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Radiographers' attitudes towards continuous professional development (CPD) at state hospitals in Windhoek Namibia

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Abstract

Purpose: Continuing professional development (CPD) is a systematic and ongoing process of education undertaken by health professionals to maintain up-to-date knowledge and develop professional skills. CPD activities are formal or informal. This research investigated radiographers' attitudes towards CPD at state hospitals in Windhoek. The research objectives were to determine: the factors responsible for the radiographers' participation in and attitudes towards CPD; radiographers' opinions towards mandatory CPD; and radiographers' attitudes towards the department's management support of CPD activities.

Methods: Questionnaires were distributed to 14 radiographers at state hospitals in Windhoek.

Results: There was a response rate of 100% (n=14). Ninety-three percent of the respondents indicated that radiographers' CPD is not well structured. Seventy-one percent showed a willingness to participate in CPD activities; 79% were unsatisfied with how their departments' management motivates, supports, and encourages them to partake in CPD activities. Ninety-three percent were of the opinion that radiographers' CPD should be mandatory whereas 57% indicated that their certification should not be dependent on compulsory CPD requirements.

Conclusion: The results showed that the majority of respondents were self-motivated to engage in CPD activities. However, 57% expressed their despondency regarding the dependence of council registration on CPD participation. The majority (93%) indicated that the CPD programmes are not well structured. Thus the recommendation would be to create conducive conditions for successful participation in CPD activities.

Keywords continuous professional education, continuing education units

Introduction

Continuing professional development (CPD) is a systematic and ongoing process of education undertaken by health professionals to maintain up-to-date knowledge and develop professional skills.^[1] Over the last decade, changing technologies in medical imaging necessitated and justified the need for continuing education and training among radiographers.^[2] A general expectation from the public is that healthcare professionals are acquainted and have up-to-date knowledge and skills suitable to their specialist field of work.^[2] Literature indicates there is emphasis on the need for individuals to take responsibility for their own learning.^[3] Soni^[4] suggested that despite the economic benefit associated with education and training, this benefit alone is not a sufficient motivator for professionals to engage in further studies. A range of motivational obstacles need to be recognised and addressed to allow radiographers to participate in education and training.^[4]

Diagnostic radiographers are responsible for providing safe and accurate imaging examinations in a wide range of clinical

environments. They do so, by using a variety of imaging modalities and techniques so that appropriate management and treatment of patients can continue. For this reason, a CPD programme for radiographers is crucial to meet the goals of providing improved service standards to patients. The implementation of new radiographic techniques, and replacement of old diagnostic equipment with modern digital equipment, obligates radiographers to keep themselves technologically updated by undertaking CPD activities.^[3]

Both formal and informal activities, which may be required to maintain up-to-date professional skills, knowledge and attitudes of healthcare professionals, are all incorporated in CPD.^[1] In the United Kingdom (UK), New Zealand, South Africa, and Australia, it is mandatory for healthcare professionals to obtain a certain number of continuing education units (CEUs) in order to maintain their registration with their respective regulatory bodies.^[5,7]

In 2010, the Health Professions Council of Namibia (HPCNA) implemented a mandatory CPD policy for all health profes-

sionals. This policy requires radiographers to obtain 30 CEUs annually; five of which should be ethics related. The HPCNA suggests various ways such as workshop presentations, directed reading programmes, journals, research and in-service training pertaining to a health care professional's line of work through which these units can be obtained. Table 1 depicts the different levels of ranking which apply to these CPD activities.

The HPCNA awards specific CEUs for each of the abovementioned CPD activities. The weight of the units awarded is determined by the hours of participation. The standard regulation is that for each hour of participation one CEU is awarded. There are no CPD programmes at the radiology departments of the two state hospitals in Windhoek. However, the private radiology departments offer CPD programmes, which all the radiographers within the Windhoek metropolitan may access and participate in.

As the recent legislation requires mandatory participation in CPD events, this study investigated radiographers' attitudes towards CPD with the aim of determining

the factors responsible for their attitudes to CPD and participation in CPD, as well as their opinion towards mandatory CPD. The study also determined radiographers' attitudes towards the respective departments' management support for CPD activities.

Materials and methodology

Ethical clearance to conduct the study was obtained from the Namibian Ministry of Health and Social Services, as well as the principal radiographers of the radiology departments. Additionally, each respondent signed an informed consent form. Personal details were not included on the questionnaire to ensure anonymity.

