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St. Paul's Hospital Millennium Medical College**

**PERCEPTION TOWARDS THE IMPLEMENTATION OF EVIDENCE
BASED NURSING PRACTICE AND ASSOCIATED FACTORS AMONG
NURSES WORKING IN SELECTED PUBLIC TERTIARY HOSPITALS IN
ADDIS ABEBA, ETHIOPIA**

BY: MUKTAR KEDIR (B PHARM)

**A THESIS SUBMITTED TO SCHOOL OF PUBLIC HEALTH, ST. PAUL'S
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HEALTH PRESENTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTERS IN GENERAL
PUBLIC HEALTH**

JUNE 2023

ADDIS ABABA, ETHIOPIA



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JUNE 2023

ADDIS ABABA, ETHIOPIA

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ACRONYMS AND ABBREVIATIONS

AOR: Adjusted Odds Ratio

CI: Confidence Interval

COR: Crudes Odd Ratio

DF: Data Facilitator

EBP: Evidence Based Practice

EBNP: Evidence Based Nursing Practice

ETB: Ethiopian Birr

IHRERC: Institutional Health Research Ethics Review Committee

ICN: International Council of Nurses

KM: Kilometer

MSC: Master of Science

NMC: Nursing Midwifery Council

PI: Principal Investigator

NMC: Nursing midwifery council

RN: Registered nurses

SPSS: Statistical Package for Social Science

Abstract

Background: Evidence based nursing practice (EBNP) is clinical decision-making process through the integration of the best research evidence considering the patient values and the clinical experts'. The use of **research evidence** in clinical practice remains a **challenge**.

Objectives: The aim of this study is to **assess nurse's perception towards the implementation of EBNP and associated factors** in public hospitals in Addis Ababa, Ethiopia in 2023.

Methods: A **hospital- based cross-sectional study** design was employed to conduct this study. A total of 524 nurses were **randomly** selected using simple random sampling technique. A **structured self-administered questionnaire** was used for data collection. The data was coded and entered into Epi Info Version 7.2.50 and exported into SPSS Version 26 software for further analysis. Univariate analysis (frequencies, percentage and mean) was done and the results were presented using texts narration, tables and graphs. To see the presence of associations between variables, Binary logistic regression followed by multivariable logistic regression was conducted.

Results: The organizational factors like **supportive administration** and **having access to published research articles** in working area were other factors which shows a statistically significant association with nursing perception towards EBNP. Being **knowledgeable and having positive attitude**, have 3.51 (AOR = 3.51, 95% CI: 2.33-5.29), 2.90 (AOR = 2.90, 95% CI: 1.94, 4.35) times more likely to have a good perception towards the implementation of EBNP, respectively. Those hospitals with **supportive administration and nurses having access to published articles in working area** have 1.54 (AOR = 1.54, 95% CI: 1.00-2.36) and 1.51 (AOR = 1.51, 95% CI: 1.01-2.26) times more likely to have a good perception towards EBP. However, those nurses working in Rasdesta and Yekatit 12 were 31.2 % (AOR = 0.31, 95% CI: 0.16-0.59) and 43.6% (AOR = 0.44, 95% CI: 0.23-0.83) less likely to have a good perception towards EBNP as compared with St. Paul Millenium medical college.

Concussion: The **knowledge level, attitude, supportive administration, access to published research articles** in working area were positively associated with nurse's perception towards EBNP whereas the hospital the nurses work was negatively associated with nurse's perception towards EBNP.

Keywords: Perception, Knowledge, Attitude, Evidence based nursing practice, Nurses, Hospitals

1. INTRODUCTION

1.1. Background of the study

In health care, evidence is defined as availability of knowledge to decision makers and provides scientific assessment of performance. Evidence based practice (EBP) is clinical decision making process through the integration of the **best research evidence** considering the **patient values and the clinical experts' views** (1). Evidence-based nursing (EBN) can be defined as 'the effort to combine the **best scientific evidence from nursing** and **other research with the special clinical perspective of nurses in performing the full range of patient care activities pertinent to the nursing profession**'(2) . EBP is composed of five steps, including: asking answerable questions in specific clinical situations, finding the best evidence, appraising evidence critically and applying evidence with patient's preferences in clinical decision making and evaluating or assessing the effectiveness and efficiency of the process (1).

