be deduced that the CPD strategies and activities, which are commonly used by nurses, however, they tend to be rigid and inflexible and the staff is required to participate outside workstation. In addition, they tend to conform towards traditional methods of teaching learning, which are predominantly teacher-driven with minimal participation from the learners. With the current trends in healthcare and technological advances, it is imperative to explore the use flexible, diverse and innovative CPD programs for nurses. The discussions also point toward the need for teaching/learning approaches/strategies/activities that encourage learners’ engagement and active participation and those that tap into learners into adult learners’ experiences such as group discussions, problem-solving activities, and simulations (Nafukho et al, 2005).

Walkin (Walkin, 2006) emphasizes that learning theories and teaching strategies used in delivering CPD programs should address adult differences in abilities, interests, motivation, physical and intellectual handicaps. Riggs (2010) adds that adult learners learn best using different learning styles. Also as indicated in the findings and as described in literature E-learning and social media platforms like Whatsapp can be seen as an innovation of great promise in future for widening access, improving cost effectiveness and maintaining staff in the workplace whilst they undergo CPD (WHO, 2011). However, its effectiveness as a CPD strategy needs to be explored.

6.0 CONCLUSIONS

It was established from the study that, the majority of the nurses reported to have participated in formal CPD activities, conferences/workshops/seminars, and local hospital management events. It was also established from the study that the most commonly used teaching and learning strategies for CPD were case presentation and group discussions and lectures. In summary, it can be concluded that Knowles’ assumptions and characteristics of adult learning theory have not been fully utilized during planning and implementation of CPD programs for nurses.

The study recommended that Coordinators of CPD should consider the use of diverse, innovative and flexible teaching and learning approaches that use adult learners past experiences such as facilitated group discussions, case presentations, demonstrations, mentorship, role play, simulation, mobile technology and regular meetings which encourage learners’ participation.
REFERENCES