A quantitative descriptive study was conducted by means of a self-administered questionnaire. The questions were derived from previous studies^{13,81} and adapted to the Namibian context. The questionnaire consisted of closed and open ended questions. The research tool (questionnaire) was distributed to the 14 (n=14) radiographers practicing at the two Windhoek state hospitals.

The questionnaire comprised 22 items: twenty closed-ended and two open-ended questions. The face and content validity were determined by piloting the questionnaire on one radiographer and a university lecturer as both were well versed with CPD content. Based on their responses and comments the questionnaire was amended to include questions assessing attitudes according to the Jefferson's Scale of Physician Lifelong Learning (JSPLL).¹⁸¹ This scale measures orientation towards lifelong learning, using 19 questions answered on a 4-point Likert scale (strongly disagree=1, disagree=2, agree=3, strongly agree=4). A higher score on the JSPLL indicates greater orientation towards lifelong learning. Selected questions were used to calculate the Chronbach alpha value that ranged from 0.64 to 0.75.

Study sample

Using non-probability convenience sampling, all 14 radiographers at both Windhoek state hospitals were included in the study cohort. Only radiographers employed at the two study sites were included in the cohort due to logistical and financial reasons.

Data collection

Data were collected during August 2014. Introductory individual debriefing sessions were conducted with the respondents.

During these sessions, the purpose and the rationale of the study were explained. They were then invited to participate in the study. An information leaflet and the questionnaire were presented to all who agreed to take part in the study. The respondents (n=14) returned their completed questionnaires the following day.

Data analysis

Data were analysed using Statistical Package for the Social Sciences (SPSS) version 22. The graphs were created using Microsoft Office Excel 2007/2010. Participation in CPD was determined using descriptive statistics presented by means of frequency distributions.

Results

Fourteen (14) completed questionnaires were returned: a 100% response rate. The content of CPD, incentives associated with mandatory CPD, the time during which CPD activities are scheduled, personal obligations, and support from employers, were identified as factors that influence radiographers' attitude towards, and participation in, CPD activities. The results of each of these are presented below.

• The content of the CPD activity

Stage of clinical competence (SOCC)

The question on the SOCC model produced the following results. Seventy-nine percent (n=11) of the respondents indicated that they were not aware of their progress on the professional stages in the light of such a model, and as well as their future professional development. Seventy-one percent (n=10) of the respondents agreed that the SOCC would help them to establish a learning culture that encourages and provides space for CPD and lifelong learning (LLL); 29% (n=4) disagreed. Additionally, 93% (n=13) thought that the competency model is a good strategy to stim-

ulate radiographers' participation in CPD provided the topics are pitched at radiographers' SOCC. Furthermore, 93% (n=13) were of the opinion that it would be motivating if their professional development and progress on the SOCC could be associated with salary supplements.

In-service training

The content of in-service training was a factor that affects radiographers' participation in CPD. The respondents selected topics of preference for inclusion in in-service training as shown in Figure 1. They provided multiple responses for this question. Radiography technique and theory, related to various professional specialties in radiography, was chosen by 86% (n=12); soft values (e.g. patient care, ethics, communication) were chosen by 57% (n=8) of the respondents. Seven (50%) selected general radiography technique and theory, as well as radiation hygiene and protection; three (21%) specified that they would be motivated in other subjects that included how to put up a drip and inject patients, all imaging modalities and new trends in the imaging profession.

• Incentive

Incentives to participation in CPD were accumulation of CEUs, availability of funding, and obtaining new knowledge.

CEUs

Thirteen (93%) indicated that radiographers' CPD should be compulsory, so that each radiographer registers a certain number of hours of in-service training per year in the central CPD register. One respondent (7%) disagreed.

Funding

Six (42%) indicated that their employer should fund their CPD; self-funding of CPD activities was supported by

Table 1. Demonstrates hierarchy of CPD activities

LEVEL OF RANKING	DESCRIPTION OF ACTIVITY
Level 1	Activities that do not have a clearly measurable outcome and are presented on a once-off, non-continuous basis (e.g. breakfast meetings or case studies).
Level 2	Activities that have an outcome, but do not constitute a full year of earned CEUs, such as peer reviewed publications and small groups (i.e. regularly recurring programme that extends for at least one year with a minimum of six meetings per year).
Level 3	Structured learning activities (i.e. formal programmes that are planned and recorded, with a measurable outcome, such as postgraduate degrees and or additional qualifications).

four respondents (29%). The remaining four (29%) were willing to only pay a small portion of the full cost of their CPD activities.