Medical and health care is one of the most dynamic human disciplines, and large amounts of money are spent annually on high-quality and sophisticated research, resulting in an exponential growth in health care literature. Regularly, **new and more effective medicines, medical devices, and procedures are invented**. One major objective behind all these efforts is to help doctors, nurses, and medical technicians provide the best possible care and treatment to patients. In addition to using traditional and well-established procedures and practices, health care practitioners are adopting innovative interventions that are based on best practices as well as solid research-based evidence. Evidence-based practice (EBP) is one such technique and is quickly gaining popularity due to its potential to effectively handle clinical issues and provide better patient care (3).

EBP has become the predominant model of care that has gained recognition for facilitating the transfer of research evidence into clinical practice. Using EBP means integrating the best available information with clinical expertise and patient values to achieve optimal health outcomes. As a consequence, it is a critical way to strengthen the practice of nursing (4).

Today, EBP is emphasized to increase the quality of care and patient safety in healthcare, and health professionals are expected to implement evidence into their daily clinical practice.

Nursing staff, in particular registered nurses (RNs), are the largest health professional group in all sectors of healthcare. The majority of RNs work in direct care of patients; assessing patients' needs and making decisions on nursing interventions. RNs' practice of EBP can be assumed to have a major impact on patients' outcomes and patient safety. Hence, there is a potential to improve quality of care and patient safety by enhancing RNs' practice of EBP (5) .

To effectively apply the EBP process, in addition to the basic skills required to undertake nursing work, a nurse must have the ability to: identify knowledge gaps, formulate relevant questions, conduct an efficient literature search, apply rules of evidence to determine the validity of studies, apply the literature findings appropriately to the patient's problem, and appropriately involve the patient in the clinical decision making (6).

Nurse's having good perception towards evidence based practice was 78% in Norway (7), 77% in Kenya (8), 90% in Addis Ababa(9) and 65% in Gondar (10), and nurse's having poor perception was 52% in Yenepoya (11) and 49.6% in Nigeria (12). Factors associated with nurse's perception of evidence based practice implementation are socio-demographic factors, organizational factors, and individual factors (1).

1.2 Statement of the problem

Healthcare organizations face **considerable challenges** in ensuring patient care based on the best available evidence. Studies consistently demonstrate a failure to implement interventions that have been shown to be both effective and cost-effective (9). Poorly informed decision making is one of the main reasons services can fail to be delivered in an optimal way and can also contribute to variations in practice which make services less efficient, ineffective and inequitable (13).

Valuable resources continue to be used for practices that are out of date, have no demonstrable benefit or are even harmful, while interventions that have been shown to be both inexpensive and effective have not been widely implemented. The provision of care in the Hospital is widely demanding and requires high level critical thinking and decision making skills inherent in the nursing profession there by demanding the use of EBP for nursing (9).

The Nursing midwifery council (NMC) Code: Professional standards of practice and behavior for nurses and midwives, states that it is the responsibility of each nurse and midwife to maintain their knowledge and skills and to practice within the best available evidence(14).

International Council of Nurses (ICN) has obliged nurses to participate actively in research and applying this research to develop EBP(13). Despite this, research reveals that nurses prefer to be informed by colleagues, rather than using the internet or nursing databases, and that most rely only on what they learned during their nursing education and from experience(15).

According to the research done in Norway on factors influencing the development of evidence based practice among nurses by using a cross-sectional study design revealed that nurses mainly used experience based knowledge for use in practice rather than evidence gained from research journals (16).

Another cross-sectional study done in Sweden on factors associated with evidence-based practice among registered nurses showed that evidence-based practice is implemented only by 30% of the nurses (5).

A study done on nurse's perception of barrier and facilitators to implement evidence based practice in the Maldives showed that only 5.2% of the participants search very often for evidence and research information (4).

Despite this, there are a limited study done on EBP in Ethiopia and little is known about it. Study done in North Gondar on evidence-based practice among health professionals in hospitals of Northwest Ethiopia shows that 53% of the respondents had utilized EBP (10) and a study in Addis Ababa at Tikur Anbessa hospital on nurse's perception and barriers on EBP shows that only 15.7% of the respondents use EBP in their clinical practice always (9).

