

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

SCHOOL OF NURSING AND MIDWIFERY

**ENGAGEMENT IN CONTINUING PROFESSIONAL
DEVELOPMENT PROGRAMS AND ITS BARRIERS AMONG
NURSES IN SELECTED HEALTH CARE SETTING OF ADDIS
ABABA, ETHIOPIA**

BY; MEAZA WEHABE (BSC)

**A THESIS SUBMITTED TO THE SCHOOL OF NURSING
AND MIDWIFERY, COLLEGE OF HEALTH SCIENCE,
ADDIS ABABA UNIVERSITY AS PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR MASTER OF SCIENCE IN
ADULT HEALTH NURSING.**

JUNE, 2023

ADDIS ABABA, ETHIOPIA

**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING,
MASTERS OF SCIENCE IN ADULT HEALTH NURSING PROGRAM**

RESEARCH PROJECT SUBMISSION FORM

Name of investigator	Meaza Wehabe Tsega (BScN)
Name of Advisor	Tigistu Gebreyohannis (BSc, MSN, Assistant Prof) Phone: +251939125455 Email: tgebreyohannis@yahoo.com
CO Advisor	Ketema Bizuwork (MSc, Lecturer) Phone: +251911884270 E-mail: ketema2005@yahoo.com
Title Duration of study	Engagement in continuing professional development programs and barriers among nurses in selected health care setting of Addis Ababa, Ethiopia April 1, 2022 -April 30, 2022.
Study Area	Selected health care settings in Addis Ababa, Ethiopia.
Total cost of the project	23,991.00 ETB
Address of investigator	meaziw1996@gmail.com

APPROVAL SHEET

ADDIS ABABA UNIVERSITY

COLLEGE HEALTH SCIENCES

SCHOOL NURSING AND MIDWIFERY

I, the undersigned MSc student, declare that I have submitted my original work on a title “Engagement on continuing professional development programs and barriers among nurses in a selected health care setting of Addis Ababa, Ethiopia” for the examination.

Submitted by:

Meaza Wehabe

Name of student

Signature

Date

This thesis work has been submitted for examination with my approval as an advisor.

Approved by:

1. **Tigistu Gebreyohannis** (Assistant Prof)

Name of Major Advisor

Signature

Date

2. **Ketema Bizuwork** (MSc)

Name of Co-Advisor

Signature

Date

3. _____

Name of Examiner

Signature

Date

4. _____

Head, School Nursing and Midwifery

Signature

Date

STATEMENT OF DECLARATION

I, the undersigned, declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

This thesis is submitted in partial fulfillment of the requirement for graduate degree from Addis Ababa University at College of Health Science, School of Nursing and Midwifery. The thesis is to be deposited in the Addis Ababa university digital library and is to be made available to the local and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

Brief quotations from this thesis may be used without special permission provided that accurate and complete acknowledgement of the source is made. Requests for permission for extended quotations from, or reproduction of, this thesis in whole or in part may be granted by the head of the department or all advisors of the thesis when in his or her judgment the proposed use of the material is in the interest of scholarship and publication. In all other instances, however, permission must be obtained from the author of the thesis.

STUDENT:

Name: **Meaza Wehabe** Signature: _____ Date: _____

RESEARCH ADVISORS:

Tigistu Gebreyohannis (Assistant Prof) _____

Name	Rank	Signature	Date
------	------	-----------	------

Ketema Bizuwork (MSc) _____

Name	Rank	Signature	Date
------	------	-----------	------

ACKNOWLEDGEMENT

First, my deepest gratitude goes to Almighty God for giving me the strength to complete this thesis. Secondly, I would like to acknowledge Addis Ababa University College of Health Sciences, School of Nursing and Midwifery for the offer of such a big chance that gives me light for my future luminous life in nursing research.

Thirdly, I am indebted to express my appreciation to my advisors Mr. Tigistu Gebreyohannis and Mr. Ketema Bizuwork who means all when I think about this work, by giving me the most important advice and comments that make my task easier.

Finally, my special recognition goes to FDRE Ministry of Health, Addis Ababa regional health bureau, Ethiopian Nursing Association Main branch in Addis Ababa and Amref Health Africa Ethiopia country office which offers me all the necessary materials and information.

TABLE OF CONTENT

ACKNOWLEDGEMENT	1
TABLE OF CONTENT	2
LIST OF TABLES	5
LIST OF FIGURES	6
ABBREVIATION.....	7
ABSTRACT.....	8
1. INTRODUCTION	1
1.1 Background.....	1
1.2 Statement of Problem.....	3
1.3 Significance of the Study.....	5
2. LITERATURE REVIEW	6
2.1 Introduction.....	6
2.2. Socio demographic of participants	6
2.3 Engagement of nurses on CPD programs	6
2.4 Barriers for the engagement of nurses on CPD programs	7
2.5 Conceptual Framework	9
3. RESEARCH OBJECTIVES	11
3.1 General Objective	11
3.2 Specific Objectives	11
4. METHOD AND MATERIAL	12
4.1 Study Area and Period	12
4.2. Study Design	12

4.3 Quantitative methods	13
4.3.1 Study Population	13
4.3.1.1 Source population	13
4.3.1.2 Study population	13
4.3.2 Eligibility Criteria	13
4.3.2.1 Inclusion criteria.....	13
4.3.2.2 Exclusion criteria.....	13
4.3.3 Sampling	13
4.3.3.1 Sample size determination	13
4.3.3.2 Sampling technique.....	14
4.3.4 Variable.....	14
4.3.4.1 Dependent Variable:	14
4.3.4.2 Independent variables	15
4.3.5 Definition of terms and Operational definition.....	15
4.3.6 Data collection instruments.....	16
4.3.7 Quality control	16
4.3.8 Data collection method	16
4.3.9 Data processing and analysis	16
4.4. Qualitative approach	17
4.4.1. Study design.....	17
4.4.2 Study Participant	17
4.4.3 Sampling technique.....	17
4.4.4. Eligibility criteria	17
4.4.4.1. Inclusion criteria	17
4.4.4.2 Exclusion criteria	17
4.4.5. Data collection tools and procedure.....	17
4.4.6 Trustworthiness.....	18

4.4.7. Data analysis	19
4.5. Ethical Consideration	19
4.6. Dissemination of the result	19
5. RESULT	20
5.1. Result of quantitative study	20
6 DISCUSSION	35
7. CONCLUSION.....	37
8. RECOMMENDATION	37
9. LIMITATION	37
10. REFERENCE.....	38
ANNEX A: Subject Information Sheet	41
ANNEX B: Consent Form.....	43

LIST OF TABLES

Table 1: <i>Proportional allocation of the sample size</i>	14
Table 2: <i>Socio-demographic characteristics of nurse at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n= 262)</i>	20
Table 3: <i>Nurses understanding the concept of CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=262)</i>	22
Table 4: <i>Participation of nurses on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=90)</i>	23
Table 5: <i>Formal and nonformal engagement on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)</i>	25
Table 6: <i>Engagement an in-service education at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)</i>	26
Table 7: <i>Bi-variable and Multivariable logistic regression on factors affecting the engagement of nurses on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)</i>	29
Table 8: <i>The socio-demographic characteristics of participants in the in-depth interview about engagement on continuing professional development education programs and barriers among nurses at health care settings in Addis Ababa, Ethiopia. (n=9)</i>	31
Table 9: <i>Themes of coding the in-depth interview about engagement on continuing professional development education programs and barriers among nurses at health care settings in Addis Ababa, Ethiopia. (n=9)</i>	32

LIST OF FIGURES

- Figure 1:** *Diagrammatic representation of the conceptual framework on the engagement activities of continuing professional development education programs and barriers for engagement* 10
- Figure 2:** *Engagement of nurses on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=262)* 22
- Figure 3:** *Reasons on barriers from attending in-service education provided by hospital at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=172)* 25

ABBREVIATION

AARHB	Addis Ababa Regional Health Bureau
ANA	American Nurses Association
APC	Annual Practicing Certificates
CPD	Continuous professional development
CPE	Continuous Professional Education
CE	Continuing education
FDRE	Federal Democratic Republic of Ethiopia
FMHACA	Food, Medicine and Health Care Administration & Control Authority of Addis Ababa
FMOH	Federal Ministry of Health
HCs	Health centers
HCWs	Health Care workers
KZN	KwaZulu-Natal
LMS	Learning Management System
MCPE	Mandatory continuing professional education
NCK	Nursing Council of Kenya
NMBA	Nursing and Midwifery Board of Australia
RN	Registered nurse
SANC	South African Nursing Council

ABSTRACT

Background: Continuing professional development (CPD) programs designate to verify health care workers' level of competence to safely, effectively and timely perform, client-centered care. The aim was to assess nurses' engagement in continuing professional development programs and explore barriers for engagement in the program.

Methods: Mixed approach, quantitative and qualitative cross-sectional study design was used. A total of 271 randomly selected nurses were included in the quantitative method, the study period was from April 1 to 30, 2022. Semi-structured self-administered questionnaire was used to collect data. The data were entered into Epi-data version 3.1 and analyzed using SPSS version 25.0. Descriptive statistics were used to describe participants' characteristics. Chi-square test was used to determine association between independent and the outcome variables. Level of significance was determined at P- value <0.05 , and factor barriers were assessed using multivariable logistic regression significant at p-value <0.05 . Goodness-of-fit was checked by the Hosmer-Lemeshow test (>0.05). The qualitative method used, an explorative descriptive, and thematic analysis. A total of 9 health professionals were purposively selected and interviewed.

Result: the median age of participants was 28 years old, the level of CPD engagement was 34.4%, the participants CPD engagement preference, obtaining additional formal education of nursing qualification and providing of in services education were significantly related with CPD engagement. Whereas, lack of finance, information on CPD availability, time due to family commitment, and lack of CPD resources were a significant barrier to engagement of CPD.

Conclusion and recommendation: The preference of participants, obtaining an additional formal education of nursing qualification, providing of in services education are significant relation to CPD engagement. Lack of finance, information on availability of CPD, time due to family commitment, and lack of CPD resources are significant relationships of barriers to CPD engagement. To the hospital administrators to focus on CPD activities in order to update the professions and would organize the training to nurses in their specialty area. As well as work with other stakeholders to address all scopes, and maintain the consistency of training.

Key Words: Barriers; Continuous Professional development; Engagement; Nurse.

1. INTRODUCTION

1.1 Background

Continuous professional development (CPD) programs designate to verify the competence of health care workers to perform safely, effectively, timely and patient-centered care in the rapidly expanding and increasingly becoming complex health care settings due to the advances in medicine, presence of emerging health conditions and revision on the scopes of practice (1-3).

The exponential advancement in technology, therapeutic measures and diagnostic workups along with the alteration in climate, population demographics and disease condition, necessitates updating continuously the knowledge and skills of health workers all over their professional life (3, 4). The introduction of evidence-based practice and changes happening in the health care policies also demand continuous education for nurses to acquire new skills and attitude, and remain current in their practice, as nurses are the largest group of healthcare professionals globally (4). These competences are advanced by means of different continued professional development education programs (5).

