The health workers' uptake of continuing professional education in selected Provincial Hospitals in Zimbabwe.

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ABBREVIATIONS

BMREC- Biomedical Research Ethics Committee

CE- Continuing Education

CPE- Continuing Professional Education

CPD- Continuing Professional Development

CME- Continuing Medical Education

MD- Manpower Development

MDL- Manpower Development Leave

MRCZ - Medical Research Council in Zimbabwe

UWC- University of the Western Cape

WHO- World Health Organization

DEFINITIONS OF KEY TERMS

Continuing professional education uptake: The extent to which health workers undergo further training after their initial training

Health workers: Doctors, nurses and paramedics in the study

Specialist: One who is trained to work on a particular area at work

Procedure: A process followed adhering to the regulations

Perceptions: How people view a certain ideology

Modes of study: Any method of study

Duration of studying: time taken to complete the study

Type of leave: Suitable leave one can take depending with one's schedule

Advance /recognition: A way of appreciation shown by an employer to an employee

Training: Undergoing further education

DECLARATION AND STATEMENTS

I Julian Chazovachii declare that "THE HEALTH WORKERS' UPTAKE OF CONTINUING PROFESSIONAL EDUCATION IN SELECTED PROVINCIAL HOSPITALS IN ZIMBABWE" is my own work and that it has not been submitted for any degree or examination in any other university and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Signature _____J.Chazovachii _____ Date_____10/09/19_____

DEDICATION

This piece of work is dedicated to my wonderful and supportive family; the Chazovachii and Chikerema family.

ACKNOWLEDGEMENTS

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ABSTRACT

Background

Health institutions in Zimbabwe often cannot fulfill their health care mandate due to lack of specialist health workers in different fields. Despite the effort by the Ministry in providing CPE opportunities, there is poor uptake of CPE by health workers in various provincial hospitals in Zimbabwe. This has resulted in severe staff shortages, particularly doctors (and more specifically specialists), as well as nurses and allied health workers.

Aim

The purpose of this study was to assess the knowledge, attitudes and practice and to determine challenges faced by these health workers undertaking CPE programmes.

Methods

A survey design was employed. The study population was made up of staff in the four provincial hospitals for whom there is a particularly great shortage of specialists, and who had been in the public service for at least five years (and thus could have been expected to specialize through the MDL program) and these are doctors, nurses and allied health workers. From these, a random sample of 174 health workers was selected, consisting of 9 doctors, 158 nurses and 7 allied health workers. Data were collected using self-administered closed-ended questionnaires. Data collected were analysed using descriptive statistics to describe the results from Stata 3, a statistical package.

Conclusion

The study found that health workers' knowledge of, as well as motivation to participate in CPE, was high. However, substantial numbers had never participated in CPE. Key challenges identified included inaccess to funding and lack of employer recognition. A number of recommendations for improvements are made.

CHAPTER 1: INTORDUCTION

1.1 Introduction

Continuing Professional Education (CPE) is one important vehicle to ensure that workers learn throughout their professional life cycle. The World Health Report (2006:82) states that "health workers require up-to-date knowledge to perform well and that rapid increase in knowledge and changing health systems make this need even more essential today".

Flores and Alonso (2006) define CPE for health as a collection of educational activities intended to augment and fortify the knowledge and skills base of health workers in order to improve health care delivery systems, ultimately improving the quality of health of patients. Aiga (2006) argues that participation in CPE programs has proved to be directly related to better execution of health care practices among health professionals. This is because proper CPE programs have been associated with higher productivity level, less occupational errors, a better organizational culture, increased job satisfaction and high-quality patient care (Flores & Alonso, 2006).

However, despite the fact that CPE programs are linked to increased competency of health workers, there are numerous barriers that make the uptake of CPE programs challenging (Hegge, Powers, Hendrickx & Vinson, 2002). This is even more noticeable in rural and remote settings where CPE may not be easily accessible (Beatty, 2001).

Like many low-income countries, Zimbabwe faces severe human resource challenges, which include scarcity of health worker cadres due to low remunerations, poor service conditions, limited opportunities for professional updating, as well as brain drain of health professionals to more affluent countries as they search for greener pastures (WHO, 2006). There are inadequate or no specialists in some of the allied health worker and doctors' categories. Amongst nurses, the majority are midwives and community nurses, while other nursing categories, such as anesthetic nursing, intensive care and coronary nursing, mental health nursing, nursing administration, nursing education, operating theatre nursing, ophthalmology, renal nursing and trauma nursing are in extremely short supply in terms of staff.

This has resulted in poor service delivery in areas where the nurses' expertise was required. For example, provincial hospitals, which will be the focus of this study, are affected by the challenges of having to refer patients to the central hospitals for specialist interventions. This often delays treatment of patients, as central hospitals will be overwhelmed with high workloads from patients coming from all over the country. Often this leads to further

complications and deaths of patients on their way to seek treatment at major referral centers. One way to ameliorate this challenge is to strengthen capacity of existing health worker cadres through CPE activities.

CPE in Zimbabwe is guided by the Statutory Instrument 117 of 2006 of the Health Service Regulations (HSR), section 40 (1) (d) which states that, ‘‘Manpower Development Leave (MDL) (MD)[1] means leave granted to a member to engage in study or training through the medium of professional training for the purposes of enhancing the efficiency, effectiveness and motivation of such member’’. The policy affords the opportunity to take such leave to all health professionals, with the aim to address the inadequate supply of specialized health workers in areas such as anesthetic nursing, gynecology and physiotherapy.

1.2 Problem statement

Health institutions in Zimbabwe often cannot fulfill their health care mandate due to lack of specialists. Despite the existence of CPE (MDL) opportunities, health institutions struggle to find staff with specialist training, particularly amongst doctors (and more specifically specialists), as well as nurses and allied health workers[2]. The reasons for the poor uptake of CPE are not known, hence this study.

1.3 Justification

It is against the background of shortage of health care specialists that this study seeks to assess to what extent CPE is taken up among the identified cadres in the four hospitals. The study also seeks to examine health workers experiences with, and attitudes towards CPE, as well as reasons for lack of uptake. This may result in hospital management addressing some of the barriers and, hopefully, improve uptake.

[1] In Zimbabwe the term ‘Manpower Development’ is used in place of Continuing Education, Continuing Professional Education, Continuing Professional Development and Continuing Medical Education, applied depending on local and professional context. These terms are used interchangeably.

[2] In Zimbabwe the term ‘allied health workers’ is used to denote the broad range of health professionals who are not doctors, dentist or nurses but aim to prevent diagnose and treat a range of conditions and illnesses and often work with a multidisciplinary health team to provide the best patient outcomes.

1.4 Study setting

In this study I will assess the CPE uptake situation in four provincial hospitals in the south of the country, including the hospital where I am employed as an HR officer.

The four provinces which will be the focus of this study are Masvingo (Masvingo Provincial Hospital), Manicaland (Mutare Provincial Hospital), Matabeleland South (Gwanda Provincial Hospital), and Midlands (Gweru Provincial Hospital). Masvingo is situated in the south-eastern side of the country, Mutare in the northeastern part of the country, Gwanda in the Southern side of the country and Gweru in the middle of the country. All four are referral hospitals, each having approximately 310 health professionals and a patient load of 2500 patients per month. They all have training institutions for midwives and Manicaland also trains specialist doctors at Mutare Provincial Hospital. Figure 1.1 is the map of Zimbabwe showing the four provinces with the hospitals under study.

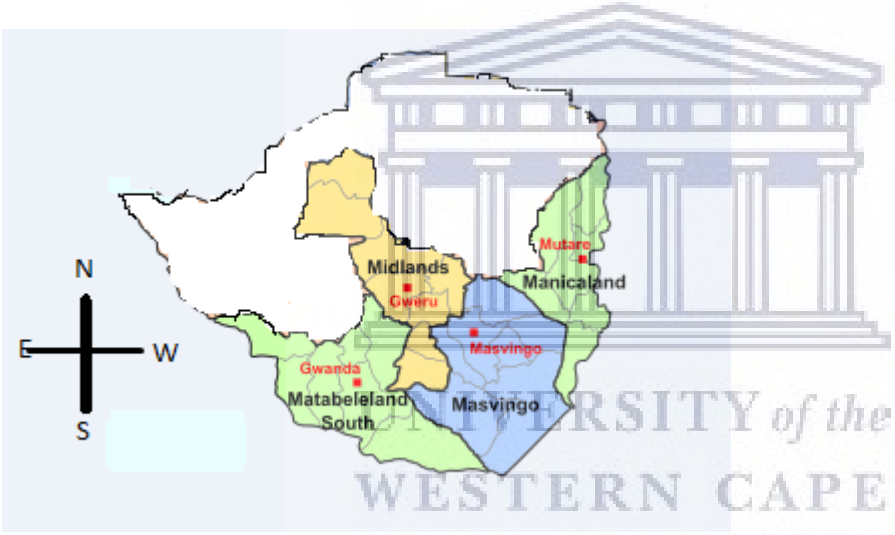

Figure 1.1: Four provinces with the hospitals under study

According to the Human Resources Information System (HRIS), a personnel database, the vacant posts for different categories within these four provincial hospitals are 41 out of 80 for doctors, 311 out of 1512 for nurses and 38 out of 62 for the allied health workers. The data from the August 2018 MDL reports at the national level shows that there has been low uptake of CPE for doctors, nurses and allied health workers, with 16 doctors, 449 nurses and 8 allied health workers who have gone on MDL from 2012 to 2016. These are 20% of doctors, 33% of nurses and 13% of allied health workers drawn from the four selected provincial hospitals.

1.5 Aim

To assess the extent to which doctors, nurses and allied health workers participate in CPE

programs in four provincial hospitals in Zimbabwe, and to ascertain reasons for non-participation.

1.6 Specific Objectives

- To assess the knowledge of health workers regarding CPE opportunities in four provincial hospitals in Zimbabwe.
- To establish the extent to which health worker cadres participate in CPE activities at these hospitals.
- To examine health workers' attitude towards existing CPE programs.
- To determine challenges faced by these health workers undertaking CPE programs.

1.7 Limitations

The following limitations were noted:

i) The researcher faced some financial constraints, as there was need fora follow-up on the data from the four provinces by making phone calls and even travelling to meet the participants to collect the questionnaires as well as print the questionnaires for distribution to the provinces, which was done via courier service. This was overcome by getting assistance from Medical Superintendents' secretaries, who collected the remaining questionnaires and sent them via courier services.

ii) Some participants did not fill in all the sections in the questionnaire, thus limiting the expected responses. The researcher labelled these as missing.

iii) The questionnaire had multiple response questions, where one had to tick more than one answer. This was explained to the respondents so that they understand before filling in the questionnaire.

iv) The study was undertaken during the period in which Zimbabwe had just undergone an election process and some health workers did not take part in the research as they were tied up with election duties. Also, some respondents were not comfortable to write their names in the consent forms. Therefore the researcher encouraged the participants to fill in their pseudo names and they went on to participate.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter focuses on the review of global, regional and local literature related to the uptake of CPE by health workers in designated categories. It focusses on the concept of CPE, the importance of CPE, access to CPE by health workers, knowledge of CPE by health workers, CPE as a licensing requirement, continuing professional development formats, participation and attitude of health workers towards CPE, challenges faced by health workers in CPE, and improving health workers' access and uptake of CPE.

2.2. Concept of Continuing Professional Education (CPE)

Continuing Professional Education (CPE) refers to "educational activities intended to expand the knowledge and skills of health workers and to strengthen practice, education, administration, research, and theoretical development, with a view to improving the health of patients" (Aiga & Kuroiwa, 2006:270; Furze & Pearcey, 1999; Fentahun & Molla, 2012). Furze et al, (2012) observe that CPE is required to keep health worker cadres abreast of changes in their roles and functions, to help them to acquire new knowledge and skills, and to modify their attitudes and understanding. Langenback (1988), in Badu-Nyako (2015:86), revealed that CPE is "intended to help individual professional practice and knowledge resources that can enrich practice". Peck, McCall, McLaren and Rotem (2000) used the term Continuing Professional Development (CPD) and defined it as the process by which health workers keep updated to meet the needs of patients, the health service, and their own professional development. Hence, CPE serves as an important means of improving the medical doctors' and other health workers' (nurses and allied health workers) competence.

CPE can take many different forms. It can encompass formal and informal learning activities, short courses and post-graduate programmes (Ng, 2017; Aiga and Kuroiwa, 2006). Compared to pre-service training, CPE usually provides updated or new knowledge and skills in specialized areas. In support of Aiga & Kuroiwa's (2006) understanding of CPE, Ng (2017) presented CPE as a continuous process, requiring support for and commitment from staff, as presented in Figure 2.1 below (Ng, 2017). He argued that knowledge by health cadres is as a result of skills development, support by state or non-state actors in the health system,

commitment by cadres themselves, best practices derived from the specialized training received, and quality care they offer through practice after training. Thus, CPE is directly (though not exclusively) linked to quality of care.