According to the study done in Gondar knowledge, training about search strategies for finding research, having enough time and Internet access were factors significantly associated with utilization of EBP (10), similarly from the study in Addis Ababa supportive nurse managers, knowledge, skill and having free time were factors associated with the implementation of EBP (9). From the above studies, despite the advantage of EBP there is a practice gap.

In addition to this up to the knowledge of the researcher there is no study done on the assessment of nurse's perception towards EBP implementation and associated factors in central part of Ethiopia. So, this study is initiated to assess nurse's perception towards EBP implementation and associated factors which may affect EBP implementation.

1.3 Significance of the Study

This study was conducted to assess on nurses' perception towards evidence-based nursing practice implementation and its associated factors. An implementation of EBNP will be benefited patients through the provision of quality nursing care and patient's safety will also be protected. The nurses also became benefited by getting up-to-date information, provides standardized and quality nursing care.

It will provide basic information for nurse managers, hospital administrators, policy makers and Health Bureaus, hospitals to take appropriate intervention to enhance the implementation of evidence-based nursing practice. On the other hand, it will serve as a base line information for further research.

2. LITERATURE REVIEW

Nurse's perception towards evidence based practice implementation ranges from 47.4% on a study done in Nigeria to 90% in a study done in Addis Ababa (9,12). Factors associated with nurse's perception of evidence based practice implementation are **socio-demographic factors**, **organizational factors**, and **individual factors**(4).

2.1. Nurse's Perception towards Evidence Based Practice Implementation

According to a study done in Norway to study Evidence based practice beliefs and implementation among nurses by using a cross-sectional study design shows that 86% of the respondents agreed or strongly agreed with the statement that evidence-based guidelines can improve clinical practice, 79% agreed or strongly agreed that critically appraising evidence is an important step in the EBP process and 78% agreed or strongly agreed that EBP resulted in the best clinical care for patients (7).

A study done in Iran on factors facilitating and inhibiting evidence-based nursing using a **qualitative study design** with grounded theory approach revealed that participants liked to be up-to-date and to do their job using professional knowledge (2) and from the study done in Australia 59% agreed and 37% strongly agreed that EBP was fundamental to their professional practice (17).

Another Study done in Yenepoya revealed that 52 % of the nurses agreed that the research is not relevant to the nurse's practice, the benefit of changing practice will be minimal and the nurse is unwilling to change or try new ideas (11).

According to the study done in Kenya research utilization among nurses at a teaching hospital revealed that 77% of the participants appreciated that researches add value to practice (8), in contrast to this the study done in Nigeria showed that 47.4% of the participants believed that evidence-based practice has only limited utility and 49.6% agreed or strongly agreed that most research articles were not relevant to their daily practice (12).

A study done in Addis Ababa indicated that 90% of the respondents have good perception to EBP and the attitude and believe of nurses were welcoming or positive which accounts 73.8% (9). Similarly a study done in Gondar revealed that 65% of the respondents had favorable attitude

towards EBP and 48.5% of the respondents strongly agreed that EBP improves the quality of healthcare (10).

2.2. Factors Associated with Nurse's Perception of EBP Implementation

The factors associated with nurse's perception of evidence based practice implementation are socio-demographic factors, organizational factors and individual factors (4).

2.2.1 Socio-demographic factors

A study done in Singapore on adopting evidence-based practice in clinical decision making: nurse's perceptions, knowledge, and barriers indicated that nurses with **longer nursing experience were likely to be more confident in implementing** EBP activities and nurses who had **higher professional qualifications were likely to have better self-perceived abilities** to undertake different EBP-related activities (3) in contrast to this a study in Norway showed that younger nurses and nurses with fewer years of practice generally reported greater barriers to changing practice based on the best evidence than respondents of average age (16).

A cross-sectional survey done in Israel showed that the group reporting evidence based behavior (EBNP) were more likely to be in **managerial roles** or to have a degree than those not reporting evidence based behavior (15), similarly from the study done in east coast statistically significant differences were found in the perceived use of research, attitude toward research, availability of research resources, and perceived support for research activities based on educational level and organizational position but no significant differences were found in the perception of nurses based on years of experience (17).