Skills to manage change and development, caring skills and management skills will be the principal requirement for nurses to provide evidence-based & reliable healthcare (5). Hence, CPD allows nurses to keep on updated which ultimately brings improvement in professional commitment, job satisfaction and patient care (6).

Continuous Professional Development is an organized and constant method of education, on-job training, learning, and work-related activities by establishing on a prior education and experience to guarantee continuing competence, advance knowledge and skills to different responsibilities or varying tasks (7). It is the very crucial aspect of post-registration education (8) and an integral component to deliver the best patient care with the definitive target of improving patient outcomes in different health care disciplines especially in nursing (2).

According to the World Health Organization, human resources are the most pertinent resource inputs of the healthcare system as it is very reliant on the knowledge, skills and motivation of the health care workers (9). Education and training are the most significant methods in the development of their performance (9, 10).

To advance and develop the already learned knowledge and skill, build newer competency in areas of specialization and minify gaps between learnt theory & practice are the main benefits of nurses participating in continuing professional development education programs ([10](#), [11](#)).

Governing bodies, accreditation organizations, certification boards, employers and the general public contemplate the engagement of health care providers in CPD activities as one of the most essential competencies' that should be possessed to ensure better-quality healthcare ([12](#)). Nursing is a vital component in the quality of healthcare service delivery as they are the frontier of the service with day to day caring to the needy patients ([13](#)). Hence, the health care systems mandate nurses who are flexible and skillful. Nurses are required to build their competency continually and obtain lifelong learning ([14](#)).

To ensure the sustainability of quality health service provision and satisfy patient & societal needs, it is mandated to go with the growing & constantly changing challenges of the healthcare system ([15](#)). Quality of health care refers to “the degree to which health care services for individuals and populations increase the likelihood of achieving desired health care outcomes and are consistent with current professional knowledge” ([16](#)). Hence, this study will provide information on nurses' engagement on CPD education programs in the selected health care settings and barriers affecting the engagement.

1.2 Statement of Problem

Quality of healthcare is becoming the most important concern globally as it is the right of every patient to get care without a danger to their lives. The safety of each individual patient requires being the highest priority so as to provide high quality health services. Diminished health consequences and even harm to a patient's life may occur if the service is unsafe and low quality. Unsafe and poor quality health care can cause injuries to the patients or death (11, 17). By referring several studies from literature Nwogbe, O. A. and Y. Haliso, relate injurious incidents relating to wrong diagnosis and treatment, injection misuse, anesthesia overdose and poor surgical procedures in hospitals to the incompetence of healthcare workers (11). Other studies also show that additional hospitalization due to infections acquired in hospitals have an extra burden on the health care budget of some countries each year. In addition, loss of reputation and credibility, total loss of trust in the services are additional collateral damage caused by non-qualified health care systems (17). Government and hospitals have the responsibility to protect the health of the general public by ensuring the delivery of high-quality healthcare (18).

Nearly two-thirds of the unfavorable events occur in developing countries and most of those problems were avoidable. This could be realized through a deliberate and continuous education and training programs for health workers. The proficiency of any healthcare providing establishments and hospitals to deliver quality & safe patient care and preserve excellent community health, is significantly influenced by well-trained health workers. They are the integral component to ensure sustainable and remarkable advancements in the safety of the healthcare system (11, 17, 18). In contrary, if competent & properly skilled health professionals are not existing in satisfactory quantities and disseminate consistently to the population, all the community members will not be able to obtain services corresponding to their medical needs (3). Therefore, Continuous Professional Development Education is distinguished as a significant mechanism for quality healthcare delivery and acknowledged as a definitive system of educating and training healthcare service providers to maximize their potential for best practice (2, 11, 19).

Studies have specified the necessity of monitoring the unremitting engagement of healthcare professionals on continuing professional education programs to protect the public and empower those practitioners to execute their professional activities more confidently and successfully (2, 13, 20). Basically, those professionals also have an obligation to

possess improvement on their proficiencies and obtain advantage of CPD education programs to have an evident effect on patient care quality improvement (11).

Engagement on Continuing Professional Development (CPD) in numerous countries in Africa is significantly low (21). Nwogbe, O. A. and Y. Haliso, emphasizes that this poor engagement on continuous professional development training activities of healthcare professionals contributes aggressively to substandard situations of the healthcare service provision especially in developing countries (11). Engagement of nurses on these programs can be enhanced if they have the knowledge about the importance of the program and if they are also incorporated during the planning and execution process (12).

The Ministry of Health of FDRE is now in the commencement stages of a mandatory CPD system for health care providers in Ethiopia. Participation in CPD activities and collecting a certain number of Continuing Education Units (CEUs) per year over a 5-year cycle is becoming mandatory starting from January 24, 2022 in order for a practitioner to renew their license every 5 years. For that matter Nurses in Ethiopia are also obligated to complete 30 CEUs per year along with a 5 CEU must obtain on Ethical education activity.

On study done in Malaysia, Chong et al., found that engagement of nurses on CPD programs before the commencement of mandatory CPE program was more encouraging than after its implementation. He mentioned that the implementation of mandatory CPE without careful planning and research is unlikely to deliver the anticipated development of reflective practice and critical thinking considered crucial for improved patient care (4, 22).

The major problem identified here in Ethiopia is that not enough research has been done on CPD education programs and less is known about the engagement of the nurses on CPD activities in different health care settings. The researcher felt that research is needed to identify the current status of nurses on their CPD engagement as well as any barriers which may affect their engagement before the implementation of mandatory CPD for professional nurses in Ethiopia. Hence, this study assesses the engagement of nurses on continuous professional development education programs and barriers which impact their engagement, who are working in different health care settings in Addis Ababa, Ethiopia.

1.3 Significance of the Study

The study provides information on the current status of nurses' engagement on CPD education programs in the selected health care settings. It also provides a background on the barriers affecting the engagement of those nurses on CPD education programs.

This information will empower the nursing management and education department to determine the extent of engagement of nurses on CPD programs & to plan actions which can improve the mechanism of CPD implementation in different health care settings, so as to increase the engagement of nurses on CPD activities. The recommendations will also be an input for policy makers and other stakeholders to formulate and develop updated policies to organize a compulsory program that addresses the barriers which will be identified through research. The findings may also help the FDRE to consider some of the recommendations in the implementation of the CPD nationally. All the findings of the study are provided to the relevant nursing related stakeholders.

2. LITERATURE REVIEW

2.1 Introduction

Continuing professional development is an effort for the improvement of quality of healthcare which offers the opportunity to advance their knowledge, skills and also to improve their performance for nurses working in different healthcare settings. It is vital for the provision of optimal care to the patient and improvement of the patient outcome. Therefore, this chapter would review literature towards engagement of CPD activities among nurses, and also the factors affecting engagements, by using the database of Google scholar and Pub med to explore the literature.

2.2. Socio demographic of participants

A Study done in the USA, South Florida indicates; the age did not have a relationship to the engagement of CPD activities (23). Another study done in Iran, to assess emotional intelligence and quality of nursing care shows that; age, gender, marital status, and educational qualification, have no relationship as a need for CPD (24).

A study in India, to assess the nurse attitude and barriers towards participation in continuing professional, showed that; majority of the nurses were belong to the age group of 21 to 40 years, BSC Nurse account 48% of participant, 68% of them were 10 years' experience, majority of nurses attended skill training programme in past 12 months (25).

A study done in Kisumu, Kenya, among nurses on perception of continuing professional development in a public health care facility. The findings showed that the age, gender of respondents did not have any significant effect on their participation in CPD. Highest level of completed qualification and years of experience had no impact on participation (15).

2.3 Engagement of nurses on CPD programs

A Study done in the USA, south Florida, on continuing professional development preferences and practices showed that; the respondents had a preference to engage CPD through an online activity (23).

A descriptive cross sectional study, done in Malaysia, on continuing professional education of practice among nurses reveals in the last 12 months, 80 % of nurses had participated in CPE, Workshops were the most common ways to engage (4).

A study in developing country, on continuing professional development encompasses all of the activities that health workers undertake both formal and informal to maintain, update, develop, and enhance their professional skills, knowledge, and attitudes (7).

A study done in South Africa, on the model development of continuing professional development for nurses showed that; CPD is not mandatory for licensing purposes (26).

A mixed approach study in Nigeria, at public hospitals among clinical nurses' on the perception of continuing professional education, indicated that 75.3% of nurses participated in CPD, and CPD is valuable and worthwhile for nursing practice (2).

A study done in Namibia, KwaZulu-Natal hospital, on factors affecting the performance of nurses showed that; nurses have the ability to access relevant information and have adequate technology in their area of specialization (27).

A study done in Kisumu, Kenya, among nurses on perception of continuing professional development in a public health care facility. The findings showed that; 88.9% of nurses were engaged in CPD (15). Similarly, another descriptive explorative study in Kenya on Perspectives of continuing professional development showed that; 72% were practiced CPD and 24% of them did not have. The participants preferred to engage away from the place of work were 48%, preferred to have CPD at the place of work were 40%, preferred other modes like; internet, reading journals were 12% (8).

2.4 Barriers for the engagement of nurses on CPD programs

A study in Australia done to assess the awareness, practice and future directions of nurses on continuing professional development, the findings showed that; those who are interested in professional education and training may not participate because of organizational issues such as workload pressures, attitudes towards engagement, and personal barriers such as time and family pressures (6).

A study in India done to assess the nurse attitude and barriers towards participation in continuing professional development programs reveals the main challenges highlighted by nurses were; staff shortages, lack of time due to heavy workload, lack of finances, night shift and lack of information on the availability of CPD. Key informants highlighted; lack of written policies for CPD, lack of available guidelines for CPD, lack of coordination with other CPD coordinators. The study recommends employing more nurses, formulating policies affecting CPD and providing financial support to help support CPD activities. Coordinators

should organize favorable time and space for CPD activities while ensuring equal opportunities are offered for participation and there is need for coordination with other CPD coordinators either at County level or at National level. There was no significant relationship found between the nurse's attitude towards the CPD programme and it was a barrier in participation towards continuing professional development (25).

Another study in south Africa, to assess attitude of nurses toward CPD showed that; shortage of staff, work overload, providing inappropriate scopes of nursing practice was preventing nurses to attend CPD activities (13)

A descriptive explorative study in Kenya on Perspectives of continuing professional development showed that; 40% of the participants agreed that lack of time was the main barrier factors for the engagement of CPD (8).

A study done in Western Kenya to investigate the challenges of nurses while participating in continuing professional development, the findings indicate that; difficulty in accessing programs, lack of organizational policy to promote, lack of organizational support; lack of finance , traveling of distances, non-supportive supervisors and lack of quality on CPD programs were a barrier for the CPD engagement (21).

A study done in Kisumu, Kenya, among nurses on perception of continuing professional development in a public health care facility. The findings showed that; factors from Personal, organizational, and professional were identified as barriers to engaged CPD. Advance preparation of nurses and use of recognized past experience personnel as resources of teaching strategies increased the nurses participation in CPD activities (15).