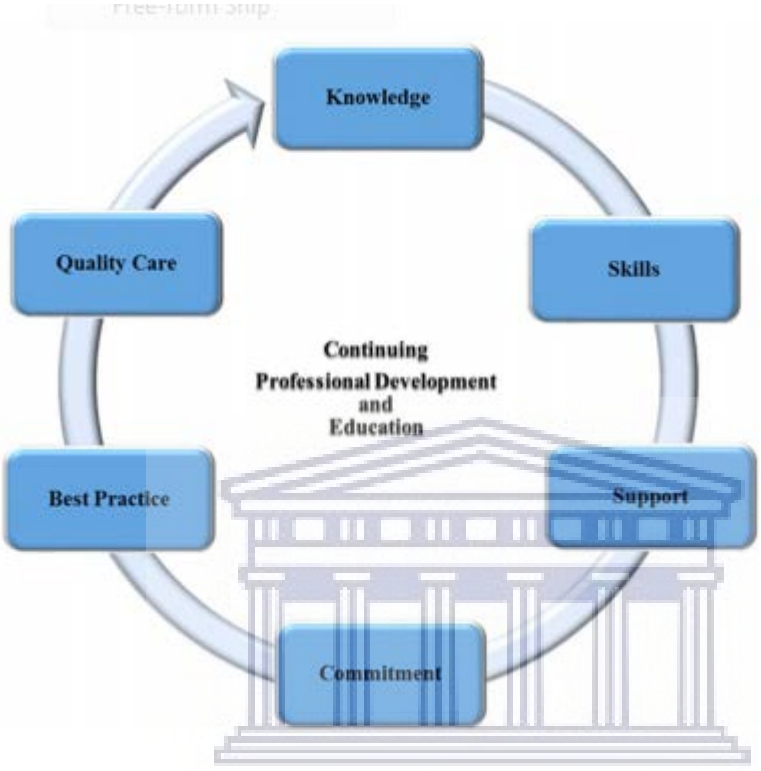

Figure 2.1: CPD and Education Process Model (Ng 2017:14)

The World Health Organization, in their 2013 guidelines on *Transforming and Scaling Up Health Professional Education and Training,* also emphasized that "the exponential progress in technology, diagnostic tools and treatment methods, as well as changing population demographics and disease burden, makes updating and maintaining the knowledge and skills of health workers throughout their professional life more important than ever" (WHO, 2013: 48). They also stressed, however, that effectiveness depends on numerous issues, including purpose, appropriate target audience and techniques used, and that it is increased when linked to career development.

2.3. The importance of CPE

One of the important reasons why any HCW would go for CPE is the hope that their skills are

enhanced, the hope that such skills would translate to better quality of care for patients and good organizational performance. This can be better explained with the use of a theory. Weiner's theory of organizational readiness to change will be relevant to the study as it hypothesizes that organizational readiness to change comprises two collective, affective states: change commitment and change efficacy. Change commitment refers to an intention to implement a change that is shared across members of an organization. In this case, all HCWs have shared ideology of undertaking CPE. Whereas, change efficacy is defined as organizational members' shared beliefs in their joint ability to engage in those courses of action necessary to implement a change. Thus, HCW would go for CPE with the belief that their skills are enhanced, the hope that such skills would translate to better quality of care for patients and good organizational performance. This leads to change-related effort, which is referred to as wellness-program effort. It is the collective effort of organizational members to execute a change, and is a function of both change commitment and change efficacy. While beyond the scope of the current analysis, wellness-program effort is expected to predict the actual extent of implementation of workplace wellness programs.

Change commitment and change efficacy are functions of change valence and informational assessment, where change valence is the extent to which members of an organization value the change. Reasons for why the change is valued can vary, and this construct does not assume that all members value it for the same reason, only that there exists a collective belief that the change is significant to the goals of the organization. Thus, the study had various responses on how employees view CPE. More so, informational assessment refers to organizational members' perceptions that the resources available to implement the change (human, financial, material, and informational) are sufficient to the demand.

Change valence and informational assessment are influenced in turn by context, which refers to the broader conditions that affect readiness to change, such as organizational culture, climate, resources, structure, and past experiences with implementing change. Relative to the other constructs in the model, context is not innovation-specific and should be more stable over time. This model is illustrated by Figure 2.2 below.

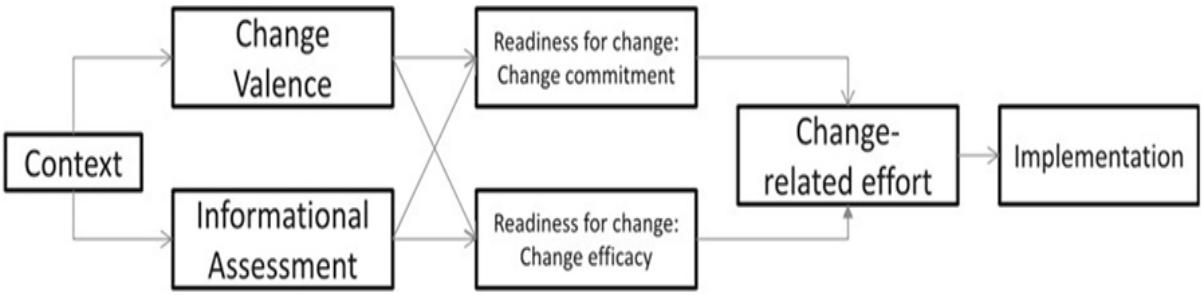

Figure 2.2: Weiner's theory of organizational readiness to change (Weiner 2009:67)

2.4. Access to Continuing Professional Education among the Health Workers

Access to CPE is multi-dimensional and not easy to measure. For this reason, Aiga (2006) constructed an index of access to CPE (*Continuing Professional Education Access Index: CEAI*) to be able to more systematically assess the levels of access to continuing professional education (CPE) among the health workers. The CEAI is composed of the availability of CPE, distribution of CPE, informational access, geographical access, economic access, and preparedness to release staff.

Aiga argues that availability of CPE is a first essential precondition for access to CPE, meaning the CPE opportunities actually being on offer. He observes that because budgets for CPE tend to be unstable (i.e. first to be cut when budgets are under strain), CPE programs tend to be vulnerable. Studies in Japan and in South Africa reported insufficient CPE opportunities due to lack of available programs (Aiga, 2006; Panthi and Sharma, 2018:17).

Distribution of information is another aspect of access. Unless information concerning scheduled CPE programs is delivered to health institutions or health workers in appropriate timing, they are physically unable to be aware of the programs and to apply for them. In developed countries, physicians and dentists are easily reached with updated mailing lists by CPE providers, compared with other occupational groups (Adelson, Watkin & Caplan, 1985; Aiga, 2006). On the other hand, nurses in the United States considered the lack of information concerning programs to be a deterring factor in accessing and gaining CPE (Glass and Todd-Atkinson, 1999; Aiga, 2006). This is a common phenomenon in most developing nations. To transmit the message to the appropriate target groups, CPE providers need to use a series of well-defined marketing strategies to promote and communicate the value of the program being planned (Adelson et al., 1985; Aiga, 2006), an issue which could be a challenge in developing regions. Unequal distribution of information, e.g. between urban and rural areas, thus, leads to inequitable access. This was reported in studies in Eritrea and Ghana (Aiga, 2006).

The nearer the location of a CPE program is, the fewer difficulties in participating in it health workers have. Geographical access to CPE is an important factor that impacts cost in both time and money on traveling to the venue (Boissoneau, 1980; Adelson et al., 1985). For this reason, location of duty station was one of the determinants of CPE opportunities in studies in Eritrea (Ahmed and Hagos, 1993) and in the United States (Bowan and O'Donnell, 1985; Glass and Todd-Atkinson, 1999). Longer distance to venues of CPE programs reduces geographical access (Aiga, 2006).

Those who will pay for or share costs for participation in a CPE program importantly regulates access to CPE among health workers. Even if a program is scheduled in a convenient location and time, it would not be accessible if the tuition is either extremely high or totally non-reimbursable. A study in the USA, for example, reported that tuition cost was the most deterring factor and tuition reimbursement was the fourth most facilitating factor in CPE (Glass & Todd-Atkinson, 1999; Aiga, 2006). In Japan, a study targeting public health nurses reported that the tuition cost for CPE programs attended by 57.8% of participants in the past five years was sponsored by their employers (Ohno, 1997). These models and challenges are applicable to developing countries to an equal or greater degree.

The ways of sharing tuition cost vary from full reimbursement and partial reimbursement (primarily by employers) to full payment by participants (Schoen & Morgan, 1993). Another practice that has emerged in developing countries is that participants are sometimes paid per diem and accommodation costs, either by their governments or funding agencies. According to Berg, (1993) when being funded by development agencies, the cost at times becomes extraordinarily high. In Mozambique, one development agency paid the equivalent of 18 months' salary to health professionals participating in a three-week provincial workshop. In Togo, four development agencies gave the participants in a CPE program payment for subsistence support (Bryce, Cutts, Naimoli & Beesley, 1993). In those countries, there is an emerging risk that CPE is considered to be a tool for extra income opportunity (Aiga and Banta, 2003).

The extent to which employers release their staff for the purpose of letting them participate in CPE is an essential component that determines the level of access to CPE (Aiga, 2006). Employer willingness (or unwillingness) to release staff very obviously facilitates or hinders access. A study in Ghana indicated that occupational groups at times determine the extent of access (Aiga & Kuroiwa, 2006). Some programs specify the types(s) of occupational groups as target trainees, though the World Health Organization recommends training of cadres from

different occupational groups in a team as advantageous rather than from separate professional categories (Aiga & Kuroiwa, 2006). Employers' intention in releasing staff for training was to allow those who had received the training to disseminate information within hospitals and clinics through in-house, systematic, on-the-job training in facilities with a large number of staff.

2.5. Continuing professional development models

There are numerous different models – both formal and informal - for providing CPE. The educational format used should be the most effective and efficient method for meeting the learning objectives and target audience (UHPC, 2008). Approaches such as on-the job training and blended learning can be used to minimize the amount of time health workers must spend away from their jobs (Schaefer 2005; Ng, 2017). However, informal opportunities can be heavily influenced by location and working conditions. For example, a health worker in a remote, rural clinic with no other professional colleagues nearby will not have the same opportunities for spontaneous professional dialogue as a peer working in an urban or peri urban environment (Ndege 2006; Poudel, Panthi & Sharma, 2018:17). Distance learning opportunities and information technology can be used to address the limited professional development experienced by health workers in remote locations (Ndege 2006; Ng, 2017), provided the necessary infrastructure is in place. A number of programs have shown the power of information and communication technologies for linking health workers in remote areas to their peers in order to enhance both clinical practice and opportunities for learning (McNamara 2007; Poudel, Panthi & Sharma, 2018:17).

Furthermore, follow-up of trainees after the CPD intervention is an important step in the process, one used to determine if the intervention was effective and to learn what changes might improve it in the future (Giri. Frankel, Tulenko, Puckett, Bailey & Ross, 2012; Ng, 2017).

2.6. CPE as a Licensing Requirement

CPE has been made a requirement for continued licensing of clinicians in some countries. This is one mechanism to ensure the uptake of CPE, but internationally, practices in this regard vary substantially, across and between developed and developing countries. To mention a few examples reflected in the literature: Singapore has required CME for physicians to maintain their licenses since 2005 (van der Velden, Ton, Nguyen, Nguyen, Ngo & Baron, 2010). Japan

has no mandatory system, but the Japan Medical Association conducts a voluntary certifying program. Approximately 70% of its membership is certified (Pelletier, 2010). The Abu Dhabi Health Authority in the United Arab Emirates requires physicians to attain at least 50 hours of CME per year for license renewal, of which 25 must be in the form of formal education from either an accredited medical school or a professional body (Younies, Berham & Smith, 2010).