New knowledge

Twelve (86%) agreed "I believe that I would fall behind if I stopped learning about new developments in my career." Two (14%) disagreed. Furthermore, 28% (n=4) of respondents added that CPD is very important as it builds on and improves the current knowledge of each professional; and is a good way of getting a profession to another level. One respondent (7%) was of the opinion that it benefits both the patient and radiographer in the long run. The respondents further cited that individuals undergoing CPD are more informed and competent in their professions as well as in all work that they do.

• **Scheduling of CPD activities**

Fifty-seven percent (n=8) preferred involvement in CPD activities during working and leisure times; 21% (n=3) chose only working hours. Two respondents (14%) maintained that their leisure time should least possibly be used for CPD activities. Nine (64%) supported CPD activities during leisure time to be three and seven hours per month. Less than three hours was supported by 21% (n=3). One (7%) supported more than seven hours per month.

In terms of joint responsibility of both radiographers and employers for CPD, 71% (n=10) supported this, while 64% (n=9) indicated that it should be the HPCNA's responsibility. However, 21% (n=3) and 14% (n=1) were of the opinion that it should exclusively be the respective responsibility of radiographers and employers.

• **Barriers limiting CPD participation**

Several factors, for example, lack of time, financial constraints, family obligations and engagement in private business, were identified as barriers limiting participation in CPD. Figure 2 shows that of the 14 respondents, 57% (n=8) indicated lack of time as the major barrier to CPD participation. Financial constraints were reported by 36% (n=5) as being a limiting factor in their participating in CPD activities. Family obligations and engagement in private businesses each accounted for