An institutional based study in China, among nurses about Continuing education, indicates; the factors that motivate participants to participate in CE are desired to gain and update their knowledge, to improve their practical skills and comprehensive qualities, to maintain professional status and to receive an academic degree. Factors that barriers to participation in CE included; time constraints, work commitments, a lack of opportunity, cost of the courses and previous negative experiences with CE programs (28).

2.5 Conceptual Framework

One commonly used model to describe the factors that influence engagement in continuing professional development (CPD) programs among healthcare practitioners is the "Three-Component Model of Commitment to Continuing Professional Development." This model, developed by Day and colleagues in 2001, consists of three main components: Attitudinal Commitment, Behavioral Commitment, and Environmental Support.

The conceptual framework for this research also includes three key components: socio-demographic factors, engagement of nurses in CPD programs, and barriers to participation in CPD programs. Socio-demographic factors encompass age, gender, marital status, educational qualification, and years of experience. Although some studies suggest that these factors do not significantly influence participation in CPD programs, it is still important to consider them as potential factors.

The engagement of nurses in CPD programs component includes the preferences and practices that nurses have in terms of engaging in CPD activities. Studies have shown that online activities, workshops, and skill training programs are among the most popular modes of engaging in CPD activities.

Barriers to participation in CPD programs include organizational, personal, and professional factors that hinder nurses from engaging in CPD activities. These barriers include workload pressures, lack of time, financial constraints, lack of information on the availability of CPD programs, difficulty in accessing programs, lack of organizational policy to promote CPD, and non-supportive supervisors.

The Attitudinal Commitment and Engagement of Nurses in CPD Programs components in the Three-Component Model are similar to the Engagement of Nurses in CPD Programs component in the conceptual framework. The Behavioral Commitment component in the Three-Component Model is related to the Barriers to Participation in CPD component in the conceptual framework. The Environmental Support component in the Three-Component Model is similar to the Socio-demographic Factors component in the conceptual framework.

These components interact with each other and influence engagement in CPD activities among nurses. Positive attitudes towards CPD programs and willingness to engage in CPD activities are influenced by preferences, practices, and modes of engagement in CPD activities, personal and professional barriers to participation, and the support received from

the workplace and colleagues. Engagement in CPD activities is also influenced by socio-demographic factors such as age, gender, marital status, educational qualification, and years of experience.

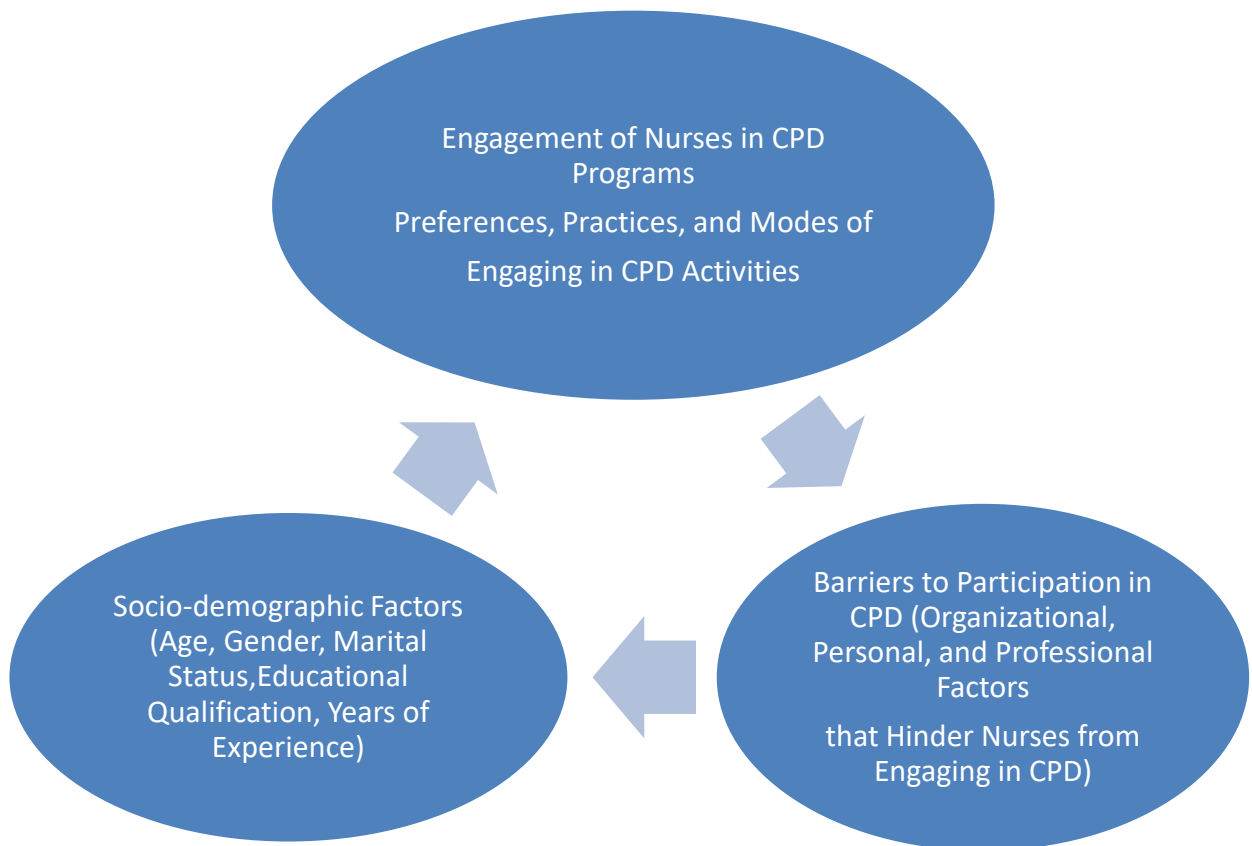


Figure 1: Conceptual framework for factors affecting engagement in continuing professional development (CPD) programs among nurses. Adapted from Day et al. (2001).

3. RESEARCH OBJECTIVES

3.1 General Objective

- To assess the level of engagement and factors affecting engagement in continuing professional development programs among nurses in healthcare settings of Addis Ababa, Ethiopia.

3.2 Specific Objectives

1. To assess the level of engagement of nurses in CPD activities, including their preferences and practices for engaging in CPD programs in selected health care settings of Addis Ababa, Ethiopia.
2. To identify the factors that influence nurses' engagement in CPD programs, including socio-demographic factors, preferences and practices, and barriers to participation in selected health care settings of Addis Ababa, Ethiopia.

4. METHOD AND MATERIAL

4.1 Study Area and Period

The study was conducted in Addis Ababa, the capital city of Ethiopia. Addis Ababa is the political capital, commercial and cultural center of Ethiopia. It is located at the heart of the nation, 9o2’N latitude and 38o45’E longitude. Averagely 2,400 meters above the sea level with the highest elevations at Entoto Hill to the north reaching 3,200 meters. Addis Ababa is one of the fastest growing cities in Africa and a primate city in Ethiopia with an estimated population of around seven million. As the diplomatic center of Africa, Addis Ababa hosts a number of international organizations, such as the headquarters of the African Union (AU) and the United Nations Economic Commission for Africa (UNECA) ([30](#)).

In Addis Ababa, there are 16 governmental hospitals from which six are governed under the federal Ministry of health ; six hospitals are under the Addis Ababa Regional Health Bureau, one Addis Ababa University, two under Ethiopian Federal Armed force & Federal police and one under non-governmental organization. Out of these governmental hospitals eight of them are accredited as a CPD training provider. The research was conducted in a selected, two governmental hospitals. Minilik II hospital and St. Peter Specialized Hospital were the selected health care settings from the list of eight accredited CPD training provider governmental hospitals by using simple random sampling method. The study was conducted from April 1 to April 30, in selected public hospitals, Addis Ababa, Ethiopia, 2022.

4.2. Study Design

A mixed study method, quantitative and qualitative cross-sectional study was employed; both methods were considered to triangulate the quantitative findings with that of the qualitative.

4.3 Quantitative methods

4.3.1 Study Population

4.3.1.1 Source population

All nurses working in Addis Ababa governmental hospital.

4.3.1.2 Study population

All nurses working at the randomly selected hospitals in Addis Ababa who fulfill the inclusion criteria of the study.

4.3.2 Eligibility Criteria

4.3.2.1 Inclusion criteria

All nurses working at hospital found in Addis Ababa and available at the time of data collection

4.3.2.2 Exclusion criteria

Those nurses who are on maternity leave, study leave, unpaid leave, on long medical leave and those working as voluntary nurses are excluded from the study.

4.3.3 Sampling

4.3.3.1 Sample size determination

The sample size was determined based on single population proportion formula with 0.05 level of significance, 5% marginal error (d) and 1.96 z-score at 95% CI, due to the absence of similar previous study on nurses' engagement on continuous professional development educational programs and barriers which impact the engagement in Addis Ababa Ethiopia, 50% of population proportion is used.

n = minimum sample size required for the study

Z = standard normal distribution with confidence interval of 95%, $Z=1.96$

p = Engagement of nurses on the practice of CPD from another research

We cannot find recent research done in Ethiopia related with this topic. So, we take the p-value 50%

d = Absolute precision or tolerable margin of error, d=0.05

$$n = \frac{(1.96)^2 \cdot 0.5(1-0.5)}{(0.05)^2} = \frac{(3.8416)(0.25)}{(0.0025)} = 384.16$$

Therefore **n=384**

Since the target populations are less than 10,000 the sample size was adjusted by using

Population correction formula of:
$$nf = \frac{ni}{1 + (\frac{ni}{N})} = \frac{384}{1 + (\frac{384}{685})} = 246$$

Where: nf =The desired sample size (when population was less than 10,000), ni = Initial sample size from single population formula, N= The estimate of the population size of health care settings

The sample size was increased by 10% to account for none respondent, a desired sample size was **271**.

4.3.3.2 Sampling technique

Non Probability purposive sampling method was used to select eight healthcare settings which were already accredited as a CPD training providers from the total governmental hospitals found in Addis Ababa. A simple random sampling method was used to select two health care settings where the study was conducted. The total number of nurses was collected from the human resource management of the hospital and AARHB. To determine the number of representative samples from selected hospitals, a proportional allocation formula was used for two hospitals. The study participants were selected by simple random sampling.

Table 1: Proportional allocation of the sample size

N	Name of the health care setting	Total No of nurses	No of	No of nurses based on the proportion
1.	Saint Peter's Hospital	300		124
2.	Minilik II hospital	358		147
	Total	658		271

4.3.4 Variable

4.3.4.1 Dependent Variable:

- Engagement on CPD programs

4.3.4.2 Independent variables

- Socio-demographic characteristics
- Barriers for CPD engagement
 - Personal factors
 - Organizational factors
 - System level factors

4.3.5 Definition of terms and Operational definition

Continuous Professional Development educational programs: It refers to both formal and informal teaching and learning activities which involves programs directed at building professional competence and confidence of healthcare professionals to perform their duties effectively. All forms of post basic professional and educational training of healthcare professionals are regarded as CPD ([11](#), [31](#)).