Across Africa, countries are at different levels of developing CPD systems and requiring CPD for relicensing. In some countries, such as Uganda and South Africa, regulatory bodies require a specific number of professional development credits or continuing medical education (CME) credits in order to reregister or relicense certain health worker cadres (Ndege 2006; Ng, 2017). In most African countries, however, there are no systematic approaches to regulating CPD programs, and documentation of CPD completion is not required for relicensure (Muula, Misiri, Chimalizeni, Mpando, Phiri, & Nyaka, 2004; Giri et al, 2012; Ng, 2017). In Tanzania, CPD is mandatory and Nurses and Midwives (NMs) were required to provide evidence of CPD attendance when renewing their professional practicing license under the 2010 Tanzania Nursing and Midwifery Act (Ministry of Health and Social Welfare (MoHSW), 2014). However, there is limited information and understanding about the awareness of, and compliance with, this ruling by local NMs in the country, and according to Tanzania's MoHSW (2014), while some health workers have attended CPD training, it is not uncommon to find staff who have not attended CPD.

According to a CPD Pharmacist Survey in Kenya (2013), in some countries it is already mandatory for pharmacy professionals to undertake CPD, and satisfactory participation is a pre-requisite for renewal of annual practice licenses for pharmacists. This survey also states that in Kenya, implementation of CPD programs is still at its infancy and needs to be developed and strengthened to meet the needs of practitioners in all the pharmaceutical sub-sectors.

In South Africa, there is a strategic plan which provides a very detailed and well-articulated strategy and implementation plan that speaks to the broader issues of education, quality, competence, accreditation, defining, and licensing of nursing practice (Abbott, Omollo, Bell, Rana, Hammond, Mutumba, Jiang & Mwenesi, 2016).

2.7. Reasons for Participation in CPE

There are numerous reasons for, and factors that impact on, health workers' willingness to participate in CPE, which have to do with both intrinsic and extrinsic motivation.

According to Claire, Cross & McGuire (2006:371) intrinsic reasons include

> "increased levels of self-confidence; greater levels of collaboration and knowledge sharing; possibilities for networking, leading to career progression; increased likelihood of influencing changes in the health service; greater levels of career satisfaction; increased expectation of promotion; commitment to a process of learning and continuous updating of knowledge and skills; greater level of awareness of personal and professional values; quicker identification of concerns and issues within the profession; greater clarity and understanding of your own role within the organization; and higher levels of professional respect from colleagues".

The self-perceived needs among cadres play a key role in maximizing effectiveness of CPE as they reflect health cadres psychological and motivation towards CPE (Aiga, 2006).

The need for compliance with the employer's and authority's requirements (i.e. extrinsic reasons) as a reason where mandatory CPE participation is required for renewal of professional licenses is also a contributing factor in both developed and developing regions (Younies, Berham & Smith, 2010).

Another extrinsic driver is available information and perceived fairness of recruitment processes, whether selection criteria are transparent and needs oriented (Aiga & Kuroiwa, 2006).

Health workers' reasons and motivation to participate in CPE also color their views on frequency of CPE events. Activities that are considered appropriate, relevant and accessible (or where extrinsic motivators, such as per diem payments are very strong) increase willingness to participate. It has further been suggested that the shift towards evidence-based practice and career development are also influential in shaping positive attitudes towards CPD (Stagnitti, Schoo, Reid & Dunbar, 2005:361). The idea of registration and accreditation of the profession in conjunction with the move towards evidence -based practice, are frequently the driving forces behind the desire to access CPE. In a study of burnout in occupational therapists and physiotherapists, it was realized that CPD activities were strongly associated with feelings of accomplishments and even though the therapists were emotionally exhausted, they did not feel dispersonalised (Stagnitti, et al, 2005: 360).

In Ghana, it was reported that "health cadre expressed their willingness to have CPE three times a year regardless of type of occupational group, rank and duty station. They are willing to have more CPE opportunities as they believed it could improve the quality of services they are

providing" (Aiga, 2006).

2.8. Challenges Facing Health Workers Participating in Continuing Professional Development

In many countries, and particularly in Africa, the motivators encouraging participation in CPD are undermined by a wide range of challenges. Lack of funding and information, staff shortages and heavy workloads, lack of support from employers and family commitments are listed among the most frequent challenges, as well as missing or unclear policies and guidelines (Mosol, Kei, Obwoge & Ng'eno, 2017; Leroyer, 2017; Claire et al, 2006; Fentahun & Molla, 2012).

Aiga's study in Ghana found that one of the factors which made health cadres hesitant to participate is "the concern about creating difficulties in the function of duty stations when they are absent and become inconveniences to colleagues and local inhabitants in the area of their jurisdiction when participating in CPE programs" (Aiga et al, 2006:274).

In a study covering Tanzania, Malawi and South Africa, there was a general sentiment that CPD was developed, organized, and delivered centrally without a lot of input from provincial and district levels or Health Care Workers (HCWs), themselves. Several respondents across countries noted that the one-size-fits-all CPD does not work and that CPD needs to be more cadre specific so that people are learning the right content at an appropriate learning level. Other participants felt that CPD training and topics were "donor-driven," guided by implementing partners, and were not necessarily responsive to local priorities or cultural contexts.

Some HCWs in the same study noted that their motivation is diminished by the way in which HCWs are selected for CPD: the same HCWs are sent repeatedly, training does not match the attendee's job, or participant selection criteria does not meet the CPD provider's expectations (Leroyer, 2017).

Limited financial resources at training facilities can be another factor limiting enrollment and adequately recruiting and retaining health professors and tutors (Osika, Altman, Ekbladh, Katz, Nguyen, Rosenfield, Williamson & Tapera, 2010). Moreover, in some cases, budgetary cuts have forced training facilities, such as the University of Zimbabwe's College of Health and Sciences, to temporarily shut down (Todd, Ray, Madzimbamuto & Sanders, 2009), thus reducing access to and opportunities to participate in CPE programs.

Davis & Parboosingh (1993:5) noted additional barriers, such as

> "improperly defined commercial sponsorships, noncompliance with best practices to design, develop, implement, and evaluate CPD educational interventions, biased education and conflicts of interest with sponsors, lack of clear definition of responsible parties and their specific roles in CPD, effective assessment of CPD activities to gauge cost-effectiveness, coordination of all stakeholders and demonstration of the doctor's and other health workers' CPD to society".

2.9. Improving Health Workers' Access to, and Uptake of, CPE

International literature proposes various interventions to improve access and uptake of CPE, such as ensuring that CPE is brought closer to work places to avoid travel time and long times off duty (Curran, Fleet & Kirby, 2006). In a study of Tanzania, Malawi and South Africa by the three researchers, respondents noted that CPD regulatory bodies "see themselves as different vertical programs," suggesting examination of ways to reduce redundancy and improve efficiency. NGOs and other partners also develop, implement, and monitor CPD activities, causing some complications with coordination, quality assurance, and regulation (Leroyer, 2017).

One increasingly available way of bringing CPD closer to target audiences is e-learning (Feldacker, Pintye, Jacob, Chung, Middleton, Iliffe & Kim, 2017). This improves access to CPE, as the travelling time is reduced. Curran, et al (2006:52) state that, "technology-based delivery methods, or tele-education, were frequently identified as best practice strategies for improving access to or delivery of CPE". The introduction of tele-health programming and the provision of CPE grants or subsidies were also described as 'best practice' strategies for the facilitation of the development and implementation of CPE for everyone to access it. Thus, the technology-based delivery methods and the provision of CPE grants or subsidies counter the geographical, financial and organisational factors as key barriers to providing CPE to all health workers, as these methods of study are flexible, without any interference with anyone. These will reduce professional isolation as well as retain employees, as they will be having a sense of belonging in the organization. Therefore, with these strategies put in place, there is bound to be higher uptake of CPE, as the hindrances are reduced. However, issues such as cost, e-learning literacies, connectivity and the lack of direct engagement with teachers and peers remain substantial challenges with this mode of delivery.

2.10. Chapter Summary

This chapter explored global, regional and national issues regarding the uptake of CPE by health workers in difference categories and contexts. The conceptualization of CPE as a cyclical process was discussed. Scholars argued that knowledge by health cadres is a result of skills development, support by state or non-state actors in the health system, commitment by cadres themselves, best practices derived from the specialist training received and quality care they offer through practice after training. To measure the levels of access to continuing professional education (CPE) among the health workers, an index (continuing professional education access index: CEAI) was constructed, which was used to structure this chapter. The CEAI is composed of the availability of CPE, distribution of CPE, informational access, geographical access, economic access, and preparedness to release staff. CPE as a licensing requirement, continuing professional development format, participation and attitude of health workers in CPE, challenges by health workers CPE and improving health workers' access and uptake of CPE, were explored. Despite all these scholarly deliberations, little has been explored on health workers' uptake of continuing professional education or development in Zimbabwean selected hospitals, hence this study.

CHAPTER 3: METHODOLOGY

This chapter focuses on methods used to undertake this study. These include study design, study population and sampling, data collection and data analysis. Validity reliability and ethical considerations are also explained. A summary of the chapter is then given at the end.

3.1 Study Design

The study used a descriptive cross-sectional survey design. The survey is a useful design to describe the attitudes and orientation of health worker cadres to their own CPE. The major advantage of using a survey is that data can be collected from the participants in their own setting, for example in their workplace. Thus, the researcher traveled to various provincial hospitals and sought audience with the doctors, nurses and allied health workers in wards, offices and rehabilitation centers through their supervisors. In addition, the survey provides data about the present and can be used to suggest future change (Treece and Treece, 1986).

The survey was done to enable the researcher to describe the situation cross-sectionally. Drawing on similar questionnaires found in the literature (in particular Schostak, Davis, Hanson, Schostak, Brown, Driscoll, Starke & Jenkins, 2010, and MoH Kenya, 2013) a 22-item questionnaire was developed to ascertain participants' knowledge of CPD opportunities, their attitudes towards CPD (including reasons for attendance and non-attendance), the extent to which participants have participated in CPD, issues that assist with, and challenges in, CPD attendance, and suggestions for improvements. The study was undertaken between mid-February and March 2019. A survey was used for data collection as it was considered to be an appropriate instrument for this study. It was cost effective with regards to the amount of money and time, and the data to be collected. This is because the researcher moved around on her own, after having made arrangements with hospital managements for a date and time when the researcher could distribute the questionnaires to the health workers. In some cases the researcher waited for the questionnaires to be filled in, especially with doctors, for fear of losing them. In others, participants would fill them during breaks and some carried them home and they would be collected the following day.

The questionnaire was anonymous, i.e. did not contain any names or personal identifiers. It seemed to be simple to understand and no one asked for elaboration. The relevant people responded to the questionnaires, ranging from those with 5 years to more than 20 years in

service.

The questionnaire had varied questions and options available, including binary variables and those with multiple possible response options. A significant limitation of the self-completed nature of the questionnaire was that not all participants answered all questions, which led to some missing information.

3.2 Study Population and Sampling

The study population was made up of staff in the four provincial hospitals at which there is a particularly great shortage of specialists, and who had been in the public service for at least five years (and thus could have been expected to specialize through the MDL program). These are doctors, nurses and allied health workers.

A random sample was arrived at by selecting every third person on the list to allow for generalizability and a representative sample (Singh, 2006). The total population in all Provincial hospitals was 1502, which was made up of 79 doctors, 1359 nurses and 64 allied health workers. Allied health workers have sub-groups which comprise the laboratory, radiography, rehabilitation and pharmacy staff. These included all health workers in the selected categories, regardless of their length in service. Thus, eligible health workers to take part in the research were identified.

The sample was made up of 174 health workers drawn from four provincial hospitals. The sample size was calculated using the sample size calculator using the population of 1502, 95% confidence interval and a margin of error of 7%. Thus, a sample of 9 doctors, 158 nurses and 7 allied health workers was selected within the selected provinces. This was after calculating the proportion of the number of health workers in a certain category, dividing by the total number of health workers and then multiplying by the sample size. For example, for doctors it was 79 divided by 1502, which is the total number of health workers multiplied by 174, which is the sample size.

Inclusion Criteria

- Members who have been in service for at least 5 years.

Exclusion Criteria

- Members who have less than 5 years in service.

3.3 Data Collection

Data were collected through the use of a self-administered closed-ended questionnaire. Drawing on similar questionnaires (in particular Schostak et al, 2010, and MoH Kenya, 2013), a 22-item questionnaire was developed to explore participants' knowledge of CPD opportunities, their attitudes towards CPD (including reasons for attendance and non-attendance), the extent to which participants have participated in CPD, issues that assist with and challenge CPD attendance, and suggestions for improvements. The questionnaire was six pages long and had four sections with 22 questions. The data included only categorical variables with options for the respondent to select. The questionnaire was anonymous, i.e. did not contain any names or personal identifiers (Babbie and Mouton, 2001:265; Neumann, 2000:265).

Arrangements were made with the hospital management for a date and time when the researcher could distribute the questionnaire to the health workers. The questionnaire was handed to the selected respondents and those who declined participation were randomly replaced from the same department or unit at that particular moment. Those who were participating were encouraged to respond to the questionnaire on the same day or on the following day, without any second party assistance or input. Some respondents who were given the questionnaire were followed-up the same day and others the following day, to ensure timely response to the questionnaire and collection of completed questionnaires.