A cross-sectional study in Norway on evidence based practice beliefs and implementation among nurses revealed that none of the background factors were associated with implementation of EBP in a statistically significant way(7)(8).

From the study done in Kenya professional qualification, and being in an administrative position were shown to have a significant positive association with utilizing research findings in practice, but sex and years of nursing experience had no significant association with utilizing research findings in practice (8).

A study done in Addis Ababa Tikur Anbessa specialized hospital on assessment of nurse's perception and barriers on evidence based practice revealed that age at 30-34yrs had a significant association with EBP with (AOR: 3.74, 95%CI: 1.2-11) (9).

2.2.2 Organizational factors

According to the study done in Norway on factors influencing the development of evidence-based practice among nurses revealed that insufficient time to find research reports, insufficient time to find organizational information (such as guidelines and protocols), insufficient time at work to implement changes(work load) were the greatest barriers for EBP implementation, and the use of research was significantly associated with self-reported skills in finding and reviewing research based evidence and implementing it in practice (16) , similarly the study done in California showed that limited time for evidence-based practice during scheduled working hours, inadequate support both resources and mentoring for clinical nurses to be involved in evidence-based practice, and organizational culture were the barriers of EBP implementation (18).

A survey done in Singapore on nurses' perceptions, knowledge, and barriers of EBP indicated that those nurses who attended EBP-related training were likely to feel more competent in their abilities to implement EBP and similarly the study done in Gondar showed that health professionals who attended training about search strategies were almost two times more likely to use EBP(AOR: 1.906, 95%CI: 1.223-2.97) compared with those who did not attend training about search strategies (10).

From the study done in Singapore provision of adequate training on EBP, availability of protected time to learn and implement, mentoring by nurses who had adequate experience with implementing, support from their nursing management and access to a system for comprehensive literature searching were the supporting factors in implementing EBP (3).

A study done in Israel showed that the greater the support received from the system, the greater the probability that the respondent's practice would be reported as evidence based practice (15).

A study done in Yenepoya on perceived barriers to evidence based practice among registered nurses showed that 54% of the participants perceived that the physician, administration and other staffs will not cooperate to implement the research findings, insufficient time on the job to

implement new ideas and does not have time to read the research were the perceived barriers for EBP implementation(11).

Studies done in **Nigeria** showed that time to engage in reading and searching for research articles (40.6%)(12), insufficient time(51.8%), **inadequate resources for utilization of evidence-based practice**(79.1%), and doctors will not cooperate with the implementation(38.7%)(19) were the barriers of EBP implementation.

A study done in Kenya showed that having undertaken a **post basic training** was shown to have a significant positive association with utilizing research findings in practice where as inadequate facilities for implementation (66.4%) (8), and **poor access to research** evidence, lack of time in a study in Egypt were the barriers of EBP implementation(19).

A study done in **Addis Ababa** Tikur Anbessa specialized hospital showed that **supportive nursing** managers were five times more likely(AOR: 5, 95%CI: 1.7-14.5) to determine EBP implementation, those having free time were eight times more likely (AOR: 7.9, 95%CI: 3.5-17.6) to implement EBP(9).

Similarly a study done in North Gondar on evidence-based practice among health professionals in hospitals of Northwest Ethiopia revealed that health professionals who had enough time to apply EBP were almost 1.7 times more likely(AOR: 1.698, 95%CI: 1.122-2.57)to use EBP compared to those who did not have enough time to apply EBP, and health professionals who **had Internet access** were 1.8 times more likely(AOR: 1.831, 95%CI: 1.191-2.816) to utilize EBP compared with those who did not have internet access(10).

2.2.3 Individual factors

A study done in Norway revealed that the greatest barriers of EBP implementation were lack of confidence in assessing the quality of research, difficulty in understanding English-language publications (16), and self-confidence from the study done in Iran(2), on the other way another study in Norway showed that those who had learned about EBP and those who took part in EBP working groups had statistically significant higher average scores for beliefs in EBP than those who had neither learned about EBP nor worked in EBP working groups(7).

From the study done in California Lack of knowledge related to difficulty in finding and understanding research reports and data, as well as how to change nursing practice (18)and similarly from the study done in England difficulties in understanding and judging the quality of research (20) were the identified barriers of EBP implementation.