These activities consist of informal CPD activities which are less structured, but interactive learning or training activities such as in- service-training, short refresher courses, coaching of trainees, conferences, seminars and workshops and general reading. On the other hand, formal CPD involves teaching and lecturing, mentoring or being an examiner, acquiring postgraduate training or MSc or PhD degrees, conducting research, writing research papers and reviewing journal articles ([4](#), [11](#), [32](#)). In this study also all the activities mentioned in the above are considered as CPD educational program activities.

Engagement: described as the idea of being committed, dedicated, passionate, and having the perseverance to stay focused and involved ([33](#)). In this study engagement on CPD educational program activities refers to those who have participated in the above mentioned different CPD educational program activities within the past 12 months of duration.

Barriers: It refers to those personal, interpersonal, physical, attitudinal, work environment and structural aspects which prevent the nurse from engaging or completing continuing Education programme ([31](#)). In this research also, it refers to those personal, organizational and system level factors which prevent the nurse from engaging or participating on continuing professional development educational program activities.

Health care settings: is designed by the government to provide health care service for all the community members of countries ([15](#)). On this study also health care settings are

denoting health care providing institutions that are managed by the Ministry of Health of FDRE for the provision of health care services for all.

Nurse: In this study nurses are denoting those who have completed a formal training in nursing recognized school of nursing for 2 years and above (Diploma, BSc, and MSc, Ph.D.).

4.3.6 Data collection instruments

Data collection was conducted using self-administered standardized questionnaires. The instrument was adapted from a review of different literature ([10](#), [15](#), [34](#)), for the quantitative data and ([13](#)) qualitative part. The questionnaires were prepared in English.

4.3.7 Quality control

The quality of data is assured through a wise and carefully designed standardized questionnaire. A pretest was carried out among fourteen 5% nurses at Yekatit 12 Hospital before the actual data collection period. The content validity indexes were done among 7 experts; the result was 0.91. Three days of training were given to all the data collectors and supervisors. The data collection process was closely supervised, and the completeness of each questionnaire was checked, daily by supervisors and the principal investigator. Data cleaning and checking was employed to assured quality. Finally, double data entry was carried out to check the consistency of data.

4.3.8 Data collection method

The data was collected through a trained data collector. The questionnaire included all relevant variables to meet the objective of the study. It was administered to nurses working at selected public hospitals. The respondents were selected based on simple random sampling techniques from each hospital. Each questionnaire was checked for completeness by the assigned supervisor in each and every day of the data collection.

4.3.9 Data processing and analysis

Data were cleaned and entered into Epi data 3.1 versions and analyzed using SPSS 25.0 versions. Cross-tabulation was done in order to determine the sample characteristics. Descriptive statistics were used to describe characteristics and displayed using tables, figures, and text. Engagement on CPD was labeled as Yes (coded as 1) for engaged and no for unengaged (coded as 0). Chi-square used to determine association between the variables, significant at P-value <0.05. Logistic regression analysis was used to examine the factors associated with engagement of CPD. All variables with p-value <0.25 in the bi-

variable regression were added to the multivariable analysis. Association was described using an adjusted odds ratio (AOR) along with a 95% confidence interval (CI). Goodness-of-fit was checked by the Hosmer-Lemeshow test (>0.05). Finally, statistical significance was p -value <0.05 .

4.4. Qualitative approach

4.4.1. Study design

A qualitative approach, an exploratory, descriptive, study design was carried out which is aimed to investigate a deeper about nurses' engagement on CPD activities and the factors as a barrier.

4.4.2 Study Participant

The study participants were nine (9) nurses. They were selected from: ENA, nursing director of St. Peters specialized hospital and Menelik II hospital, NGO, MOH, AARHB. Their age ranges from 29- 42. The sample size was determined based on data saturation.

4.4.3 Sampling technique

The sampled nurses were selected from different health care settings such as; ENA, nursing director at St. Peters specialized hospital and Menelik II hospital, NGO, MOH, AARHB. In-depth individual interviews were conducted among nurses. A purposive sampling method was used to recruit. Data collection and sampling were continued until the data was saturated.

4.4.4. Eligibility criteria

4.4.4.1. Inclusion criteria

Nurses working at selected health care settings found in Addis Ababa and available at the time of data collection.

4.4.4.2 Exclusion criteria

Those who are not willing to participate were excluded from the study.

4.4.5. Data collection tools and procedure

The researcher and trained data collectors conducted face-to-face interviews with participants. The data collectors piloted the schedule of the interview to participants selected from the health care settings. The interview contained open-ended questions that

cover socio-demographic characteristics of participants, views towards engagement on CPD activities of nurses and its barriers to affect the engagements as well as their recommendation towards enhanced implementation. The interviews covered the central question, what are your views about engagement of nurses on CPD educational programs in Addis Ababa? How do you feel about the barriers for the engagement of nurses on CPD educational programs? What recommendations can you make to enhance the implementation of CPD?

The participants were selected based on their availability during data collection. Verbal consent was taken from participants', the assistant was recording audio of the interviews and the interviewer took notes during the interview to capture the original point of responses. The audio records were transcribed word by word and used as primary data. Face to face individual interviews were conducted in Amharic, in a comfortable environment where the participants feel safe. Then transcribed by the researcher and translated by experts. The session of audio-recorded interviews takes a range of 20-30 minutes.

4.4.6 Trustworthiness

Credibility: To check the credibility of qualitative research, member checking, peer review, and triangulation can be done.

In this research also data coding, analysis and interpretation were discussed throughout the research process with advisor and other researchers experienced in qualitative study.

Dependability: The findings were checked and verified by advisor and experienced researchers in order to examine the data. Audio records and data analysis processes are available for cross-checking.

Transferability: To check the transferability of qualitative research, a detailed description of the research context, participants, and data collection and analysis methods is explained on the methodological part of this research.

Conformability: This refers to the objectivity and neutrality of the research findings. To check, we use peer review and member checking. Peer review involves having other researchers review the research design, data collection, and analysis methods to ensure

objectivity. For member checking the research findings shared with participants to ensure neutrality.

4.4.7. Data analysis

For socio-demographic characteristics of the participants, descriptive statistics were used. A thematic analysis was used to analyze the data manually, with the following steps: Step 1: Verbatim transcription; the audio records were transcribed and translated verbatim by experienced experts from Amharic to English. Step 2: Coding and the data was categorized as an objective of study. Step 3: Generating the themes; the codes were checked for clarity and consistency, several codes were categorized into a single theme. Step 4: The themes revised. Step 5: The coded data interpreted and categorized, the themes were described, and the final were settled and defined as well. Step 6: Data analysis was conducted and also the findings reported.

4.5. Ethical Consideration

Ethical clearance is secured from Addis Ababa University, College of Health Science, School of Nursing and Midwifery institutional review committee and a written letter is obtained and then given to the selected study settings. Before enrolling any of the eligible study participants, the objective, benefits, and potential discomforts like time spent for the interview is discussed with each participant. Only those who are willing to take part in the study and give written consent freely are included in the study. Respondents' information is kept confidential and is not used for other purposes other than this study. Participants are informed that they have the right to temporarily stop or permanently withdraw from the study at any time when he /she wishes.

4.6. Dissemination of the result

Finding of this study will be presented and submitted to school of nursing and midwifery department of adult health nursing at Addis Ababa University, to Federal ministry of health, to Addis Ababa health bureau, to St. peter specialized hospital, to Menelik II hospital, to Ethiopian nursing association, and the attempts will be published in scientific journals.

5. RESULT

5.1. Result of quantitative study

5.1.1 Socio-demographic characteristics

A total of 271 nurses were included in the study with a response rate of (262) 96.67%. Of the total participants, 168 (64.1 %) were aged between 20 and 29 years old, with the median age of 28 years old. More than half 147 (56.1 %) were males. One hundred thirty six (51.9%) of participants were unmarried. One hundred eight (41.2%) of participants were reported to have earned monthly income between 4610 to 6192 ETB, with a Mean of 6871.03 ETB and a median of 7035.50ETB. One hundred thirty one (50.0%) of participants had experience of 5 to 10 years with a mean year of 5.64 and \pm 3.81 SD. Two hundred thirteen (81.3%) of participants were a bachelor of degree and two hundred fourteen (81.7%) were a comprehensive nursing (**Table: 2**).

Table 2: Socio-demographic characteristics of nurses at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n= 262)

Variable	Category	(n = 262)	
		Freq.	%
Age	Less than 20 years	2	0.8
	20 to 29 years	168	64.1
	30 to 39 years	88	33.6
	40 to 49 years	4	1.5
Sex	Male	147	56.1
	Female	115	43.9
Marital Status	Unmarried	136	51.9
	Married	126	48.1
Monthly income	Less than 4609 ETB	4	1.5
	4610 to 6192 ETB	108	41.2
	6193 to 8016 ETB	92	35.1
	8017 to 10149 ETB	56	21.4
	More than 10150 ETB	2	0.8
Year of experience	Less than 5 years	113	43.1
	5 to more than 5 years	149	56.9
	Certificate	2	0.8

Level of qualification	Diploma	8	3.1
	Bachelor degree	213	81.3
	Master degree	39	14.9
Area of specialization	General nursing	214	81.7
	Medical nursing	10	3.8
	Surgical nursing	2	0.8
	Pediatric nursing	6	2.3
	Maternal health	5	1.9
	Mental Health and Psychiatric Nursing	14	5.3
	Accidental and Emergency Nursing	2	0.8
	Critical Care Nursing	9	3.4

ETB (Ethiopian Birr)

5.1.2 Nurses understanding the concept of CPD

Of the total participants; One hundred seventy five (66.8%) were aware about CPD whereas 87 (33.2%) didn't have concepts about CPD. The finding showed significant differences ($X^2 = 59.4, p < 0.000$). From the participants 38.2% define CPD as learning activities after basic formal training, 33.2% define CPD as participation in workshops, seminars, conferences, journaling, research and formal training. This difference was not significant ($X^2 = 9.2, p > 0.057$). One hundred two (38.9%) of them also mentioned upgrading programs under CPD activity (**Table: 3**).