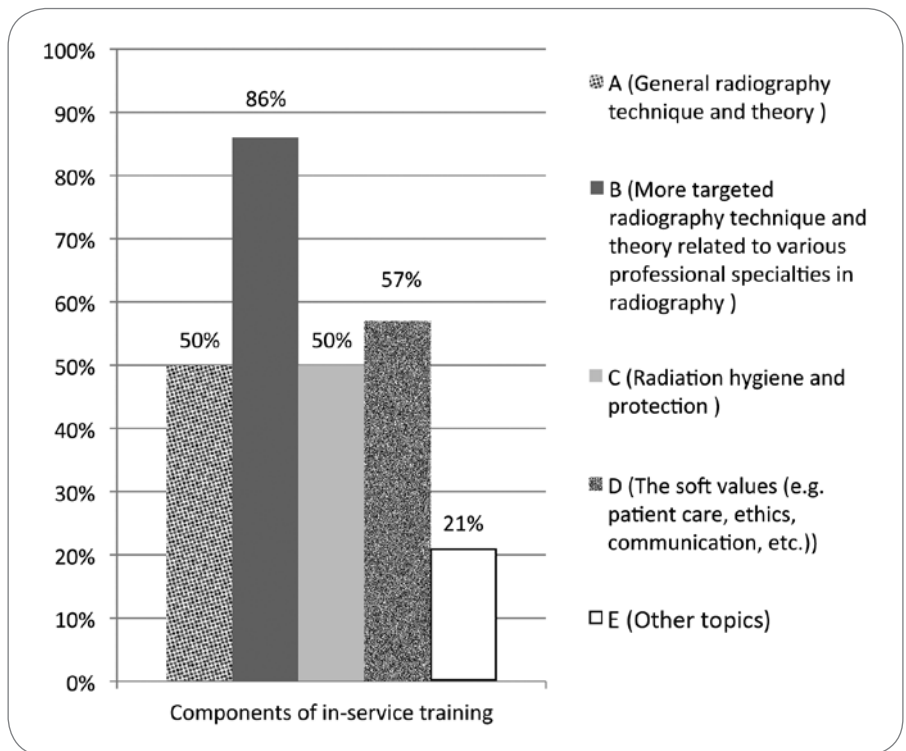


Figure 1. Components of in-service training

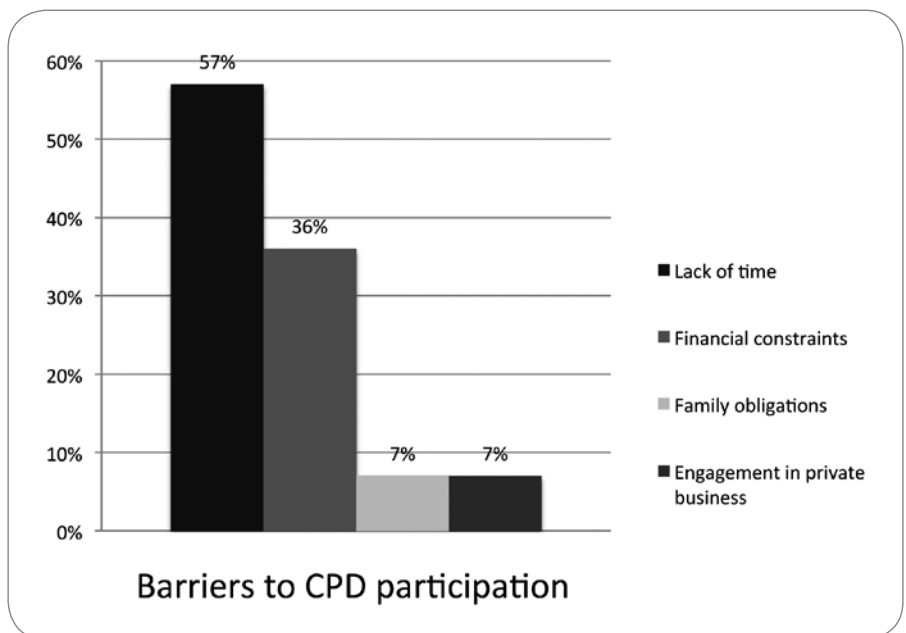


Figure 2. Demonstrates barriers limiting participation in CPD activities

7% (n=1) of factors that limit participation in CPD.

• **Support from management**

The respondents indicated that they lacked support from management in terms of poor provision of radiography training courses, pressure at work, motivation from employers to take part in CPD activities, lack of understanding of the radiographers' needs and employer's interest, as shown in Figure 3.

Seventy-nine percent (n=11) disagreed that their department's management motivates them in their CPD; 21% (n=3) stated that their department's management motivates them in their CPD. Sixty-four percent (n=9) agreed that their management provides them with necessary time for their CPD activities, 36% (n=5) disagreed. Additionally, 93% (n=13) of respondents disagreed that there are clear guidelines and structures in their depart-

ments to support CPD activities. One (7%) held a contrary opinion.

Seventy-nine percent (n=11) were not satisfied with the availability of radiography professional in-service trainings programmes in their radiology department; 21% (n=3) were satisfied; 36% (n=5) reported that they are financially demotivated; 36% (n=5) were influenced by pressure at work (bad conscience for colleagues in production when participation in CPD activities is during working hours). One (7%) was demotivated due to lack of understanding of the employer in terms of the respondent's personal needs and interests.

• Opinions towards mandatory CPD

Ninety-three percent (n=13) were of the opinion that radiographers' CPD should be compulsory; one (7%) disagreed. Of the 13 who supported mandatory CPD, 57% (n=8) were not in favour of their authorisation being denied if they did not meet compulsory CPD requirements; 29% (n=5) favoured revocation of their authorisation if CPD requirements are not met. In terms of the number of compulsory CPD hours per year, 57% (n=8) were of the opinion that between 20 and 37 hours would be appropriate; 14% (n=2) decided > 37 hours, and 14% (n=2) indicated < 20 hours.

Multiple options could be selected for the question as to who should be responsible for radiographers' CPD. Seventy-one percent (n=10) replied that both radiographers and employers should be responsible; 64% (n=9) indicated that the HPCNA should be responsible. Twenty-one percent (n=3) indicated that radiographers should be responsible for their own CPD; 14% (n=2) answered that it should exclusively be the responsibility of the employer.

Discussion

There was a 100% response rate, compared with 64-75%^[7,9] and 51-56%^[5,10-12] in other studies. The high response rate may be attributed to the non-threatening nature of the research, as well as accessibility and proximity of the respondents.

A stage of clinical competence (SOCC) model is used in clinical professions to place practitioners on a level of competence based on their years of experience.^[3]