3.4 Data analysis

The data were double entered to ensure no errors and were also thoroughly checked to ensure accuracy and completeness. The data were analyzed using descriptive statistics to describe the results using frequencies. Descriptive statistics provide simple summaries about the sample and the measures. Tables were used to compare the results and frequencies, to observe whether there appear to be any relationships between the demographic characteristics of the population and the outcomes of interest. STATA 3, a statistical package, was used to analyse the data.

3.5 Validity and Reliability

Validity was ensured by having an expert in the field, colleagues and members of the target population involved in questionnaire design in order to ensure the validity of the coverage of questions included in the questionnaire (Kelley, Clark, Brown and Sitzia, 2003). Measurement

bias was reduced through pretesting so as to ensure that the questions are clear and that the instructions and the options provided are clear and comprehensively cover all the issues.

To improve reliability, a test-retest was done to the questionnaire. This was done by administering the same questionnaire twice over two months to a group of respondents who were not part of the research. Participants were given a time frame to fill in the questionnaire. The results were analyzed using the Pearson's Product Moment Correlation Coefficient and the coefficient was 0.9. This indicated a very high correlation, which showed that there is good reliability. Hence the questionnaire was ready for distribution.

3.6 Ethical Considerations

The researcher sought permission to conduct the study from the Biomedical Research Ethics Committee (BMREC) of the University of the Western Cape (UWC) in South Africa. The Ministry of Health and Child Care in Zimbabwe through the Secretary for Health and Child Care was approached for approval to conduct the study and informed the Provincial Medical Directors for Masvingo, Manicaland, Matabeleland South, and Midlands provinces. The response was attached to the Medical Research Council in Zimbabwe (MRCZ) for its approval, together with the ethics approval which was obtained from UWC. Permission to undertake this research in the hospitals, and for the health workers to participate in the research, was obtained from the four hospitals and the health worker cadres.

Information sheets were provided and read to the prospective respondents. All the selected staff who agreed to participate were then asked to sign the consent form. All the participants understood English, hence they read the information sheet on their own and there was no need to interpret using the local languages. The study ensured that all the personal socio-demographic information of all participants involved was kept confidential, and personal information such as names and any identifying information were not collected. All respondents were clearly informed, via the information sheet, that participation was voluntary. All questions and concerns about the study were addressed.

There were minimal anticipated risk to the participants, associated with this study. The respondents were informed of the potential risk they might face in the study, which included the temptation to respond to the questionnaire when they have immediate work at hand to attend to. This risk was minimized by encouraging them to respond only during break time. The other risk that could be associated with the study was the discomfort involved in responding to the

questionnaire. For this, they were informed that the outcome of the study would be disclosed to the Secretary for Health and Child Care for improvement of MDL procedures by the policy makers.

3.7 Summary

This chapter outlined the method employed in this study. This study employed quantitative research methods to collect and analyze the responses on the factors surrounding the uptake of CPE by the health worker cadres from the four provincial hospitals. The next chapter presents the findings of this study.

CHAPTER 4: RESULTS

Chapter 4 shows the results of the data collected from the four selected provincial hospitals in Zimbabwe selected for this study, which are Gwanda, Gweru, Masvingo and Mutare. The chapter presents a descriptive summary of the data: the demographic characteristics of the study participants, knowledge of health workers regarding CPE activities, health worker cadres' participation in CPE activities at the hospitals, health workers' attitude towards existing CPE programs, sponsorship and arrangements for MDL, as well as challenges of implementing CPE activities. For these analyses it is important to note that not all respondents answered all questions and, therefore, some data are missing. Thus, the data was not included in the analysis. Also a number of questions had multiple choices for selections, making analyses more complex.

4.1. Background Characteristics of the Study Participants

The study participants are characterized by the demographic characteristics shown in Table 4.1. Table 4.1 shows that females were the majority (74%) and in terms of profession, nurses account for 83% of the respondents. In addition, 43% of the respondents had been in the service for a period of 5 to 10 years and only 18% had served in the health service profession for at least 20 years.

Table 4.1: Demographic Characteristics of Respondents (n=175)

Demographic characteristics	**n (%)**
Hospital name	
Gwanda Provincial Hospital	35 (20.11)
Gweru Provincial Hospital	45 (25.86)
Masvingo Provincial Hospital	52 (29.89)
Mutare Provincial Hospital	42 (24.14)
Gender	
Female	129 (74.14)
Male	45 (25.86)
Professional cadre	
Doctor	14 (8.05)
Nurse	144(82.76)
Allied health workers (*laboratory, pharmacy,*	

radiography & rehabilitation)	14 (8.05)
Missing	2 (1.15)
Years employed in health service	
5-10 years	74 (42.53)
11-20 years	61 (35.06)
Above 20 years	31 (17.82)
Missing	8 (4.60)

4.2. Knowledge of Health Workers Regarding CPE Activities

Table 4.2 shows the results on the knowledge of health workers regarding CPE activities presented by demographic data. One of the first questions we asked participants was whether they knew about the MDL activities available to health workers.

As can be seen in Table 4.2, the majority of respondents i.e. 97% of women and 96% of men indicated that they did know about MDL. Table 4.2 breaks these figures down by professional category, years of service, and by hospital. While there are small variations within these categories, the responses remain overwhelmingly affirmative. It is noteworthy, however, that 9% of women who were mostly nurses with between 5 and 10 years of service, did not answer this question.

Table 4.2: Knowledge Regarding CPE Activities Presented by Demographic Data (n=164)

	Knowledge of MDL	
Demographic characteristics	**Yes (%)**	**No (%)**
Gender		
Female	115(96.64)	4(3.36)
Male	43(95.56)	2(4.44)
Professional cadre		
Doctor	11(84.62)	2(15.38)
Nurse	133(97.79)	3(2.21)
Allied Health Workers (*laboratory, pharmacy, radiography & rehabilitation*)	13(92.86)	1(7.14)
Missing	1(100)	0(0)

Years employed in health service		
5-10 years	63(92.65)	5(7.53)
11-20 years	61(100)	0(0)
Above 20 years	28(96.55)	1(3.45)
Missing	6(100)	0(0)
Provincial Hospital		
Gwanda	31(91.18)	3(8.82)
Gweru	39(95.12)	2(4.88)
Masvingo	48(100)	0(0)
Mutare	40(97.56)	1(2.44)

4.3. Health Worker Cadres' Participation in CPE Activities

Tables 4.3 and Table 4.4 present the results on the extent to which health worker cadres reported participating in CPE activities. This covers those presently undertaking CPE and those who have previously undertaken CPE.

4.3.1 Health Workers' Present Participation in CPE

Table 4.3 shows that 20% of female and 11% of male health workers who completed the questionnaire are presently participating in CPE activities. Again, these responses are further broken down by professional category, length of service and by hospital. A slightly higher number of allied health workers (25%) are taking part in CPE, compared to 18% of nurses and 14% of doctors. However, given the small sample, these figures do not indicate any kind of trend. The same is true for the break-downs by years of service and across the four hospitals.

Table 4.3: Current Participation in CPE Activities by Demographic Data (n=167)

	Presently undertaking MDL	
Demographic characteristics	**Yes (%)**	**No (%)**
Gender		
Female	25(20.33)	98(79.67)
Male	5(11.36)	39(88.64)
Professional cadre		

Doctor	2(14.29)	12(85.71)
Nurse	25(17.99)	114(82.01)
Allied Health Workers (*laboratory, pharmacy, radiography & rehabilitation*)	3(25)	9(75)
Missing	0(0)	2(100)
Years employed in health service		
5-10 years	16(22.54)	55(77.46)
11-20 years	9(15)	51(85)
Above 20 years	5(17.86)	23(82.14)
Missing	0(0)	8(100)
Provincial Hospital		
Gwanda	2(5.71)	33(94.29)
Gweru	9(20.45)	35(79.55)
Masvingo	19(33.93)	37(66.07)
Mutare	9(28.13)	23(71.88)

4.3.2 Health Workers' Previous Participation in CPE

Table 4.4 shows that looking at the gender, 62% of female health worker cadres who have answered the question have previously participated in CPE activities and 39% have not previously participated in CPE activities. These responses were also broken down by professional category, length of service and by hospital. Looking at the length in service, 27% of respondents who were in service for 11-20 years had never participated in CPE, and almost a third (31%) of participants were in service for over 20 years. Among those who have been in service for 5 to 10 years, results show an almost even split between participants who had and had not previously been involved in CPE programs. Furthermore, of much interest are the results from Gweru Provincial Hospital, with only 37% of health workers who have previously participated in CPE activities, compared to Gwanda Provincial Hospital which had the highest, with 75% of health workers who had previously undertaken MDL, which is two times more than the number for Gweru Provincial Hospital.

Table 4.4: Previous Participation in CPE Activities Presented by Demographic Data (n=162)

	Previously undertaken MDL	
Demographic characteristics	**Yes (%)**	**No (%)**
Gender		
Female	74(61.67)	46(38.33)
Male	25(59.52)	17(40.48)
Professional cadre		
Doctor	7(58.33)	5(41.67)
Nurse	86(63.24)	50(36.76)
Allied Health Workers (*laboratory, pharmacy, radiography & rehabilitation*)	5(41.67)	7(58.33)
Missing	1(50)	1(50)
Years employed in health service		
5-10 years	34(51.52)	32(48.48)
11-20 years	44(73.33)	16(26.67)
Above 20 years	20(68.97)	9(31.03)
Missing	1(14.29)	6(85.71)
Provincial Hospital		
Gwanda	24(75)	8(25)
Gweru	16(37.21)	27(62.79)
Masvingo	34(72.34)	13(27.66)
Mutare	25(62.50)	15(37.50)

4.4 Health Workers Preferences of CPE Activities

4.4.1 Flexible MDL Activities

Respondents were asked which MDL activities were convenient to, and preferred by, them. They were allowed to provide multiple responses. Table 4.5 shows that on-the job training, attending local/international courses or workshops, followed by undertaking of a post graduate qualification, were cited as the most preferred type of training activities, with 31%, 28% and 23% of responses, respectively. The least preferred MDL activity selected was having office meetings, with 6% of responses in support of that.

Table 4.5: Types of Training Activities that are Convenient (n=162)

	Convenient MDL activities	
Responses	**Frequency**	**Percentage of responses**
On-the job training	107	31.2
Office meetings	21	6.12
Attending local/international courses or workshops	95	27.7
Engaging in distance learning	41	11.95
Undertaking of a postgraduate qualification	79	23.03
Total	**343**	**100**

4.4.2 Reasons for Preferring Some MDL Activities

Table 4.6 shows the reasons for preferring certain MDL activities. The findings show that the respondents felt that preferred activities enhanced their skills, with 30% of responses supporting this option. This was followed by those who said that they were in line with the participants' jobs (22% of responses), followed by those who were of the opinion that they had no costs on the learners' part and that were flexible (17% of responses). The least selected option was activities increased the chances of being promoted. This shows that the preference of MDL activities has a potentially limited link with chances of being promoted.

Table 4.6: Reasons for Preference for MDL Activities (n=167)

	Preferred MDL activities	
Responses	**Frequency**	**Percentage of responses**
It has no costs on the learners' part	70	16.95
It is flexible	70	16.95

It is in line with my job	89	21.55
It enhances my skills	124	30.02
It increases chances of being promoted	60	14.53
Total	**413**	**100**

4.4.3 Reasons for not Preferring MDL Activities

Table 4.7 shows the reasons for MDL activities not being preferred. The reasons included that activities involved strenuous travel (29% of responses) and made it difficult to balance work and schooling (25% of responses). The fact that it was difficult to measure the progress (18% of responses) and that the MDL activities were perceived not to be challenging reflected a similar number of selections (17% of responses). The least selected option was the feeling that there are no benefits from MDP training (11% of responses).

Table 4.7: Reasons for not Preferring MDL Activities (n=146)

	Reasons for not preferring MDL activities	
Responses	**Frequency**	**Percentage of responses**
They are not challenging	41	17.08
It is difficult to measure the progress	43	17.92
There are no benefits	27	11.25
It is strenuous to travel	69	28.75
It is difficult to balance work and schooling	60	25
Total	**240**	**100**

4.5 Health Workers' Attitude Towards Existing CPE Programs

Tables 4.8 to 4.12 are the results of the health workers' attitudes towards the existing CPE programs. These were determined by what participants considered as the motivation to engage in CPE activities, the benefits of undertaking MDL, reasons for undertaking MDL, reasons for not undertaking MDL and the motivating factors in engaging in MDL activities.