Table 3: Nurses understanding the concept of CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=262)

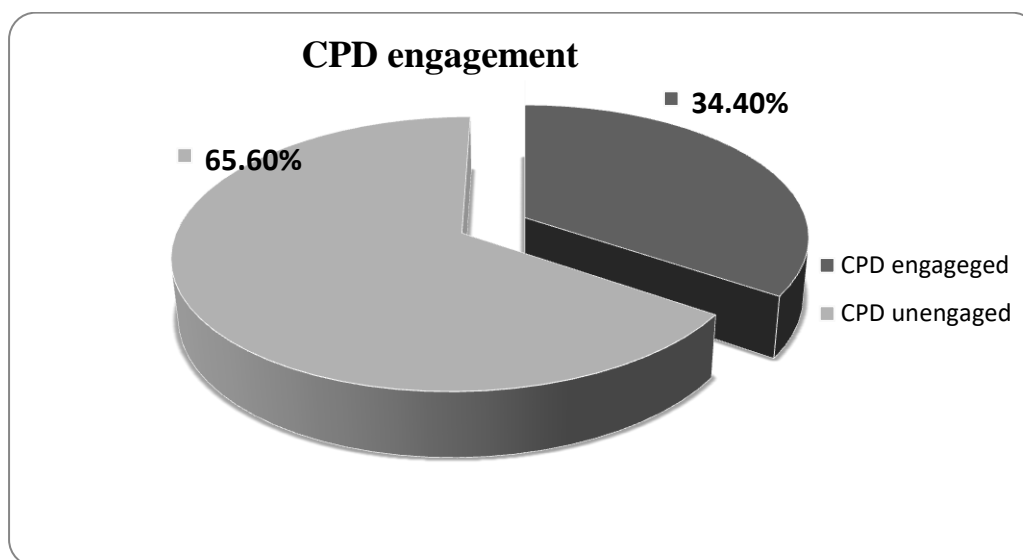
Variables	(n = 262)		X^2	P- value
	Freq.	%		
Concept about CPD				
Yes	175	66.8	59.4	0.000
No	87	33.2		
Definition for CPD				
Learning activities after basic formal training	100	38.2	9.2	0.057
Engaging in formal training after basic training only	42	16.0		
Participation in workshops, seminars, conferences, journaling and research only	33	12.6		
Participation in workshops, seminars, conferences, journaling, research and formal training	87	33.2		
Activity included under CPD				
Upgrading program	102	38.9	4.0	0.67

Workshops	45	17.2		
Seminars	43	16.4		
Research	7	2.7		
Journaling	12	4.6		
Scientific conferences	29	11.1		
Online courses	24	9.2		

CPD: Continues professional development. Significant at; $P < 0.05$

5.1.3 Engagement of CPD among nurses

Of the total participants; one hundred seventy two (65.6%) were did not engaged at least one CPD through their career. While, 90(34.4%) were participated on CPD activities. (Figure: 2)



CPD: Continuing professional development

Figure 2: Engagement of nurses on CPD at Addis Ababa selected public hospitals, Addis Ababa, Ethiopia. (n=262)

Of the CPD engaged participants: Forty seven (17.9%) were engaged in CPD activities less than 1 month ago, 21(8.0%) were engaged 1-2 years ago. Twenty six (28.9%) participants attended CPD for the reason of acquiring new developments in their specialty areas. Twenty two (24.4%) were attended to obtain an additional qualification, whereas 19 (21.1%) attended the activities only for re-licensure. Thirty (33.3%) of the CPD engaged nurses were attended on topics that was related to their specialties (Table: 4).

Table 4: Participation of nurses on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n=90)

Variables	(n = 90)	
	Freq.	%
The last participation on CPD		
Less than 1 month ago	47	52.3
1- 6 months ago	13	14.4
7-12 months ago	9	10
1-2 years ago	21	23.3
Reasons on participating CPD		
Only for re-licensure	19	21.1
To obtain additional qualification	22	24.4
For my career progression	4	4.5
To network with other nursing colleagues	5	5.5
To be updated with new developments in my specialty	26	28.9
To improve my curriculum vitae	6	6.6
To get a break from pressures of work	4	4.5
To be prepared to mentor new nurses and students	4	4.5
Does a CPD topic had relationship to your specialty		
Yes	60	66.7
No	30	33.3

CPD: Continuing professional development.

Of engaged nurses on CPD; 60 (66.7%) of the nurse attended topics on general clinical knowledge, 17(18.9%) were topics related to leadership and management. However, only 9 (10%) of them attended topics specific to the specialty unit of clinical contents.

Among total participants, the preference of nurse to engage CPD: A formal education such as; MSc, BSc, certificate was preferred to 53.1% of nurses. A non-formal education such as; reading journals, and in-service education programs were 11.8 %. However both formal and non-formal education preferred among 35.1 %. These differences were significant ($X^2 = 13.2, p < 0.001$). Furthermore, one hundred forty six (55.7%) of participants obtained additional nursing qualification through formal education whereas, 116 (44.3%) of them did not obtain. This difference was significant ($X^2 = 5.4, p < 0.020$) (**Table: 5**).

Table 5: Formal and non-formal engagement on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)

Variables	(n = 262)		X ²	P-value
	Freq.	%		
Preference of participants to engage CPD			13.2	0.001
Formal education (MSc, BSc, certificate, etc.)	139	53.1		
Non-formal education such as reading journals, in-service education programs	31	11.8		
Both of the above	92	35.1		
After obtaining nursing qualification, do you obtain additional nursing qualification through formal education			5.4	0.020
Yes	146	55.7		
No	116	44.3		

CPD: Continuing professional development. Significant at; P<0.05

Among a total of participants, an in-service education program for nurses; the hospital offered a program were 132 (50.4%). While, 130 (49.6%) of them did not participate in-service program. This difference was significant (X² = 23.6, p< 0.000). Moreover, regarding the frequency of in-service education by the hospital, 63% of the participants claimed as it was not provided at all, 24% of them said quarterly, 8% of them were weekly, 5 % of them were monthly. These differences were significant (X² = 39.2, p< 0.000) (**Table: 6**).

Table 6: Engagement an in-service education at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)

Variables	(n = 262)		X ²	P-value
	Freq.	%		
Does your hospital offer an in-service education program for nurses				
Yes	132	50.4	23.6	0.000
No	130	49.6		
Frequency of in- service education provided				
Not at all	165	63.0	39.2	0.000
Weekly	21	8.0		
Monthly	13	5.0		
Quarterly	63	24.0		

Significant at; P<0.05

Among unengaged respondents; the reasons on barrier from attending in-service education provided by hospital were 35.5% of them did not notifying for the program, 30.2 % were because of inadequate staff, 20.3% were due to lack of appropriate scheduled, 9.3% were discussed topic not relevant, and 4.7% were not motivated to trained(**Figure:3**).

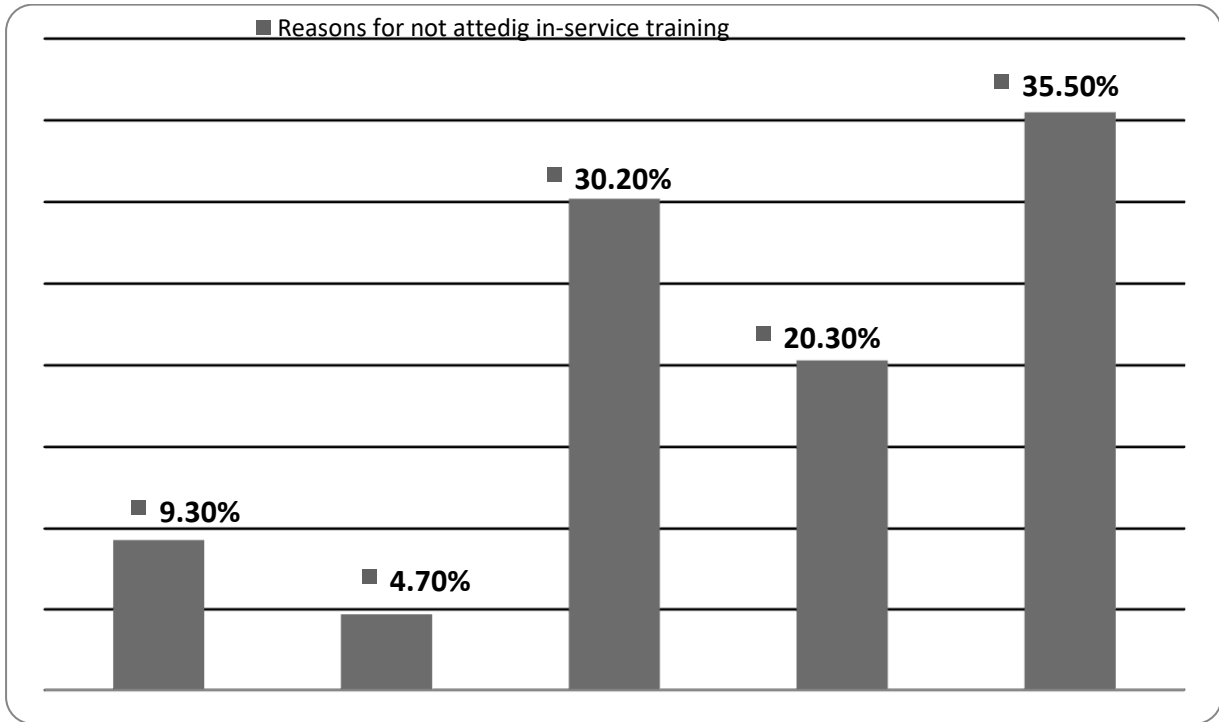


Figure 3: Reasons on barriers from attending in-service education provided by hospital at Addis Ababa selected public hospitals, Addis Ababa, Ethiopia. (n=171)

5.1.4 Factors affecting engagement of nurses on CPD

Of the total participants, factors affecting engagement of nurses on CPD: Lack of interest was 30.5% .While, 69.5% did not have lack of interest. These differences were significant ($X^2 = 8.76, p < 0.003$). Lack of time due to heavy workload were 37.8 %, those who had no lack of time were 62.2%. This difference was doing, not have a relationship ($X^2 = 0.00, p > 0.998$). Staff shortage had 22.5 %, no shortage of staff were 77.5%. This difference was not significant ($X^2 = 3.18, p > 0.074$). Lack of finance were 45.4%, those had not shortage of finance were 54.6%. These differences had significant ($X^2 = 6.66, p < 0.010$). Failure of administration to organize off duty was 42.4%, administration to organize off duty were 57.6%. This difference had not relationship ($X^2 = 0.08, p > 0.766$). Lack of information on available CPD sessions was 17.9%, while information on available CPD sessions was 82.1%. These differences were significant relationship ($X^2 = 9.01, p < 0.003$). Lack of time due to family commitments was 19.8%, those who had not were 80.2%. This difference had

a relationship ($X^2 = 10.34, p < 0.001$). Lack of role models at work was 40.5%, had a role models at work were 59.5%. This difference had significant ($X^2 = 12.63, p < 0.000$). Unavailability of interesting activities was 14.5%, whereas, availability of interesting activities was 85.5%. This difference had not significant ($X^2 = 0.15, p > 0.697$). Lack of encouragement was 16.4%, while encouragement had 83.6%. This difference had not significant ($X^2 = 2.80, p > 0.094$). An irrelevant topic covered was 11.8%, whereas the counterpart was 88.2%. This difference had not significant ($X^2 = 2.16, p > 0.142$). Lack of CPD activities was 21.4%, while availability of CPD activities was 78.6%. This difference had significant ($X^2 = 13.93, p < 0.000$).