From the study done in Israel the greater the respondents' belief in their skills, the higher the probability that their practice would be reported as evidence-based, more the sources of knowledge were based on reading professional literature, the higher the probability that the respondent's practice would be reported as evidence-based, but the more the sources of knowledge were based on colleagues and system, the smaller the probability that the respondent's practice would be reported as evidence-based (15).

The study done in Nigeria revealed that the barriers of EBP implementation were inadequate understanding of research terms used in research articles(57.9%), inability to understand statistical terms used in research articles(61.7%), difficulty in judging the quality of research papers and reports(55.6%), and difficulty in determining the applicability of research findings(44.4%) (12) and from another study done in Nigeria, poor attitude of nurses to change(70%), lack of knowledge of evidence-based nursing practice(81.8%) (21).

A study done in Addis Ababa Tikur Anbessa specialized hospital on assessment of nurse's perception and barriers on evidence based practice showed that those knowledgeable were three times higher(AOR: 3.2, 95%CI: 1.5-7.0)in implementation of EBP than who have no knowledge for implementation of EBP(9), but there was no association between clinical experiences and implementation of EBP and similarly the study done in Gonder revealed that health professionals who had good EBP knowledge were 1.6 times more likely(AOR: 1.612, 95%CI: 1.06-2.452)to use EBP compared with those who had poor EBP knowledge (10).