4.5.1 Motivation to Engage in MDL Activities

Table 4.8 shows that the majority of respondents was motivated to participate in CPE activities, with marginally fewer nurses (87%) compared to doctors (93%) and allied health workers (100% of respondents). There appeared to be little difference among respondents who had been in service between 5 and 20 years (89 and 90% respectively), with respondents with a service record of over 20 years showing slightly less enthusiasm (83%). Amongst the Provincial Hospitals, only Gwanda, where 81% expressed interest, stood out a little as having a lower proportion of health workers who reported of motivation compared to the other three hospitals.

Table 4.8: Motivation to Engage in MDL Activities Presented by Demographic Data (n=153)

	Motivation to engage in MDL	
Demographic characteristics	**Yes (%)**	**No**
Gender		
Female	96(87.27)	14(12.73)
Male	40(93.02)	3(6.98)
Professional cadre		
Doctor	13(92.86)	1(7.14)
Nurse	107(86.99)	16(13.01)
Allied Health Workers (*laboratory, pharmacy, radiography & rehabilitation*)	14(100)	0(0)
Missing	2(100)	0(0)
Years employed in health service		
5-10 years	60(89.55)	7(10.45)
11-20 years	49(89.09)	6(10.91)
Above 20 years	20(83.33)	4(16.67)
Missing	7(100)	0(0)
Provincial Hospital		
Gwanda	25(80.65)	6(19.35)
Gweru	38(92.68)	3(7.32)
Masvingo	40(88.89)	5(11.11)
Mutare	33(91.67)	3(8.33)

4.5.2 Benefits of undertaking MDL

Table 4.9 shows that the majority of health worker cadres stated that the greatest benefit of undertaking MDL is that it improves their performance in their current role (32% of responses), followed by those that feel that it enhances their career prospects (29% of responses). Only 1% of respondents saw no benefit from MDL. This shows that to a large extent, health worker cadres see the benefits of undertaking CPE activities. Interestingly, a relatively substantial 20% of responses revealed that respondents felt that MDL is improving the status of the profession.

Table 4.9: Benefits Considered for Undertaking MDL (n=173)

	Benefits of undertaking MDL	
Responses	**Frequency**	**Percentage of responses**
Improves my performance in my current role	138	31.87
Enhances status of the profession with other health practitioners	88	20.32
Enhances status of the profession with the public	79	18.24
Enhances my career prospects	125	28.87
I see no benefits from MDL	3	0.69
Total	**433**	**100**

In line with the above responses, the majority of participants emphasized skills improvement and career development as key reasons for undertaking MDL (Table 4.10 below), while compliance and intrinsic interests were less frequently mentioned reasons.

Table 4.10: Reasons for undertaking MDL (n=173)

	Reasons to undertake MDL	
Responses	**Frequency**	**Percentage of responses**

Compliance with requirements	43	11.5
Skills improvement	151	40.37
Intrinsic interest	46	12.3
Career development	134	35.83
Total	**374**	**100**

4.5.3 Reasons for Not Undertaking MDL

As shown in Table 4.11, lack of funding was the main reason provided for not undertaking MDL (32% of responses), followed by other commitments (21% of responses). The least commonly selected reason for not undertaking MDL was that the MDL programs/topics were not relevant to the health care workers (3% of responses). Only a small number of respondents gave studies elsewhere as a reason why they were not participating in CPE activities in Zimbabwe.

Table 4.11: Reasons for Not Undertaking MDL (n=157)

	Reasons not to undertake MDL	
Responses	**Frequency**	**Percentage of responses**
I am already undertaking other post-graduate education	16	5.61
MDL programs/topics are not relevant to me	8	2.81
Other commitments	60	21.05
Timing of the courses	37	12.98
Distance to venue too far to travel	40	14.04
Lack information on what MDL activities are available	32	11.23
Lack of funding	92	32.28

Total	**285**	**100**

4.5.4 Motivating Factors in Engaging in MDL

Table 4.12 shows that employer support ranked highest as a motivator, with 23% of responses citing this. This was followed by the availability of MDL activities closer to workplace locations as confirmed by 22% of responses. The least frequently listed motivator was understanding what workplace activities can constitute appropriate MDL, as confirmed by 7% of responses.

Table 4.12: Motivating Factors to Engage in MDL (n=162)

	Motivating factors for engaging in MDL	
Responses	**Frequency**	**Percentage of responses**
Availability of MDL activities closer to my workplace location	97	22.45
Greater frequency and a more convenient range of times for MDL	40	9.26
Availability of an enhanced range of topics that meet practice needs	62	14.35
More access to online or technology-based learning methods for MDL	57	13.19
Understanding what workplace activities can constitute appropriate MDL	31	7.18
Further training to understand the concept of MDL	47	10.88
Support from employer (time-off funding)	98	22.69
Total	**432**	**100**

4.6 Arrangements for MDL by Hospitals

Table 4.13 shows the results from the selected hospitals on arrangements to ensure that all health professionals undertake MDL.

4.6.1 Arrangements to Ensure That All Health Professionals Undertake MDL

Table 4.13 shows that hospitals have tried to make arrangements to ensure that all health professionals undertake MDL. However, the arrangement that seems to have been implemented most is allowing paid/unpaid time off for MDL activities (34% of responses). It is followed by funding of activities (25% of responses), followed by providing in-house training and development activities (20% of responses).

Table 4.13: Arrangements Put in Place to Ensure That All Health Professionals Undertake MDL (n=167)

	Arrangements in place to ensure all health professionals undertake MDL	
Responses	**Frequency**	**Percentage of responses**
Allowing paid/unpaid time off for MDL activities	104	34.44
Funding MDL activities	74	24.5
Requiring health professionals to undertake minimum levels of MDL	29	9.6
Providing in-house training and development activities	61	20.2
Providing a staff study area within the institution	24	7.95
None	10	3.31
Total	**302**	**100**

4.7. Challenges of Implementing CPE Activities

Tables 4.14 and 4.15 present results on whether the health worker cadres faced any challenges in undertaking CPE. It is determined by the reported expression of challenges in implementing CPE activities and the actual challenges that might have hindered one from implementing MDL activities.

4.7.1 Challenges of Implementing CPE Activities

Table 4.14 shows that more men than women expressed that they had some challenges

hindering them from implementing MDL activities (74% and 61%, respectively). A total of 77% of Allied Health Workers indicated that they had some challenges and it was higher compared to the Doctors who had only 58% of them facing some challenges. In the breakdown, it is noticeable that those who had served for more than 20 years still had challenges in implementing MDL activities, as indicated by 76% of them. Staff at Gweru Hospital most frequently cited challenges (73%), but respondents at Gwanda Hospital, who showed lower motivation (see table 4.8), mentioned challenges less frequently (47%).

Table 4.14: Challenges of Implementing CPE Activities Presented by Demographic Data (n=160)

	Challenges hindering implementation of MDL activities	
Demographic characteristics	**Yes (%)**	**No**
Gender		
Female	74(61.16)	47(38.84)
Male	29(74.36)	10(25.64)
Professional cadre		
Doctor	7(58.33)	5(41.67)
Nurse	85(63.91)	48(36.09)
Allied Health Workers (*laboratory, pharmacy, radiography & rehabilitation*)	10(76.92)	3(23.08)
Missing	1(50)	1(50)
Years employed in health service		
5-10 years	46(66.67)	23(33.33)
11-20 years	36(61.02)	23(38.98)
Above 20 years	19(76)	6(24)

Missing	2(28.57)	5(71.43)
Provincial Hospital		
Gwanda	14(46.67)	16(53.33)
Gweru	29(72.50)	11(27.50)
Masvingo	34(68)	16(32)
Mutare	26(65)	14(35)

4.7.2 Challenges Preventing Health Workers from Participating in MDL Activities

Participants were further asked what kind of challenges were preventing them from participating in MDL activities and results are shown in Table 4.15.

While, unsurprisingly, the most selected challenge was that it is expensive (33% of responses), the second one was lack of recognition from employers after the completion of studies (e.g. no promotion or pay grade increase) (31% of responses) and thirdly, it was revealed that the process of undergoing MDL was cumbersome (19% of responses). Both of these should be explored further.

Table 4.15: Challenges that Might Have Hindered One from Implementing MDL Activities (n=136)

	Challenges hindering implementation of MDL activities	
Responses	**Frequency**	**Percentage of responses**
It is time consuming	21	8.94
It is expensive	78	33.19
The process of undergoing MDL is cumbersome	44	18.72
There is no recognition by the employer after completion of the studies	73	31.06

What is learnt does not tally with what is practically done at the workplace	19	8.09
Total	**235**	**100**

4.8 Participants' suggestions for improvement of MDL

In Table 4.16 participants' suggestions for improvement of MDL are presented.

4.8.1 Suggested Ways Which can Enhance MDL Programs Implementation

Table 4.16 shows the suggested ways which can enhance MDL programs implementation. The most common suggestion was that the health professional should be given an additional qualification allowance after having undergone CPE (23% of responses), as a way of motivating employees. Furthermore, it should be ensured that CPE is brought closer to work places to avoid travel time and long times off duty (22.6%). This was followed by those who were of the opinion that eLearning opinions should be introduced (22% of responses).

Table 4.16: Suggested Ways Which can Enhance MDL Programs Implementation (n=162)

	Suggested ways which can enhance MDL programs implementation	
Responses	**Frequency**	**Percentage of responses**
Ensuring that CPE is brought closer to work places to avoid travel time and long times off duty	100	22.57
Introducing eLearning opinions	97	21.9
The provision of CPE grants or subsidies to members undergoing a CPE program	70	15.8
Ensure that the duration to undergo a CPE program are not too long	72	16.25

Give the health professional an additional qualification allowance to a member who will have undergone CPE as a way of motivating employees	104	23.48
Total	**443**	**100**

4.9 Summary

The key findings presented in this chapter were that health worker cadres are highly knowledgeable about the CPE activities, with an average of 97% of respondents confirming this. Participants' participation in CPE activities varied by demographic characteristics. Females and Allied Health Workers were the majority here. Of those who had previously undertaken CPE activities, those who served for 5 to 10 years had the largest proportion, while Gwanda Provincial Hospital had the largest number of staff who had undertaken CPE activities. Gweru Provincial Hospital had the most staff reporting challenges with the implementation of MDL activities (73%). With regard to the health workers' attitude towards existing CPE programs, Gweru Provincial Hospital had the greatest proportion who revealed that they were highly motivated to engage in MDL activities (93%). In addition, the most commonly reported benefit of undertaking MDL was that it improved their performance in their current role (32%). In addition, the most commonly reported challenge to the implementation MDL was that it is expensive (33%). As a way to enhance MDL programs implementation, the health workers felt that reward was necessary (23%).

CHAPTER 5: DISCUSSION

This study set out to better understand critical health cadres' knowledge of and participation in CPE activities in four provincial hospitals in Zimbabwe, and to explore barriers to greater uptake.

This chapter presents the discussion of findings, focusing on the knowledge of health worker cadres regarding CPE opportunities, their participation in CPE activities, their attitude towards existing CPE programs and the challenges they were facing in undertaking these CPE programs. The chapter will also discuss the suggestions for improvement of MDL activities that were brought about by the health workers.

5.1. Knowledge About and Participation In CPE Activities

Almost all study participants were aware of the existence of CPE activities; overall 97%, and at Masvingo Hospital 100% of respondents confirmed that they knew about CPE.

This does not mean however, that they have all taken part in these activities. 20% and 11% of women and men respectively were engaged in CPE at the time of the study, and 62% and 60% respectively had previously taken part in CPE. A very substantial percentage of respondents in all professions had never participated in MDL. It is particularly worrying that 28% of staff with 11+ service years and 31% with more than 20 years of service had never attended CPE activities. As mentioned earlier Zimbabwe, like many African countries does not require documentation of CPD completion for relicensure (Muula, Misiri, Chimalizeni, Mpando, Phiri, & Nyaka, 2004). If this were changed, all the health workers would have had to have been involved in CPE programs, given the fact that knowledge of MDL was not a factor of concern. Access and challenges to access are discussed further down.

It is noteworthy that Masvingo Hospital needs to be credited for having the highest number of health worker cadres currently engaging in CPE activities (43%) as well as 72% who have previously been involved in the CPE activities. It should be explored further what is contributing to the higher participation rates at Masvingo Hospital.

5.2. Attitude Towards Existing CPE Programs

After establishing levels of participation the study addressed three inter-related clusters of questions: motivators and enabling factors for participation in CPE, preferred activities and

challenges.