In order to identify the extent of factors affecting the engagement of nurses on CPD, a binary logistic regression model was used. Variables that had a p-value < 0.25 on bivariate analysis; lack of interest, lack of time due to heavy workload, lack of finance, failure of administration to organize off duty, lack of information on available CPD sessions, lack of time due to family commitments, lack of role models at work, lack of encouragement, and lack of CPD resources, had checked. In the multivariable logistic regression, only lack of finance, lack of information on available CPD sessions, lack of time due to family commitments, and lack of CPD resources, remained statistically significant with engagement on CPD.

The odds of engaged nurses on CPD were 3 [AOR=3.10, 95% CI (1.28- 7.52)] times higher among nurses on lack of finance compared to those who had not. In addition, nurses with lack of information on available CPD sessions were 0.3[AOR=0.30, 95% CI (0.12 – 0.76)] times higher odds of having engaged on CPD to those counterparts. Moreover, nurses on lack of time due to family commitments were 3.3 [AOR=3.35, 95% CI (1.08 - 10.34)] times more likely engaged on CPD compared to those nurses who had not. The odds of engaged nurses on CPD were 0.15 [AOR=0.15, 95% CI (0.03 – 0.742)] times higher among nurses on lack of CPD resources activities compared to those who had not (**Table: 7**).

Table 7: Bi-variable and Multivariable logistic regression on factors affecting the engagement of nurses on CPD at Addis Ababa selected public hospital, Addis Ababa, Ethiopia. (n = 262)

Factors	CPD		COR (95% CI)	AOR (95% CI)	P- value
	Engage	Unengaged			
Lack of interest					
Yes	73	109	2.48(1.34 - 4.57)	0.79 (0.15 -3.99)	0.776
No	17	63	1	1	
Lack of time due to heavy workload					
Yes	56	107	1.0(0.59- 1.69)	1.11 (0.48 - 2.56)	0.80
No	34	65	1	1	
Lack of finance					
Yes	59	84	1.99(1.17– 3.37)	3.10 (1.28- 7.52)	0.012
No	31	88	1	1	
Failure of administration to organize off duty					
Yes	53	98	1.08 (0.64 – 1.81)	0.63 (0.14 -2.70)	0.534
No	37	74	1	1	
Lack of information on available CPD sessions					
Yes	25	22	0.38 (0.20 - 0.72)	0.30 (0.12 – 0.76)	0.011
No	65	150	1	1	
Lack of time due to family commitments					
Yes	82	128	3.52(1.57 - 7.86)	3.35 (1.08 - 10.34)	0.035
No	8	44	1	1	
Lack of role models at work					
Yes	67	89	2.71 (1.55 – 4.75)	1.5 (0.70 – 3.21)	0.285
No	23	83	1	1	
Lack of encouragement					
Yes	80	139	1.89 (0.88 – 4.05)	0.56 (0.15- 2.04)	0.384
No	10	33	1	1	
Lack of CPD resources					
Yes	31	25	0.32(0.17 – 0.59)	0.15(0.03 – 0.742)	0.019
No	59	147	1	1	

CPD: Continuing professional development. Significant at; P<0.05

5.2 Result of qualitative Study

5.2.1 Socio demographic characteristics of participants

A total of nine health care setting workers were recruited for the qualitative research. The mean age of employees was 36.55 ± 1.96 SD ranging from 29-42 years. The qualification of participants; 7 were MSc, and two were PhD candidates. Regarding their working sectors, participants from MOH were 2, AARHB were 2, NGO were 2, hospital nursing directors were 2, and one participant from ENA (**table:8**).

Table 8: *The socio-demographic characteristics of participants in the in-depth interview about engagement on continuing professional development education programs and barriers among nurses at health care settings in Addis Ababa, Ethiopia. (n=9)*

Participant codes	Age	Qualification	Working sector
Participant 1	39	Master of science	Ministry of health
Participant 2	30	Master of science	Ministry of health
Participant 3	35	Master of science	Addis Ababa regional health bureau
Participant 4	29	Master of science	Addis Ababa regional health bureau
Participant 5	42	PhD candidates	Ethiopian nursing association
Participant 6	40	Master of science	Non-governmental organization
Participant 7	39	PhD candidates	Non-governmental organization
Participant 8	35	Master of science	Hospital nursing director
Participant 9	40	Master of science	Hospital nursing director

PhD: Philosophy of Doctor.

5.2.2 Themes

After coding the in-depth interview about engagement on continuing professional development education programs and barriers among nurses, the themes were categorized into main four themes, with subclasses (**table: 9**).

Table 9: *Themes of coding the in-depth interview about engagement on continuing professional development education programs and barriers among nurses at health care settings in Addis Ababa, Ethiopia. (n=9)*

Themes	Categories
Engagement of nurses on CPD activities : their views	Very low, engagement of nurses on CPD
	Good, engagement of nurses on CPD
	Nurse reasons to engaged CPD
	CPD administrator related views to govern and track focused training for nurses
Engagement of nurses on CPD activities:	Unwillingness to pay fee for CPD activities

Financial related concept	Unavailability of organization to supporting within finance to address CPD activities for nurses
	Working us collaboration among respected stakeholders in order to solve the financial challenges
Engagement of nurses on CPD activities: Means of participation	Mechanisms, to facilitate engagement of nurse on CPD activities
	Methods of attending CPD training: online, face to face, and in services training
Engagement of nurses on CPD activities: Barriers related concept	Attitude of nurse as a barriers for engagement of CPD activities
	Limited availability of CPD activities were barrier for engagement

CPD: Continuing professional development

Theme I: Engagement of nurses on CPD activities: their views

Views of participants towards engagement of nurses on CPD were the first theme that was identified by coding of the in-depth interview data. Within this main theme, four subclasses were identified.

Engagement of nurses on CPD activities: Very low

According to study participant's 22 % of them expressed a view that engagement of nurses was very low especially before the commencement of CPD activities.

PA1: *"....But, compared to the number of health professionals and the dispersion of the health personnel throughout the country, their participation was not enough...."*

PA 2: *"...Before the implementation of mandatory CPD, it seemed as if it would not be implemented at all....."*

Engagement of nurses on CPD activities: Good

11% of participants believed that there was a good engagement of nurses on CPD before the initiation of CPD implementation.

PA 8: *"...Because our institution has a training center, there was a very big opportunity for all the staff to take training. A lot of training has been provided for the nurses..."*

Engagement of nurses on CPD activities: Reasons

Findings from the interviewers showed that 22 % of nurses previously participated in training only to get incentives; however, currently they are engaging on CPD for updating their knowledge and also for renewal of their license.

PA5: "...Previously nurses were involved in training only to get the incentives but, currently the health professionals start engaging in training which does not have an incentive for them. Especially when we see the data we get from ENA, there is a big difference in the engagement of nurses after the commencement of mandatory CPD...."

PA6: "....Previously nurses were not happy when the training was prepared in Addis Ababa by just considering the amount of money they get. They were only interested when the training was prepared outside of Addis Ababa as they would get more incentive. But after the implementation of the CPD program, the nurses started asking the nursing directorate to facilitate training for them. They start using the training to renew their license and to update their knowledge....."

Disorganized CPD program unable to focused training on nursing practice area

Participants thought that; uncontrolled, disorganized, and lack of ownership on CPD activities. As a result, the given training is not focused on the nursing practice area.

PA7: "....CPD programs were uncontrolled, disorganized, without ownership and just the nurses engaged when they got a chance even if it is not related with their practice....."

Themes II: Engagement of nurses on CPD activities: Financial related concept

Participants' expression about financial related concepts towards engagement of nurses on CPD activities were the second themes that were identified by coding of the in-depth interview data. Within this main theme, three subclasses were identified.

Unwillingness to paid fee for CPD activities

Studies participants expressed their views regarding professional payment of CPD activities, most of those nurses are not willing to pay for CPD activities.

PA 4: "....Health professionals were not willing to pay for their own training..."

PA5: "....Currently paid training is expensive for most health professionals....."

Unavailability of organizations to support a finance to address CPD activities for nurses

Some of the participants mentioned that unavailability of financial support is the main challenge to provide training at the cost of their institution.

PA6: “....*There is no financial support from any other partner organization....*”

Some participants mentioned that a limited organization was providing support. PA 8: “....*There is no financial or technical support from any organizations except the ENA....*”

Working us collaboration among respected stakeholders in order to solve the financial challenges

To solve this financial problem, some of the institutions are working with different supporting partners.

PA 8: “....*To solve this problem, currently we are working in collaboration with ENA and give the opportunity for the nurses to get online training and certification from there....*”

Themes III: Engagement of nurses on CPD activities: Means of participations

Findings from participants’ about means of participation related to the engagement of nurses on CPD activities were the third themes that have been identified by coding of the in-depth interview data. Within this main theme, two sub classes were identified.

Mechanisms, to facilitate engagement of nurse on CPD activities

The participants stated that; there are different mechanisms to facilitate the engagement of nurses on CPD such as; attend online training using software application, and provide face to face training with affordable cost for ENA members.

PA7: “....*By using the budget from our partner organization WACA, by using mobile applications we are providing online training for almost all health professionals and mainly for nurses. Currently more than 1000 individuals use the application per month and starting from the beginning around 60,000 individuals try the application and then out of them around 20,000 health professionals complete their training successfully and take their certification from that software. For members of ENA also we provide face to face training with a very small amount of cost....*”

Methods of attending CPD training: online, face to face, and in services training

A finding from participants also shows two ways of training; one is face to face and online training on which provision of certificate on the completion is done. Secondly, in-services training most of them do not have certificates on completion. The MoH is preparing in-services training to address CPD activities. However, the health professions are not considered as CPD. This finding was noticeable in the following participant:

PA2: “....CPD is provided in two ways; one as a category 1: face to face training and online training is incorporated on which certificate is provided after the completion of the training. The other category 2: a day to day activity of the health professional in his working setup which can maintain & develop the knowledge of them continuously. Because category 2 has no certification, most health professionals don't consider it as a CPD activity. However, currently MoH is focusing on category 2 as implementation guideline....”

Some of the respondents indicated that, thinking CPD training is only face to face and online training. They are not familiar with other kinds of CPD activities. Sample responses encompass:

PA5: “.....Most health professionals only think about the modality of face-to-face training and online training. They are not familiar with other kinds of CPD activities like engagement on research work, participation in conferences, seminars, and meetings.....”

Findings from other participants show that there is an organization emphasizing in-service education programs.

PA7: “....We are also in provision of on-site training for nurses by traveling to their own working area....”

In addition, other participants stated that there was in-service training facilitated; independently by the nursing director of the organization, and also collaboration with other organizations such as; ENA. Noticed as follow:

PA8: “....We have a CPD facilitating committee under the Nursing directorate which is called Capacity building Committee. So, this committee works on the capacity building through different mechanisms: Formal training, peer training on case team, nursing round,

grand nursing round which we started recently and with collaboration with ENA, provide online training”

Themes IV: Engagement of nurses on CPD activities: their barriers

Participants’ stated, barriers concept towards engagement of nurses on CPD activities were the fourth themes that have been identified by coding of the in-depth interview data. Within this main theme, two sub classes were identified.