2.3 Conceptual Frame-work [of literature review](#)

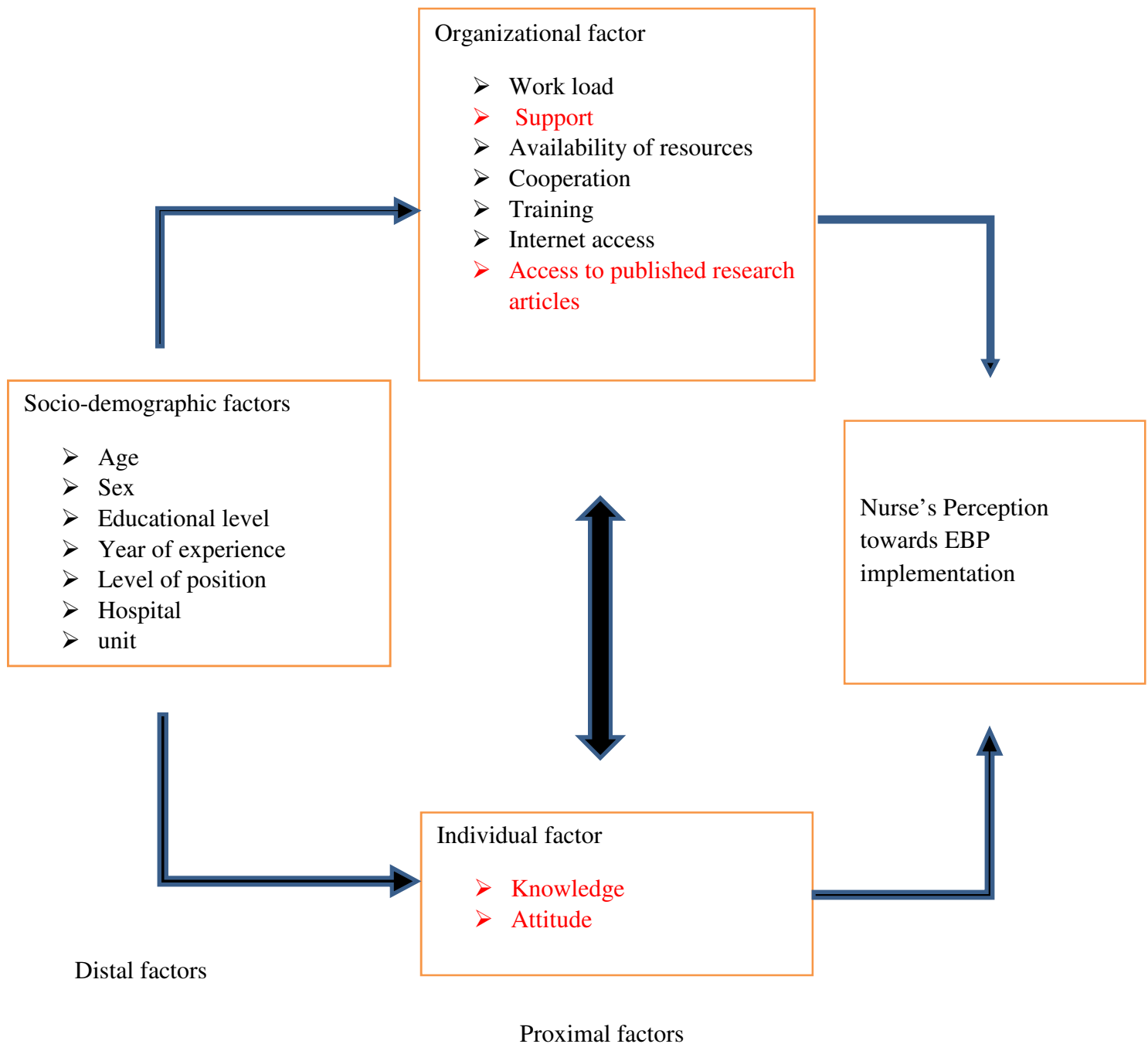


Figure 1: Conceptual frame-work showing factors associated with nurse's perception of EBNP implementation developed by reviewing different literatures, January 2023([2](#), [12](#), [15](#) [16](#), [18](#), [21](#)).

3. OBJECTIVES OF THE STUDY

3.1 General objective

To assess nurses' perception towards the implementation of evidence-based nursing practice and associated factors among nurses in selected public hospitals in Addis Ababa, Ethiopia in 2023.

3.2 Specific objectives

- To assess nurses' perception towards the implementation of evidence-based nursing practice in selected public hospitals in Addis Ababa.
- To identify factors associated with nurses' perception towards the implementation of evidence-based practice in selected public hospitals in Addis Ababa.

4. METHODS and materials

4.1. Study Setting and Period

The study was conducted in selected governmental hospitals found in Addis Ababa city administration, which is the capital city of Ethiopia. Addis Ababa City Administration is one of the two federal city administrations found in the Ethiopia. There are 12 public hospitals in Addis Ababa. Among them, St. Peter, St. Paul hospital millennium medical college (SPHMMC), Rasdesta Damtew Memorial Hospital, Zewditu memorial hospital, and Yekatit 12 provides multi-dimensional aspect of care to patients who need highly qualified and specialized health care services. All these five hospitals have medical, surgical, gynecology, pediatrics, emergency, Intensive care unit (ICU) and psychiatric wards which can accommodate a number of nurses. SPHMMC is teaching hospital with a total of 416 nurses, 450 beds. St. Peter hospital is referral hospital which is under federal government with 378 nurses and 386 beds. Zewditu Memorial Hospital of Addis Ababa health bureau with 334 nurses and 324 beds and Yekatit 12 hospital of Addis Ababa health bureau with 305 nurses and 416 beds. The study was conducted from April 1-30, 2023.

4.2. Study Design

A **hospital-based cross-sectional** study was conducted in five public hospitals, which are found in Addis Ababa City Administration.

4.3. Population

4.3.1. Source Population

The source population was **all nurses working** in public hospitals in Addis Ababa.

4.3.2. Study Population

The study population was all nurses working in selected public hospitals of Addis Ababa city.

4.3.3. Study Unit

The study unit was selected nurses working in selected public hospital of Addis Ababa city.

4.3.4. Sampling Frame

The sampling frame was all nurses working in selected public hospital of Addis Ababa city. This could be, for example, the lists of Nurses Working the selected public tertiary hospitals in Addis Ababa from the hospital's respective Human Resource profile OR list form the Matron office of the respective hospitals, etc.

4.4. Eligibility Criteria

4.4.1. Inclusion criteria

All nurses working in selected public hospital in Addis Ababa city, who were willing to participate in the study and signed the informed consent sheets, were included in the study.

4.4.2. Exclusion criteria

Those nurses who have **less than six months** of experience were excluded from the study.