5.2.1 Motivation and Enabling Factors

In general, participants showed high levels of interest in, and motivation to, engage in MDL activities, with plus/minus 90% across all categories expressing their motivation.

A small percentage (6%) said that partners, NGOs and other civic organizations were helping out with their money to carry out some workshops. This is a small percentage compared to other countries where development agencies not only frequently pay for training and workshops, but also pay very high per diems etc. This was shown in a study done by Bryce et al., (1993) in Mozambique and Togo, for example, where one development agency paid the equivalent of 18 months' salary to health professionals participating in a three-week provincial workshop and four development agencies gave the participants in CPE program payment for subsistence support, respectively. However, this was discouraged by Aiga and Banta, (2003) who said that there is an emerging risk that CPE is considered to be a tool for extra income opportunity.

5.2.2 Preferred MDL Activities

On-the-job training was the most convenient/preferred MDL training activity, with 31% of responses. It was followed by attending local/international courses or workshops with 28% of responses. This agrees with Schaefer (2005), and Ng, (2017) who said that approaches such as on-the job training and blended learning can be used to minimize the amount of time health workers must spend away from their jobs. This could reduce staff shortages and heavy workloads as suggested by Mosol et al, (2017) and Leroyer, (2017), if the lessons are brought closer to them and also having health care workers learning while practicing. The most cited reasons for preferring some MDL activities were that it enhances health workers' skills with 30% of responses and that it was in line with the health workers' jobs, with 22% of responses. Hence this will be a way to avoid a situation whereby training will not be matching the attendee's job, as also discovered by Leroyer, (2017).

On the other hand, some MDL activities were said not to be preferred, mostly because of the strain of travel and the difficulty of balancing work and schooling – which reiterates the

preference for on-the-job training, which not only avoids the strain of travel but also the application of newly acquired knowledge and skills.

5.2.3 Challenges in Undertaking CPE Programs

Most participants expressed some challenges with participating in CPE activities, although, interestingly, more males (74%) than females (61%) did. This is a point to note as it has been mentioned before that more females undertook CPE activities. It is also interesting to note that those with service of 20 years had the highest number of respondents expressing challenges (76%) – although one has to take note of the very small number of respondents in this category.

Cost and lack of funding was identified as a major challenge, with 32% of responses. Davis & Parboosingh (1993) also noted underfunding to be amongst the barriers to CPD. In the case of Zimbabwe, there is need to find out what sort of funding health workers are referring to as in Zimbabwe the institutions under study have the training institutions for post-basic programs for nurses.

Another commonly cited challenge and reason for not undertaking MDL was other commitments, mentioned by 21% of respondents. These could be, for example, family commitment, as echoed by Mosol et al, (2017); Leroyer, (2017). Hence, there is need find a better way to motivate health worker cadres to take part in the CPE activities.

Another challenge (a disincentive rather than a barrier) identified by 31% of respondents was that there is no recognition by the employer after completion of the studies. According to Claire, Cross & McGuire, (2006) increased expectation of promotion is bound to be there and it is the one which will have motivated one to undertake CPE, even if it may be expensive, strenuous and even requires one to suspend other commitments. Therefore, there is need to better align requirements and training through more careful planning. For instance, if there is no post to promote the person to, there should be a special area that can be created for the person, rather than dumping the person and letting the person go unnoticed. This might reduce professional isolation as well as retain employees, as they will be having a sense of belonging in the organization.

5.3 Suggestions for Improvement of MDL Activities

The health workers suggested ways which can enhance MDL programs implementation. These include that they should be given an additional qualification allowance after undergoing CPE as a way of motivating them, with 23% of responses. This is probably to compensate the expenses encountered during their studies. In addition, they also felt that it should be ensured that CPE is brought closer to work, again with 23% of responses. Moreover, they (health workers) felt that eLearning options should be introduced, with 22% of responses. Thus, there is need to make sure adequate resources for eLearning are gathered, as there is need for the computers, WiFi or internet connectivity and stationery to keep this approach going. Also, there is need to see to it that supplementary measures are taken into account in the event that there is a power cut. Also, staff need to be taught how to operate high technology devices. This was supported by Feldacker et al, (2017) who argue that one increasingly available way of bringing CPD closer to target audiences is e-learning. Curran (2006) also stated that technology-based delivery methods, or tele-education, were frequently identified as best practice strategies for improving access to or delivery of CPE. He also noted that the introduction of tele-health programming and the provision of CPE grants or subsidies were also described as 'best practice' strategies.

5.4 Summary

This chapter presented the discussion of the important findings of this study in relation to the study objectives. The health workers' knowledge to CPE was high but there was quite a number of health workers who had never undertaken CPE activities and these were from those who had served for more than 20 years and Gweru Hospital having the most health workers who had not taken part in CPE activities. However, noted challenges such as cost and lack of funding as well as underfunding, other commitments by employees, lack of recognition by the employer after completing the studies should be addresses so as to aliviate the importance of undertaking CPE activities. This is because it has been proved that health workers would want to participate more in CPE activities if there are some improved conditions attached to their participation in these activities such has ensuring that they are brought closer to them by providing on-the job training and funding. Finally, some of the suggestions for improvement of this study were discussed. The next Chapter will present the conclusions and recommendations emanating from the study.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

The previous chapter focused on the discussion of the important findings of the study. This chapter presents the conclusions and recommendations of this study. The proposed recommendations will address the key findings reported in Chapters Four and Five.

6.1 Conclusion

There were no differences between the locations of hospitals included in the study, as they were all from an urban set up. Hence, there is bound to be some equal distribution of resources – including opportunities and financial support for workers to attend CPE programs. However, notable findings of this study are the high level of knowledge of CPE and quite a number of health workers who served for more than 20 years not knowing anything about CPE. This would affect the health workers' participation in CPE programs, which is moderate. It is worrisome to observe low uptake of CPE by health worker cadres who are presently taking part, as compared to those who have previously taken part who are relatively low. Gweru Provincial Hospital, in particular, has many health workers who had not taken part in CPE activities. The uptake is higher in the nursing category compared to the allied health workers and doctors. Hence, there is need to put in place strategies to motivate employees to undergo CPE activities and curb challenges that hinder health workers from undergoing MDL.

6.2 Recommendations

Based on the findings and observations made from this study, the participants' suggestions, and literature reviews, the following recommendations are proposed for intervention at the hospital management level, Head Office level, Health Service Board level and government level:

- It should be mandatory that key health professionals should begin to engage with further training as soon as they have completed their probation. This is meant to ensure that there is continuity in CPE activities soon after the basic statutory training has been ceased. This would facilitate a constant refreshing of skills and development of specialization, thus reducing skills and gaps needs for referral.
- There should be a balance in having all the health worker categories taking part in CPE activities as it seems that the biggest category in taking up these activities were the nurses, as compared to the allied health workers and doctors.

- Furthermore there should be better alignment of present and future needs and targeted training through systematic human resource planning.
- In addition, those health professionals who will be going to take part in the MDL activities should receive funding from the Government.
- Government should introduce motivators for MDL participation, such as giving a better remuneration package as well as getting monetary awards for the long serving members and observing the worker of the year (gratuity). This could minimize errors at work as the health workers would put more effort in taking part in the CPE activities so as to gain more skills, than concentrating on other issues such as finding ways to supplement their salaries.
- Gweru hospital needs further investigation as to the reasons why it has fewer health workers cadres taking part in CPE activities regardless of them having knowledge on it. There could be some hindrances apart from the ones mentioned from a closed ended questionnaire and these has to be probed by having the Ministry of Health and Child Care intervening.

REFERENCES

Abbott, P. A., Omollo, K., Bell, S., Rana, G., Hammond, N., Mutumba, M., Jiang, Y., & Mwenesi, R., (2016). *An Exploration of National Policies and Effective Practices for Electronic and Mobile Learning for Nursing and Midwifery Education.* WHO Commissioned Peer-Reviewed Monograph #N020433-00. January, 2016.

Adelson, R., Watkins, F.S., & Caplan, R.M., (1985). *Continuing education for the health professional: education and administration methods.* Rockville: An Aspen Publication

Ahmed, A., M., & Hagos, B., (1993). Continuing Medical Education in Eritrea: need for a system. *Human Resources for Health Development Journal, 3 123-138.*

Aiga H., (2006). *Measuring Access To Continuing Professional Education Among The Health Workers In Ghana:* Constructing An Index Social Indicator Research (2006) 77: 449–478.

Aiga, H., (2006). *Reasons for participation in and needs for continuing professional education among health workers in Ghana.* Health Policy 77 (2006) 290-303.

Aiga, H. & Banta, J. E., (2003). *Emerging crisis of continuing professional education: Becoming dead letter between external pressure and personal incentive?* International Journal of Health Planning and Management 18(4), pp. 267–271.

Aiga, H. & Kuroiwa, C., (2005). *'Quantity and distribution of continuing professional education opportunities among health workers in Ghana'*. Journal of Continuing Professional Education in Nursing (in press).

Alhejji, A., Alramadan, M., Aljasim, M., & Alramadhan, B., (2015). *Barriers to Practicing Continuous Medical Education among Primary Health Care Physicians in Alahsa, Kingdom of Saudi Arabia.* Health Edu Res Dev 2015, 3:3

Badu-Nyarko, S.K., (2015). *A Survey of Continuing Professional Education of Nurses in Ghana.* Asian Journal of Humanities and Social Sciences (AJHSS) Volume 3, Issue-1, February, 2015http://dx.doi.org/10.4172/2380-5439.1000147

Babbie, E. & Mouton, J., (2001). *The Practice of Social Research*. Cape Town: Oxford University Press.

Beatty, R. M., (2001). Continuing professional education, organizational support, and professional competence: dilemmas of rural nurses. *The Journal of Continuing Education in Nursing, 2001. 32(5):203-9. PubMed.*

Berg, E.J., (1993). *Rethinking technical cooperation.* New York. UNDP.

Boissoneau, R., (1980). *Continuing education in the health professional: Education and administration methods.* (An Aspen Publication, Rockville).

Bowan, B. & O'Donnell, D., (1985). Needs assessment: An information processing model. *Journal of Continuing Education in Nursing 16(6), pp. 200–204.*

Bryce, J., F. Cutts, J., Naimoli, F. & Beesley, M., (1993). *What have teachers learnt?* The Lancet 342, pp. 160–161.

Claire M, Cross M. & McGuire D., (2006). "The motivation of nurses to participate in continuing professional education in Ireland". *Journal of European Industrial Training, Vol. 30 Iss 5 pp. 365 - 384*

Curran, V., R., Fleet, L., & Kirby, F., (2006). *Factors influencing rural health care professionals' access to continuing professional education.* National Rural Health Alliance Inc. Journal.

Davis, D. & Parboosingh, J., (1993). "Academic" CME and the social contract. Acad Med. (1993); 68:329-32. [PubMed]

Feldacker, C., Pintye, J., Jacob, S., Chung, M., H., Middleton, L., Iliffe, J. & Kim, H., N., (2017). *Continuing professional development for medical, nursing, and midwifery cadres in Malawi, Tanzania and South Africa: A qualitative evaluation.* PLoS ONE 12(10): e0186074. https://doi.org/10.1371/journal. pone.0186074

Fentahun, N. & Molla, A., (2012).*Determinants of and opportunities for continuing education among health care professionals in public health care institutions in Jimma township, Southwest Ethiopia.* Dove Press Journal: Advances in Medical Education and Practice. Published 17 September 2012.

Flores, P. Y. & Alonso, C. M., (2006). *Factors influencing nursing staff members' participation in continuing education.* Rev Lat Am Enfermagem. 2006; 14(3):309–315.

Giri, K., Frankel, N., Tulenko, K., Puckett, A., Bailey, R. & Ross, H., (2012). *Keeping Up to Date: Continuing Professional Development for Health Workers in Developing Countries.* IntraHealth International, September. Technical brief 6

Glass, J. C. & Todd-Atkinson, S., (1999). *Continuing education needs of nurses employed in nursing facilities.* Journal of Continuing Education in Nursing 30(5), pp. 219–228.

Hegge, M., Powers, P., Hendrickx, L., & Vinson, J., (2002). *Competence, continuing education, and computers.* The Journal of Continuing Education in Nursing, 33, 24-32.

HSB Regulations, (2006). *Health Service Board Statutory Instrument 117 of 2006.* Government Printers. Harare.

Kelly, K., Clark, B., Brown, V., & Sitzia, J., (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care 2003; Volume 15, Number 3: pp. 261-266.*

Langenback, M., (1988). *Curriculum models in adult education*. Malabar, FL: Krieger.

Leroyer, C (2017). *Continuing professional development for medical, nursing, and midwifery cadres in Malawi, Tanzania and South Africa: A qualitative evaluation*. PLoS One. 12(10): 1-23.