Attitude of nurse as barriers for engagement of CPD activities

The findings revealed that, some participants noticed that the attitude of nurses were the main barrier of engagement on CPD activities, including; need enforcement to engage, do not like to be regulated, they are complaining about it, and they don’t think CPD is important for self.

PA6: “...*Attitude of the health professionals is the challenging problem. Everybody doesn’t like to be regulated and they just want to be free as it was previously. They were not willing to engage in it if the enforcement was not introduced....”*

PA9: “....*There was a very big misunderstanding of the health professionals. Previously health professionals don’t think CPD is important for them and they don’t want to engage. When it became even mandatory, a lot of nurses were complaining about it, and they were unhappy”*

Limited availability of CPD activities as barriers for engagement

Availability of CPD activities for the professionals is also another barrier raised from the participants. There is a big gap between the number of CPD providers and number of health professionals.

PA1: “...*There is a big access problem, not accessible equally for all health professionals found in different parts of the country. There are 115 CPD providers and 35 accreditors all over the country until the collection of this data. But most of them are found in and nearby Addis Ababa. This indicates that there is a big problem with the geographical coverage of CPD. The number of this CPD provider is also non proportional with the number of health professionals....”*

In addition, some participants stated, lack of infrastructure such as; no good internet, it is a major issue that halted the coverage.

PA2: “...*The shortage of the coverage of access to provide CPD. Especially for those health professionals outside Addis Ababa, the internet and other infrastructure is a big problem. CPD provider coverage and the available providers are not strong as it is expected from them. They are not involved actively....*”

Furthermore, some participants revealed, not enough access to handling a large number of nurses on face to face or online training. The respondent noticed as follow:

PA7: “.....*Access is the main challenge. If all the nurses’ start engaging in CPD practices particularly face-to face and online training. We don’t have enough access to accept all of them...*”

Create other means of training to address all. PA7: “....*Beside the face-to face and online training, we should have to create an access for workshops, conferences and different professional meetings which can create an environment for the nurses to interact and share their experiences....*”

6 DISCUSSION

Continuous professional development (CPD) programs designate to verify the competence of health care workers (1-3). Quality of healthcare becoming the major concern globally, evidence suggests that; unsafe and poor quality of health care resulted in morbidity and mortality. However, most of those problems were avoidable (11, 17). Continuous Professional Development Education is a crucial mechanism to maximize competence for best practice (2, 11, 19). This study was conducted to assess engagement on continuing professional development education programs and barriers among nurses in a selected health care setting, Addis Ababa, Ethiopia.

This study found that; the engagement preference of participants, obtaining of additional nursing qualification through formal education, and in-service training are significant associations towards engagement of CPD. Whereas, lack of interest, finance, information on availability of CPD sessions, time due to family commitments, role of models, and Lack of CPD resources or activities showed significant association with barriers for engagement on CPD.

This study found that the age of participants' had a significant relationship with nurses' engagement in CPD. This is inconsistent with the study conducted in South Florida, USA (23). This might be due to the study population, settings, period, and sample size being different in previous study (23). Similarly, studies done in Iran do not support the relationships of age with the CPD engagement. This might be different in study population, setting, and period (24). And study done in Kenya, also is not consistent. This might be because the previous study had different study areas, period, and sample size (15).

This finding showed that, level of qualification had a positive association with nurses in CPD engagement. This study is not supported by studies done in Iran. This might be different in study population, setting, and period (24). Similarly, a study done in Kenya does not support this. This might be because the previous study had different study areas, period, and sample size (15).

This study found that thirty four percent of nurses engaged in CPD. The finding of this study is not supported by studies done; in Kenya (8) (15), In Nigeria (2), and in Malaysia (4). This might be as a result of different study area, period, sample size, and study population of the previous study.

The finding of this study showed that more than half participants obtained additional nursing qualification through formal education. This finding is inconsistent with study done in developing countries. This could be the difference in study setting, sample size, and period of the previous study (7).

This study found that fifty percent of nurses were preferred in-services training. This finding is in line with study done in Kenya (8)

This finding showed that lack of time due to family commitments is a barrier to engagement of CPD. This finding is in line with study done in Australia (6).

This finding showed that lack of finance is a barrier to engagement of CPD. This finding is in line with studies done in India (25), in Kenya (21).

This finding showed that lack of information on available CPD sessions is a barrier to engagement of CPD. This finding is consistent with study done in India (25).

This finding showed that a nurse's attitude is a barrier toward a CPD engagement. This finding is not supported with study done in India (25).

7. CONCLUSION

This study found that; the engagement preference of participants, obtaining of additional nursing qualification through formal education, and in-service training are significant associations towards engagement of CPD. Whereas, lack of interest, finance, information on availability of CPD sessions, time due to family commitments, role of models, and Lack of CPD resources or activities are significant association to barriers engagement of CPD.

8. RECOMMENDATION

To St. Peter specialized hospital and Minilik II General hospital:

To recommend the hospital administrators to focus on CPD activities in order to update the professions and would organize the training to nurses in their specialty area. As well as work with other stakeholders to address all scopes, and maintain the consistency of training.

To Federal Ministry of health, Ethiopian nursing association, and other stakeholders:

Our recommendations also to FMOH, ENA and others is to develop action plan and implementation, focusing on nurses CPD activities by considering their specialty area. They have to work with other stakeholders to reduce the modified factors of barriers on engagements toward CPD activities.

To researcher;

To address the private health sectors based study on their CPD engagement and barriers, this could be the opportunities for improvement of nurse's skill, and competency.

To education and training;

Regularly, to updating the new skills for nurses

9. LIMITATION

The limitations of this study include; first, in order to review a local literature, there is a few available data in our setting area. Secondly, this is an institutional study in the public health care setting focusing on engagement of nurses towards CPD; however it may not be generalizable to private health care's population.

10. REFERENCE

1. Feldacker C, Pintye J, Jacob S, Chung MH, Middleton L, Iliffe J, et al. Continuing professional development for medical, nursing, and midwifery cadres in Malawi, Tanzania and South Africa: A qualitative evaluation. *PloS one*. 2017;12(10):e0186074.
2. Nsemo AD, John ME, Etifit RE, Mgbekem MA, Oyira EJ. Clinical nurses' perception of continuing professional education as a tool for quality service delivery in public hospitals Calabar, Cross River State, Nigeria. *Nurse education in practice*. 2013;13(4):328-34.
3. WHO. Transforming and scaling up health professionals' education and training: World Health Organization guidelines 2013: World Health Organization; 2013.
4. Chong MC, Francis K, Cooper S, Abdullah KL. Current continuing professional education practice among Malaysian nurses. *Nursing Research and Practice*. 2014;2014.
5. Sharma Pant S, Poudel Panthi L. Continuous Professional Development in Healthcare: Lifelong learning for nurses in the workplace. 2018.
6. Katsikitis M, McAllister M, Sharman R, Raith L, Faithfull-Byrne A, Priaulx R. Continuing professional development in nursing in Australia: Current awareness, practice and future directions. *Contemporary Nurse*. 2013;45(1):33-45.
7. Giri K, Frankel N, Tulenko K, Puckett A, Bailey R, Ross H. Keeping up to date: continuing professional development for health workers in developing countries. *IntraHealth International*. 2012.
8. Gitonga L, Muriuki NS. Perspectives of continuing professional development (CPD) for Kenyan midwives. *Open Journal of Clinical Diagnostics*. 2014;2014.
9. Organization WH. The world health report 2000: health systems: improving performance: World Health Organization; 2000.
10. Owaka ED. The perceived effect of continuing professional development on individual performance of professional nurses in ministry of health owned facilities in Nairobi city county, Kenya: University of Nairobi; 2014.
11. Nwogbe OA, Haliso Y. Continuing Professional Development Assessment of Healthcare Professionals in Public Secondary Hospitals in Lagos State, Nigeria.

- Information Impact: Journal of Information and Knowledge Management. 2020;11(1):26-39.
12. Viljoen M, Coetzee I, Heyns T. Critical care nurses' reasons for poor attendance at a continuous professional development program. *American Journal of Critical Care*. 2017;26(1):70-6.
 13. Mnguni MA. Continuing professional development in South Africa: perceptions and attitudes of nurses and midwives 2019.
 14. Govranos M, Newton JM. Exploring ward nurses' perceptions of continuing education in clinical settings. *Nurse Education Today*. 2014;34(4):655-60.
 15. Onyango DA. Nurses' perception of continuing professional development in a public health care facility in Kisumu, Kenya 2012.
 16. Cheesman SD. The "connection" between continuing education and quality. *The Journal of Continuing Education in Nursing*. 2009;40(8):340-1.
 17. WHO. Patient safety: making health care safer. Geneva: World Health Organization; 2017.
 18. Arinze-Onyia S, Ndu A, Aguwa E, Modebe I, Nwamoh U. Knowledge and practice of standard precautions by health-care workers in a tertiary health institution in Enugu, Nigeria. *Nigerian journal of clinical practice*. 2018;21(2):149-55.
 19. Badu-Nyarko SK. Survey of continuing professional education of nurses in Ghana. *International Journal of Educational Studies*. 2015;2(2):71-81.
 20. Kasine Y, Babenko-Mould Y, Regan S. Translating continuing professional development education to nursing practice in Rwanda: Enhancing maternal and newborn health. *International journal of Africa nursing sciences*. 2018;8:75-81.
 21. Mosol P, Kei R, Obwoye RO, Ng'eno A. Challenges facing nurses while participating in continuing professional development: A case of Western Kenya. 2017.
 22. Chong MC, Sellick K, Francis K, Abdullah KL. What influences Malaysian nurses to participate in continuing professional education activities? *Asian Nursing Research*. 2011;5(1):38-47.
 23. Armistead LD, Castillo JM, Curtis MJ, Chappel A, Cunningham J. SCHOOL psychologists' continuing professional development preferences and practices. *psychology in the schools*. 2013;50(4):415-32.

24. Khademi E, Abdi M, Saeidi M, Piri S, Mohammadian R. Emotional intelligence and quality of nursing care: A need for continuous professional development. *Iranian Journal of Nursing and Midwifery Research*. 2021;26(4):361.
25. Pillay D. The assessment of the continuing professional development of nurses at a selected public hospital in KwaZulu-Natal 2017.
26. Ross K, Barr J, Stevens J. Mandatory continuing professional development requirements: what does this mean for Australian nurses. *BMC nursing*. 2013;12(1):1-7.
27. Ng YIJ. 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. 2017.
28. Ni C, Hua Y, Shao P, Wallen GR, Xu S, Li L. Continuing education among Chinese nurses: A general hospital-based study. *Nurse education today*. 2014;34(4):592-7.
29. Macaden L, Washington M, Smith A, Thooya V, Selvam SP, George N, et al. Continuing professional development: Needs, facilitators and barriers of registered nurses in India in rural and remote settings: Findings from a cross sectional survey. *Open Journal of Nursing*. 2017;7(8).
30. Abnet Gezahegn Berhe DBE, Imam Mahmoud Hassen TLM, Soressa YA. Addis Ababa City Profile. Ethiopian Institute of Architecture Building Construction and City Development - EiABC; 2017 January 2022.
31. Das M, Devi B, Roy S. Yourika T. Attitude and barriers towards participation in continuing professional development programme among nurses". *International Journal of*. August, 2019
32. Younes NA, AbuAlRub R, Alshraideh H, Abu-Helalah MA, Alhamss S. Engagement of Jordanian physicians in continuous professional development: current practices, motivation, and barriers. *International journal of general medicine*. 2019;12:475.
33. Schaufeli WB. What is engagement? *Employee engagement in theory and practice*: Routledge; 2013. p. 29-49.
34. Davids JM. *Continuing professional development in nursing*: Stellenbosch: Stellenbosch University; 2006.
35. Day, C., Elliot, B., & Kozub, E. (2001). The Three-Component Model of Commitment to Continuing Professional Development. *Journal of Vocational Behavior*, 59(2), 337-349. <https://doi.org/10.1006/jvbe.2001.1809>

ANNEX A: Subject Information Sheet

Title of the Research: Engagement on continuing professional development education programs and its barriers among nurses in a selected health care setting of Addis Ababa, Ethiopia.