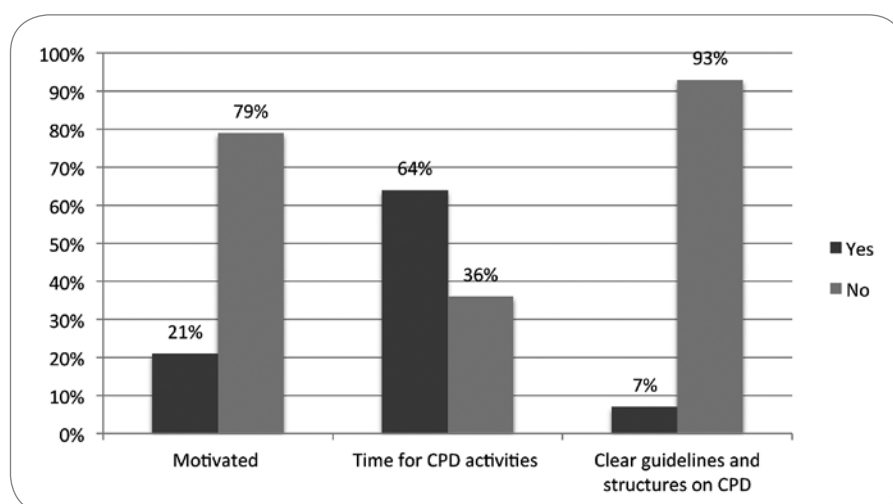


Figure 3. Depicts support radiographers are given by their management

It is thought that experience affects the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and the community being served.^[3] The respondents in this study had varying levels of experience; they could therefore be placed differently on the SOCC. They maintained that the competency model is a good strategy to stimulate participation in CPD if the topics are aligned with their SOCC. This result is similar to a study by Castle et al^[11] that showed that radiographers, involved in CPD activities, associated with changing roles and developing new competencies. In the absence of such a model, and non-supplementation of salaries in Namibia, diagnostic radiographers may be demotivated to participate in CPD activities.

In this study the respondents indicated factors such as lack of motivation by management, lack of time, financial constraints, family obligations and engagement in private business, as barriers limiting participation in CPD activities. Lack of time and financial constraints were ranked highly as barriers, whereas lack of time and workload were reported in a previous study.^[13] In New Zealand and the UK, radiographers complained that "with the pressure of work and due to staff shortages, CPD is difficult to maintain and it is difficult to get time off for CPD".^[5] The respondents, in this study, attend to a high patient load. If one radiographer is not available in the clinical area this significantly increases the workload on the rest due to staff shortages. Some respondents expressed feelings of guilt in such situa-

tions that they would forego participating in CPD activities.

Financial constraints play a role in limiting CPD participation.^[11] The majority of respondents suggested that an employer should fund CPD activities whereas some were of the opinion that the cost should be shared. Registering the hospitals with the professional body as CPD providers, organising departmental CPD activities, and negotiating reduced rates with CPD organisers, could alleviate the financial burden on diagnostic radiographers. Similar to this study, Gawugah et al^[12] found that lack of motivation hindered Ghanaian radiographers from participating in CPD activities.

As mandatory CPD is a norm in UK, New Zealand, South Africa, and Australia,^[5-7] the majority of the respondents agreed that CPD should be mandatory in Namibia. This response is comparable to that observed in two studies, where 99%^[9] and 93%^[11] of respondents agreed to mandatory CPD. Of note is that this study's findings are higher than other studies.^[5,7,14] In this study, CPD was deemed important, as it is associated with improved practice, better patient care and increased confidence. These findings are similar to those in the literature.^[7,10] The need to keep abreast with current practices and knowledge motivates radiographers to participate in CPD activities.^[7] The findings of this study concur with this motivating factor.

The findings of this study underscore the need for CPD activities to be conducted through in-service training, and are similar to the recommendations made by Munro^[15] based on the findings of evaluating the CPD framework of nurses in the UK.

Limitations of the study

This research was limited to diagnostic radiographers employed at state hospitals in Windhoek. The study did not include the radiography community and other category of registered radiographers. The sample size was small therefore the results cannot be generalised to all radiographers.

Conclusion

This study has provided an insight into diagnostic radiographers' opinions of CPD in Namibia. Even though the respondents acknowledged the importance of CPD

activities, the implementation of mandatory CPD regulation by the HPCNA has not yielded a significant impact on the attitudes of Namibian radiographers towards CPD activities. Factors such as lack of time, financial constraints and personal obligations were identified as barriers. There is a need to cultivate a culture of continuous learning through provision of effective and appropriate CPD activities, which would promote improvement of prior knowledge. This in turn is likely to boost radiographers' confidence and improve health care.

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Contributions of each author

Guarantor of integrity of entire study – CN. Study concepts and design – CU. Literature research – CU, ED, CD, CN. Statistical analysis – CU, ED, CD, CN. Manuscript preparation – LK, MA, ED, CD, CN. Manuscript editing – LK, MA, ED, CD, CN.

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