McNamara, K., (2007). *Improving health, connecting people: The role of ICTs in the health sector of developing countries. A framework paper.* InfoDev. http://www.infodev.org/en/Document.84.pdf (accessed July 30, 2012).

MoH Kenya, (2013). *CPD Programs for Pharmacy Professionals Assessment Report on status of implementation in Kenya.* Ministry of Medical Services Ministry of Public Health and sanitation, Nairobi. February 2013.

MoHSW Tanzania, (2014). *MoHSW Human Resource for Health and Social Welfare: Strategic plan 2014-2019.* Retrieved from https://www.jica.go.jp/project/tanzania/006/materials/ku57pq00001x6jylatt/HRHSP_2014-2019.pdf

Mosol, P., Kei, R, Obwoge, R.O. & Ng'eno, A., (2017). *Challenges Facing Nurses while Participating in Continuing Professional Development: A case of Western Kenya.* American Journal of Nursing Science. Vol. 6, No. 4, pp. 304-307.

Mouton, J., (2001). *How to succeed in your Master's & Doctoral Studies. A South African Guide and Resource Book.* Pretoria: Van Schaik.

Muula, A. S., Misiri, H., Chimalizeni, Y., Mpando, D., Phiri, C. & Nyaka, A., (2004). Access to continued professional education among health workers in Blantyre, Malawi. *Journal of Health Sciences. Vol 4, No 3:*

Ndege, F., (2006). *Continuing Professional Development*. Capacity Plus. Nairobi.

Neumann, W.L., (2000). *Social Research Methods: Qualitative and Qualitative Approaches.* Boston: A Pearson Education publication.

Ng, Y. (2017). *The effect of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A mixed-method study (Master of Philosophy (School of Nursing).* University of Notre Dame Australia. https://researchonline.nd.edu.au/theses/155.

Ohno, J., (1997). *'Situation analysis of in-service training on maternal and child health among public health nurses', Study on efficient implementation of maternal and child health programs at municipality level.* Ministry of Health and Welfare, 1997, 333–342 (in Japanese).Osika, J., Altman, D., Ekbladh, L., Katz, I., Nguyen, H, Rosenfield, J., Williamson, T. & Tapera, S., (2010). *Zimbabwe Health System Assessment 2010*. Health Systems 20/20 Project, Abt Associates Inc. Available at: http://www.healthsystems2020.org/content/resource/detail/2812/

Peck, C., McCall, M., McLaren, B. & Rotem, T., (2000). *Education and debate: Continuous medical education and continuing professional development: international comparisons*. du Boulay and Asbjorn Holm. London.

Pelletier, S., (2010). *"Globalizing CME's future"*. Medical Meetings 37, no. 6: 35-37.

Poudel, L, Panthi & Sharma, S., (2018). *Continuous Professional Development in Healthcare Lifelong learning for nurses in the workplace Pant Degree Thesis Degree Programme in Nursing 2018*. Arcada University of Applied Sciences.

Schaefer, L., (2005). *A guide to IUD in-service training and pre-service education.* IUD Toolkit. Washington, DC: USAID/ Maximizing Access and Quality (MAQ) Initiative. http:// archive.k4health.org/system/files/PNADI086.pdf (accessed July 30, 2012).

Schoen, D. C. & Morgan, A. P., (1993). *Who pays for continuing education in nursing'?* Journal of Continuing Education in Nursing 24(1), pp. 13–16.

Schostak, J., Davis, M., Hanson, J., Schostak, J., Brown, T., Driscoll, P., Starke, I., & Jenkins, N., (2010). *'Effectiveness of Continuing Professional Development' project: a summary of findings'*. Med Teach. 2010; 32 (7):586-92.

Stagnnitti, K., Schoo, A., Reid, C., & Dunbar, J., (2005). *Access and Attitude of Rural Allied Health Professional to CPD and Training. International Journal of Therapy and Rehabilitation.* Vol 12, no.8 P 355-372.

Todd, C., Ray, S., Madzimbamuto, F. & Sanders, D., (2009). *What is the way forward for health in Zimbabwe?* The Lancet 375: 606-609.

Treece, E., & Treece, J., (1986). *Elements in Research in Nursing.* St Louis: Mosby.

Uganda Health Professionals Councils (UHPC), 2008. *Guidelines and standards for accreditation of continuing professional development for health workers.* Chapel Hill, NC: Capacity Project. http://www.capacityproject.org/ images/stories/files/accreditation_cpd_health_workers.pdf (accessed July 30, 2012).

van der Velden, T., Ton, H. N., Nguyen, H. V., Ngo, H. V., & Baron, R. B., (2010). *Continuing medical education in Vietnam: New legislation and new roles for medical schools.* Journal of Continuing Education in the Health Professions.

Weiner BJ. A theory of organizational readiness for change. *Implement Sci* (2009) 4(1):67. doi:10.1186/1748-5908-4-67

World Health Organization, (2006). *Working together for health.* World Health Report. 2006.

World Health Organization, (2013). *A Universal Truth: No Health without a workforce.* Geneva.

World Health Organization, (2013). *Transforming and scaling up health professionals' education and training.* World Health Organization Guidelines. 2013.

World Health Report, (2006). *Working together for health.* WHO Library Cataloguing-in-Public Data.

Younies, H., Berham, B., & Smith, P. C., (2010). *Perceptions of continuing medical education professional development, and organizational support in the United Arab Emirates. Journal of Continuing Education in the Health Professions,* 30 (4), 251-256. DOI: 101002/chp.20090

APPENDICES

APPENDIX 1: PARTICIPANT INFORMATION SHEET

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INFORMATION SHEET

Project Title: The health workers' uptake of continuing professional education in selected Provincial Hospitals in Zimbabwe.

What is the study about?

This is a research project being conducted by Julian Chazovachii, a student at the University of the Western Cape, South Africa. This study is a requirement in partial fulfilment of the Master of Public Health (MPH) degree from the University of Western Cape. We are inviting you to participate in this research project because you fall in into the category of doctors, nurses and paramedics from any of the following selected provincial hospitals which are under the study. These are Masvingo Provincial Hospital, Mutare Provincial Hospital, Gwanda Provincial Hospital and Gweru Provincial Hospital. The purpose of this research project is to assess the extent to which doctors, nurses and paramedics participate in Manpower Development programs in four provincial hospitals in Zimbabwe, and to ascertain reasons for non-participation.

What will I be asked to do if I agree to participate?

If you agree to participate you will be given a questionnaire which you are expected to fill in, responding to the asked questions. This is a way at which you can share experiences, challenges, feelings, attitude and perceptions about undertaking a Manpower Development program. The first section requires you to introduce yourself by indication your profession and length in service before completing other sections of the questionnaire. The questions have some answers which you need to pick by ticking while you follow the instructions written in italics. Your answers will guide the rest of the study. The questionnaire will be handed to the

respondents and collected the following day. It will be collected as soon as you are done with the filling, at a time which is flexible to you.

Would my participation in this study be kept confidential?

This research project involves filling of the questionnaire using closed-ended questions. The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, your name will not be mentioned and will not appear on any form, but your name will be given a code that will be used to identify you and only the researcher will have access to the code. To ensure your confidentiality will be maintained all, hard copies of documents will be stored in filing cabinets in a locked office and soft copies on password protected computer files. They will only be accessible to the research investigators. If we write a report or article about this research project, your identity will be protected.

What are the risks of this research?

There may be some risks from participating in this research study. All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help other investigators learn more about what health workers are going through when trying to further study. We hope that in future other health workers might benefit from this study through our improved understanding of how manpower development programs could be more effectively implemented in the health system for a good health delivery system.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Julian Chazovachii, School of Public Health at the University of the Western Cape. If you have any questions about the research study itself, please contact Julian Chazovachii at: PMD Masvingo, 039262465 ext 131, 0772 770 307. Alternatively you can contact her via email (chazovachiij@gmail.com).

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

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This research has been approved by the University of the Western Cape's Biomedical Research Ethics Committee

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

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APPENDIX 2 CONSENT FORM

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CONSENT FORM

Title of Research Project: The health workers' uptake of continuing professional education in selected Provincial Hospitals in Zimbabwe.

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that participation in this study is voluntary and I do not expect any compensation. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

I understand that this research project requires me to fill in a questionnaire.

_____ I agree to fill in the questionnaire during my participation in this study.

_____ I do not agree to fill in the questionnaire during my participation in this study.

Participant's name…….

Participant's signature…….

Date……

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

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APPENDIX 3 QUESTIONNAIRE

Survey on the health workers' uptake of Continuing Professional Education (CPE) in selected Provincial Hospitals in Zimbabwe.

To be appropriately ticked / filled by the sampled population of the target group – Doctors, Nurses and Allied health workers (laboratory, radiography, rehabilitation). In the Zimbabwean context the term Manpower Development Leave (MDL) will be used in place of CPE.

Date.....

Name of Province.....

Name of Hospital.....

Name of Data collector.....

Section One –Personal Details

1. Gender: Male [ ] Female [ ]

2. Age:

3. Professional cadre: Doctor [ ] Nurse [ ] Allied Health Workers [ ]

Others (specify) _____

4. How many years have you been employed in the health service (period):

5-10yrs [ ] 11-20 yrs [ ] ≥ 21yrs [ ]

Section Two – Understanding and Practice of CPE and particularly our MDL Among Health Professionals

5. Do you know anything regarding MDL? Yes [ ] No [ ]

6. What do you consider the benefits of undertaking MDL? [*You may tick more than one box*].

a) Improves my performance in my current role [ ]

b) Enhances status of the profession with other health practitioners [ ]

c) Enhances status of the profession with the public [ ]

d) Enhances my career prospects [ ]

e) I see no benefits from MDL [ ]

f) Other [ ] (*please specify*) ……..

7. What are key reasons to undertake MDL? [*You may tick more than one box*].

a. Compliance with requirements [ ]

b. Skills improvement [ ]

c. Intrinsic interest [ ]

d. Career development [ ]

e. Other (*please specify*) ……

8. What are reasons NOT to undertake MDL? [*You may tick more than one box*].

a. I am already undertaking other post-graduate education [ ]

Specify:……..

b. MDL programs/topics are not relevant to me [ ]

c. Other commitments [ ]

d. Timing of the courses [ ]

e. Distance to venue too far to travel [ ]

f. Lack of information on what MDL activities are available [ ]

g. Lack of funding [ ]

h. Other (*please specify*) ……

9. How many CPE programs have you attended so far?

5-10 [ ] 11-20 [ ] Several [ ]

10. Up to what level did you attend the CPE programs? [*You may tick more than one box*].

a. Diploma [ ]

b. First Degree [ ]

c. Masters Degree

d. Doctorate

e. Workshop [ ]

f. Other (*please specify*) …….

11. Who makes decisions about who may undertake MDL at your hospital? [*You may tick more than one box*].

a. The Provincial Medical Director [ ]

b. The Head of Department [ ]

c. Departmental arrangement with your colleagues [ ]

d. An individual upon getting an offer letter may proceed on MDL [ ]

e. Provisions by the Health Service Regulations [ ]

f. Other (*please specify*) ……

12. What arrangements have been put in place by your employer (if applicable) to ensure all Health professionals undertake MDL? [*You may tick more than one box*].

a. Allowing paid/unpaid time off for MDL activities [ ]

b. Funding MDL activities [ ]

c. Requiring health professionals to undertake minimum levels of MDL [ ]

d. Providing in-house training and development activities [ ]

e. Providing a staff study area within the institution [ ]

f. None [ ]

g. Other [ ] (*please specify*) _____

Section Three – Your own MDL Activities

13. Are you presently undertaking MDL? Yes [ ] No [ ]

14. Have you previously undertaken MDL? Yes [ ] No [ ] If so, specify when and what program.

a. Year ……..

b. Programs by category [*You may tick*]

i. Doctors: Gynaecology [ ] Ophthalmology [ ] Paediatrics [ ] Other [ ] (*please specify*) ……

ii. Nurses: Midwifery [ ] Anaesthetist [ ] Renal nursing [ ] Other [ ] (*please specify*) …….

iii. Allied health workers: (*please specify*) …….

15. Who sponsors your MDL activities/programs?

a. Self [ ]

b. Employer [ ]

c. Partners [ ]

d. No sponsorship [ ]

e. Others (*Please specify*) ……

16. Are you motivated to engage in MDL activities? Yes [ ] No [ ]

17. What would motivate you to engage in MDL? [*Tick all that apply*]

a. Availability of MDL activities closer to my workplace location [ ]
b. Greater frequency and a more convenient range of times for MDL [ ]
c. Availability of an enhanced range of topics that meet practice needs [ ]
d. More access to online or technology-based learning methods for MDL [ ]
e. Understanding what workplace activities can constitute appropriate MDL [ ]
f. Further training to understand the concept of MDL [ ]
g. Support from employer (time – off, funding) [ ]
h. Other [ ] (*please specify*)……..