Name of the Organization: Addis Ababa University, College of health science, School of Nursing and Midwifery, department of Nursing.

Purpose of the Research Project: To investigate engagement on continuing professional development programs and its barriers among nurses in a selected health care setting of Addis Ababa, Ethiopia.,

Procedure: To achieve the above objectives, information that is needed for the study will be taken from nurses working in a selected health care setting of Addis Ababa.

Risk and discomfort: The study will not inflict any harm to the participant nurse. The name or any other identifying information will not be documented on the questionnaire and all information received from the participants will be kept strictly confidential. The information retrieved will only be used for the study purpose.

Benefits: There is no direct benefit for study participants from this study. However, the study has indirect benefit for the participants. This is because the findings of this study will help to identify the gap and take the appropriate intervention by the authorized stakeholder.

Confidentiality: To reassure confidentiality the data will be collected anonymously and the information collected from this research will be kept confidential. In addition, it will not be exposed to a third party except the principal investigator and advisor.

Person to contact: This research project will be reviewed and approved by the institutional review board of the College of Health Science, School of Nursing and Midwifery, Addis Ababa University.

If you have any questions, you can contact any of the following individuals.

1. Meaza Wehabe(principal investigator): (BSc in Nursing)

Telephone: 09 24 34 46 14

Email: meaziw1996@gmail.com

2. Tigistu Gebreyohannis (BSc, MSN, Asst. Prof): Addis Ababa University, college of health sciences, school of nursing and midwifery. (Main Advisor)

Tel: 0939125455

E-mail: tgebreyohannis@yahoo.com

3. Ketema Bizuwork (MSC, Lecturer) Addis Ababa University, college of health sciences, school of nursing and midwifery. (Co-Advisor)

Tel: 0911884270

E-mail: ketema2005@yahoo.com

ANNEX B: Consent Form

I am a 2nd year MSc Adult Health Nursing student at Addis Ababa University and currently working on my thesis titled “Engagement with continuing professional development programs and its barriers among nurses in a selected health care setting of Addis Ababa, Ethiopia”. The objective of the study is to investigate engagement on continuing professional development programs and its barriers. As the study is directly related to nurses working in Addis Ababa Health care settings, you are one of the nurses who are selected to participate in this study, therefore you are kindly requested to participate in this study and provide the information required from you.

The interviewer is going to ask you some questions that are not difficult to answer. Your name will not be written in this format and never be used in connection with any of the information you are going to tell them. You are not obliged to answer any question that you do not want to answer and you may end this interview at any time you want to. However, your honest answers to these questions will help us not only for the successful accomplishment of the study but also for producing relevant information which will be helpful in improving the continuous professional development educational program engagement of nurses in future. We would appreciate your help in responding to these questions, and it will take Hardly 30 minutes.

Are you willing to participate in the study? A. Yes ____ B. No ____

Questionnaire number _____ Date _____

Name of data collector _____

Signature _____

SECTION A: DEMOGRAPHIC INFORMATION

A1. What is your age in years? _____

A2. Your gender 0. Male 1. Female

A3. Your marital status

0. Single 1. Married 2. Divorced/Separated 3. Widowed

A4. Your religion

0. Orthodox 1. Muslim 2. Catholic 3. Protestant 4. Other (Specify)

A5. How long have you been practice nursing (in years)? _____

A6. What is your highest completed level of nursing qualification?

	Answer
Certificate	1
Diploma	2
Undergraduate degree	3
Master’s degree	4
Other, (please specify)	5

A7. Indicate your area of specialization

	Answer
General nursing	1
Medical nursing	2
Surgical nursing	3
Pediatric nursing	4
Maternal health	5
Neonatal nursing	6
Mental Health and Psychiatric Nursing	7
Accident and Emergency Nursing	8
Critical Care Nursing	9
Other (Specify) ----- -----	10

A8. In which area of specialization does your ward/unit fall?

	Answer
General nursing	1
Medical nursing	2
Surgical nursing	3
Pediatric nursing	4

Maternal health	5
Neonatal nursing	6
Mental Health and Psychiatric Nursing	7
Accident and Emergency Nursing	8
Critical Care Nursing	9
Other (Specify) ----- -----	10

A9. How much is your monthly income (in Ethiopian Birr)? _____

SECTION B: ENGAGEMENT ON CONTINUING PROFESSIONAL DEVELOPMENT

B1. Before receiving this questionnaire were you aware of the concept CPD.

Answer: 1. Yes 2. No

B2. Indicate your definition of continuing professional development

	Answer
Learning activities after basic formal training	1
Engaging in formal training after basic training only	2
Participation in workshops, seminars, conferences, journaling and research only	3
Participation in workshops, seminars, conferences, journaling, research and formal training	4
Other (Specify)	5

B3. Which one do you think can be included under CPD activities (more than one answer can be provided)

	Answer
Upgrading program	1
Workshops	2
Seminars	3
Research	4
Journaling	5
Scientific conferences	6
Online courses	7
Other (Specify) ----- -----	8

B4. Do you participate in CPD?

Answer: 1. Yes 2. No

(If “Yes” to question B4 go to question B5, if “No” to question B4 go to question B13)

B5. If yes to question B4, when did you last participate in a continuing professional development activity?

	Answer
Less than 1 month ago	1
1- 6 months ago	2
7-12 months ago	3
1-2 years ago	4
More than 2 years ago	5

B6. Indicate your reasons for participating in CPD

	Answer
Only for re-licensure	1
To obtain additional qualification	2
For my career progression	3
To network with other nursing colleagues	4
To be updated with new developments in my specialty	5
To improve my curriculum vitae	6
To get a break from pressures of work	7
To be prepared to mentor new nurses and students	8
Motivated to learn	
To improve my confidence	
Other (Specify) ----- -----	9

B7. What was the topic of the last CPD attended by you?

	Answer
General clinical knowledge and skills	1
Unit specialty clinical content	2
leadership and management	3
Quality assurance	4
Other	5

B8. Indicate if the topic is related to your current specialty/area of practice?

Answer: 1. Yes 2. No

B9. Who sponsored the last CPD session attended by you?

	Answer
The hospital	1
The training agency	2
Self	3
Other (Specify)	4

B10. Which format would you prefer to receive CPD activities?

Formal e.g., education leading to a qualification (e.g., Masters, degree, certificate, etc.)	1
Non-formal e.g., Education not for qualification, obtained by methods such as reading journals, in-service education programs	2
Both of the above	3

SECTION C: ENGAGEMENT ON FORMAL and NON-FORMAL EDUCATION

C1. After obtaining your basic qualification, have you studied and obtained an additional nursing professional qualifications through formal education?

Answer: 1. Yes 2. No

C2. Are you a member of a professional nursing association/society?

Answer: 1. Yes 2. No

C3. Do you attend the meetings or workshops offered by the professional association?

Answer: 1. Yes 2. No

C4. Have you attended any nursing workshops, conferences or seminars in the last two years?

Answer: 1. Yes 2. No

If your answer is “No” to question C3 and C4 go to question C5. If your answer is “Yes” go to question C6.

C5. The reasons that prevented you from attending a nursing conference or workshop. Please mark a response on each question.

	Answer
Financial and accommodation constraints	1
Family responsibilities	2
Unable to obtain study leave	3
Topic not relevant to my learning needs	4
Lack of notification of the conference or workshop	5
Other (Specify)	6

C6. Have you published an article in the past two years?

Answer: 1. Yes 2. No

SECTION D: ENGAGEMENT ON IN-SERVICE EDUCATION

In-service education in the following questions refers to education that is offered by the employer to their employees during normal working hours.

D1. Does your hospital offer an in-service education program for nurses?

Answer: 1. Yes 2. No

D2. How frequently is in- service education provided?

Answer: 1. Not at all 2. Weekly 3. Monthly 4. Quarterly

D3. When is in-service education scheduled?

Day duty: 1. Yes 2. No

Night duty: 1. Yes 2. No

Day and night duty: 1. Yes 2. No

D4. Do you attend the in-service education programs?

Answer: 1. Yes 2. No

If your answer is “No” go to question D5. If your answer is “Yes” please go to question D6.

D5. Reasons that prevent you from attending the in-service education program? Please mark a response on each question.

	Answer
Topic discussed not relevant	1
Not motivated to learn	2
Short staff	3
Date and time that it is scheduled is not appropriate	4
Not notified of the program	5
Other (Specify)	6

D6. The reasons why you attended the in-service education program the hospital provides. Please mark a response on each question.

	Answer
Encourages learning	1
To network and meet with my nursing colleagues	2
Provides a break from the pressures of work	3
To keep abreast with all the new developments	4
Provides me with the knowledge and skills I did not receive during my basic training	5
Helps to correct bad nursing practices	6
Other (Specify)	7

SECTION E: BARRIERS AFFECTING ENGAGEMENT OF NURSES ON CPD

E1. Indicate factors you consider to be barriers to your participation in CPD?

(You may indicate more than 1 factor)

	Answer
Lack of interest	1
Lack of time due to heavy workload	2
Staff shortage	3
Lack of finance	4
Failure of administration to organize off duty	5
Lack of information on available CPD sessions	6
Lack of time due to family commitments	7
Lack of role models at work	8
Unavailable interesting activities	9
Lack of encouragement (from colleagues, employer, etc.)	10
Irrelevant topics covered	11
Lack of CPD resources/activities	12
Other (Specify) ----- -----	13

Tool for qualitative data

1. What are your views about engagement of nurses on CPD educational programs in Addis Abeba?
2. How do you feel about the barriers for the engagement of nurses on CPD educational programs?
3. What recommendations can you make to enhance the implementation of CPD?(13)

ENGAGEMENT IN CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMS AND ITS BARRIERS AMONG NURSES I

ORIGINALITY REPORT

19%

SIMILARITY INDEX

17%

INTERNET SOURCES

9%

PUBLICATIONS

6%

STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

3%

★ uir.unisa.ac.za

Internet Source

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off