18a. Are MDL activities convenient to you? Yes [ ] No [ ]

18b. In your opinion, which of the following MDL activities are convenient to you?

[*Tick all that apply*]

a) On-the job training [ ]

b) Office meetings [ ]

c) Attending local/international courses or workshops [ ]

d) Engaging in distance learning [ ]

e) Undertaking of a postgraduate qualification: [ ]

f) Other [ ] (*please specify*) _____

18c. In your opinion, why do you prefer these activities?

a. It has no costs on the learner's part [ ]
b. It is flexible [ ]
c. It is in line with my job [ ]
d. It enhances my skills [ ]
e. It increases chances of being promoted [ ]
f. Other [ ] (*please specify*) _____

19a. Which of the following MDL activities do you not prefer?

a. On-the job training [ ]

b. Office meetings [ ]

c. Attending local/international courses or workshops [ ]

d. Engaging in distance learning [ ]

e. Undertaking of a postgraduate qualification: [ ]

f. Other [ ] (please specify) _____

19b. Why don't you prefer these activities?

a. They are not challenging [ ]
b. It is difficult to measure the progress [ ]
c. There are no benefits [ ]
d. It is strenuous to travel [ ]
e. It is difficult to balance work and schooling [ ]
f. Other [ ] (please specify) _____

20a. Are there any challenges that might have hindered you from implementing MDL activities? Yes [ ] No [ ]

20b. Indicate challenges that might have hindered you from implementing MDL activities.

a. It is time consuming [ ]
b. It is expensive [ ]
c. The process of undergoing MDL is cumbersome [ ]
d. There is no recognition by the employer after completion of the studies [ ]
e. What is learnt does not tally with what is practically done at the workplace [ ]
f. Other [ ] (please specify) _____

Section Four – Suggestions for improvements of MDL

21a. Tick any three ways that you feel could be implemented so that all the professionals are aware of the requirements to undergo MDL. [*Tick all that apply*]

a. CPE for key health professionals should commence as soon as the basic statutory training has ceased [ ]

b. CPE should be mandatory for one to practise [ ]

c. Every year there should be required number of employees needed to take part in the CPE programs [ ]

d. The process of undergoing CPE should be well explained during orientation of the new staff [ ]

e. The Health Councils should be strict with relicensing those who have undergone CPE [ ]

f. Other [ ] (please specify) _____

21b. Explain why the above ways are appropriate? [*Tick all that apply*]

a. To ensure that CPE truly becomes a continuing process where key health professionals will be helped to embrace this concept which is based on the philosophy that it (CPE) is an on-going, lifelong learning process, which does not cease on one's profession [ ]

b. To improve the key health workers' knowledge and skills [ ]

c. To ensure that there is an equal opportunity to have all the key health workers selected for a CPE program [ ]

d. To make sure that everyone is aware of the existence of CPE and know when one is eligible for CPE [ ]

e. To ensure that one practices with enough knowledge or expertise while executing duties to avoid occupational errors [ ]

f. Other [ ] (please specify) _____

22. Please suggest ways in which we can enhance MDL programs implementation. [*Tick all that apply*]

a. Ensuring that CPE is brought closer to work places to avoid travel time and long times off duty [ ]

b. Introducing eLearning opinions [ ]

c. The provision of CPE grants or subsidies to members undergoing a CPE program [ ]

d. Ensure that the duration to undergo a CPE program are not too long [ ]

e. Give the health professional an additional qualification allowance to a member who will have undergone CPE as a way of motivating employees [ ]

f. Other [ ] (please specify) _____

THE END

Thank you for taking the time to complete this questionnaire

APPENDIX 4 SCHOOL OF PUBLIC HEALTH APPROVAL

UNIVERSITY of the WESTERN CAPE

OFFICE OF THE DIRECTOR: RESEARCH
RESEARCH AND INNOVATION DIVISION

Private Bag X17, Bellville 7535
South Africa
T: +27 21 959 4111/2948
F: +27 21 959 3170
E: research-ethics@uwc.ac.za
www.uwc.ac.za

05 December 2018

Ms J Chazovachii
School of Public Health
Faculty of Community and Health Science

Ethics Reference Number: BM18/9/10

Project Title: The health workers' uptake of continuing professional education in selected Provincial Hospitals in Zimbabwe.

Approval Period: 22 November 2018 – 22 November 2019

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

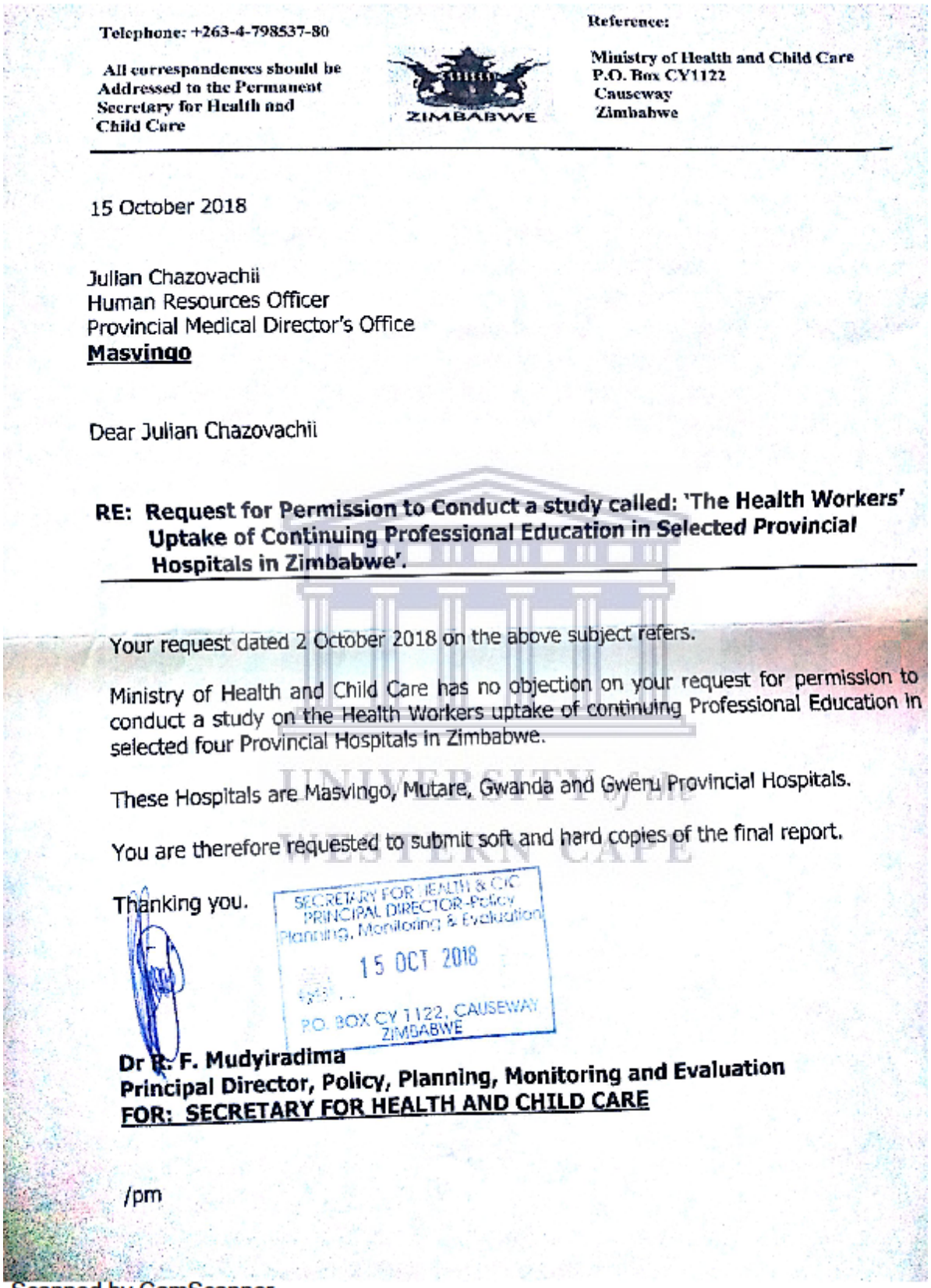
The permissions from the National Ministry of Health in Zimbabwe and the health facilities must be submitted to BMREC for record keeping.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

BMREC REGISTRATION NUMBER -130416-050

APPENDIX 5 MINISTRY OF HEALTH AND CHILD CARE APPROVAL



Telephone: +263-4-798537-80

All correspondences should be Addressed to the Permanent Secretary for Health and Child Care

ZIMBABWE

Reference:

Ministry of Health and Child Care
P.O. Box CY1122
Causeway
Zimbabwe

15 October 2018

Julian Chazovachii
Human Resources Officer
Provincial Medical Director's Office
Masvingo

Dear Julian Chazovachii

RE: Request for Permission to Conduct a study called: 'The Health Workers' Uptake of Continuing Professional Education in Selected Provincial Hospitals in Zimbabwe'.

Your request dated 2 October 2018 on the above subject refers.

Ministry of Health and Child Care has no objection on your request for permission to conduct a study on the Health Workers uptake of continuing Professional Education in selected four Provincial Hospitals in Zimbabwe.

These Hospitals are Masvingo, Mutare, Gwanda and Gweru Provincial Hospitals.

You are therefore requested to submit soft and hard copies of the final report.

Thanking you.

SECRETARY FOR HEALTH & CIC
PRINCIPAL DIRECTOR-Policy
Planning, Monitoring & Evaluation
15 OCT 2018
P.O. BOX CY 1122, CAUSEWAY
ZIMBABWE

Dr R. F. Mudyiradima
Principal Director, Policy, Planning, Monitoring and Evaluation
FOR: SECRETARY FOR HEALTH AND CHILD CARE

/pm

APPENDIX 6 MEDICAL RESEARCH COUNCIL OF ZIMBABWE APPROVAL

Telephone: 791792/791193
Telefax: (263) - 4 - 790715
E-mail: mrcz@mrcz.org.zw
Website: http://www.mrcz.org.zw

Medical Research Council of Zimbabwe
Josiah Tongogara / Mazoe Street
P. O. Box CY 573
Causeway
Harare

APPROVAL LETTER

REF: MRCZ/B/1619 **04 February, 2019**

Julian Chazovachii
Ministry of Health and Child Care
PMD Human Resources Department
P.O. Box 147
Masvingo
Zimbabwe

RE: THE HEALTH WORKER'S UPTAKE OF CONTINUING PROFESSIONAL EDUCATION IN SELECTED PROVINCIAL HOSPITALS IN ZIMBABWE

Thank you for the above titled proposal that you submitted to the Medical Research Council of Zimbabwe (MRCZ) for review. Please be advised that the Medical Research Council of Zimbabwe has **reviewed** and **approved** your application to conduct the above titled study. This is based on the following documents that were submitted to the MRCZ for review:

a) Study proposal
b) Questionnaire

APPROVAL NUMBER : MRCZ/B/1619
This number should be used on all correspondence, consent forms and documents as appropriate.

- **APPROVAL DATE : 04 February, 2019**
- **TYPE OF MEETING : Expedited**
- **EXPIRATION DATE : 03 February, 2020**
  After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the MRCZ Offices should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING:** All serious problems having to do with subject safety must be reported to the Institutional Ethical Review Committee (IERC) as well as the MRCZ within 3 working days using standard forms obtainable from the MRCZ Offices.
- **MODIFICATIONS:** Prior MRCZ and IERC approval using standard forms obtainable from the MRCZ Offices is required before implementing any changes in the Protocol (including changes in the consent documents).
- **TERMINATION OF STUDY:** On termination of a study, a report has to be submitted to the MRCZ using standard forms obtainable from the MRCZ Offices.
- **QUESTIONS:** Please contact the MRCZ on Telephone No. (04) 791792, 791193 or by e-mail o.

Other

- Please be reminded to send in copies of your research results for our records as well as for Health Research Database.
- You're also encouraged to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study.

Yours Faithfully

MEDICAL RESEARCH COUNCIL OF ZIMBABWE
2019 -02- 04
APPROVED
P.O. BOX CY 573 CAUSEWAY, HARARE

MRCZ SECRETARIAT
FOR CHAIRPERSON
MEDICAL RESEARCH COUNCIL OF ZIMBABWE

PROMOTING THE ETHICAL CONDUCT OF HEALTH RESEARCH