4.5. Sample Size Determination and Sampling Procedures

4.5.1. Sample Size Determination

The sample size for the first objective was calculated by using **single population proportion** formula using $p = 90\%$ (**which is the perception of nurses towards EBP from the study done on Addis Ababa** (9), 95% Confidence interval, 5% marginal error as follows.

$$n = \frac{(z\alpha/2)^2 pq}{d^2}$$
$$n = \frac{(1.96)^2 (0.9)(0.1)}{0.05^2}$$

$n=138$ by adding 10% nonresponse rate the final sample size was 152.

Where; n is the minimum sample size, z is the standard score (critical value) corresponding to 95% confidence level, p is the proportion of nurse's having good perception towards evidence-based practice, q ($1-p$) is proportion of negative character, and d is marginal error.

For the second objective, the sample size was calculated considering each factor by using Epi Info version 7.2.50 STATCALC by using 95% confidence interval, 80% power, exposed unexposed ratio of 1 as follows.

Table 1: Sample size calculation for the second objective which is factors associated with nurse's perception of EBP implementation in government hospitals of Addis Ababa city administration, Ethiopia, January 2023.

Variable	Perception of EBP		AOR	Sample size	Reference
	Exposed	Unexposed			
Knowledge about EBP	58.7 (good)	42.9(poor)	1.612	338	(10)
Training about search strategies	63.8 (yes)	47.6(no)	1.906	318	
Internet access	60.4 (yes)	48.9(no)	1.831	622	
Availability of enough time to apply EBP	59.9 (yes)	43.9(no)	1.698	330	

Sample size for the second objective was calculated and gives results 338, 318, 622, and 330.

The sample 622 is greater than the sample size calculated for the first objective which is 159, so we take 622.

Since the total population 1713s <10,000, population correction formula was used to get the final sample size.

$$nf = \frac{n}{1} + \frac{n}{N}$$

$$nf = \frac{622}{1} + \frac{622}{1713}$$

$$nf = 456$$

By adding 15% so the final sample size was 524.

Where; nf is final sample size, n is minimum sample size, and N is sample population which is 1713.

4.5.2. Sampling Technique and Procedures

There were twelve public hospitals found in Addis Ababa city administration. Five public tertiary hospitals were randomly selected by using Lottery method. The total numbers of nurses in the selected **public** hospitals were **1713**. The numbers of nurses which can be taken from each hospital were proportionally allocated to the selected five public hospitals. Then, by taking the list of all nurses in each hospital as a **sampling frame** the sample can be taken by a simple random sampling method(Lottery method).

The proportional allocation was done by using the following formula:

$$n_j = n_f * \frac{N_j}{N}$$

Where n_j is the sample size for the j th hospital

n_f = final sample size

N_j = total population for the j th hospital

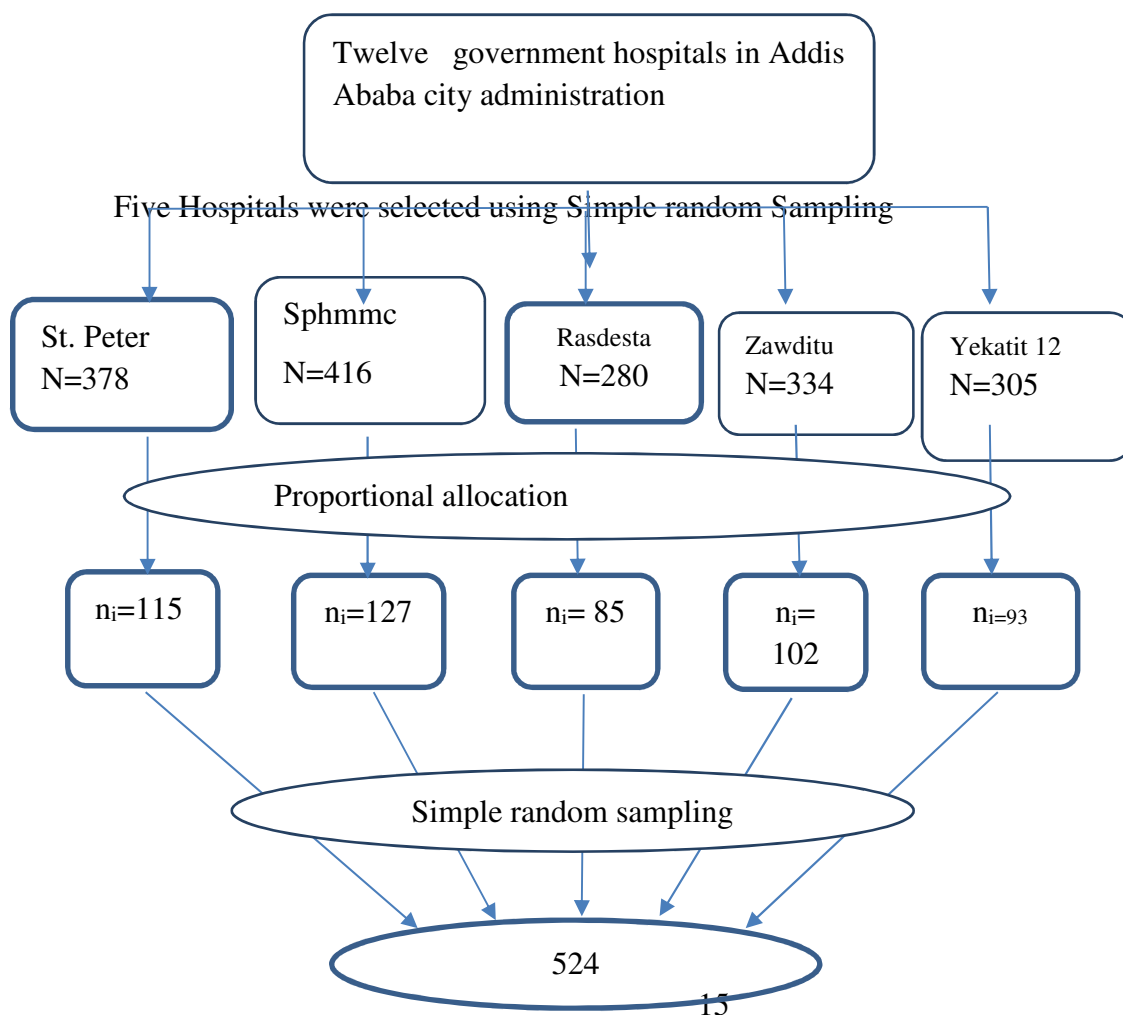


Figure 2: Diagrammatic representation of sampling procedures to select study participants (nurses) from public hospitals in Addis Ababa, Ethiopia, January 2023.

4.6. Study Variables

The dependent variable was **nurses' perception** towards EBNP implementation. The independent variables include **socio-demographic** variables including age, sex, marital status, educational level, years of experience, level of position, working unit and working hospital; and individual variables (**knowledge, attitude**); and organizational variables including support, work load, cooperation, training, internet access and availability of resources.

4.7. Operational definitions and measurements

Evidence based Nursing Practice: is the 'conscientious, explicit and judicious use of current best evidence in making decisions about care of individual patients, integrating individual clinical expertise with the best available external clinical evidence from systematic research'. In this study, EBP referred to nurses' ability to appraise and utilize findings based on evidence in nursing practice (12).

Perception: Is the internal cognitive process that **detects, interprets and relates information**; in this study it referred to nurses' **own interpretation and understanding of EBNP** (12).

Good perception: Respondents answering **equal to the mean or above the mean score** of questions related to nurse's perception towards EBP was considered to have good perception (9).

Attitude: Is the way in which an individual thinks and feels towards something. In this study, it referred to the way the nurses felt about EBNP (12).

Positive attitude: Respondents answering equal to the **mean or above the mean score** of questions related to attitude of nurses towards EBP was considered as having **positive attitude** (9).

Negative attitude: Respondents answering below the **mean score of questions related to attitude of nurses towards EBNP** was considered as having **negative attitude** (9)

Knowledge is defined as information whose validity has been established through tests of proof; in this study, it referred to the understanding of what EBP is by the nurses (12).

Knowledgeable: Respondents answering **equal to the mean or above** the mean score of questions related to nurse's knowledge of EBP (9).

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4.8. Data collection method, tool and procedures

The data was collected using a self-administered structured questionnaire which is adapted from (3) 'Adopting evidence-based practice in clinical decision making: nurses perceptions' which was modified and used by (9) and also used in the study done in Addis Ababa(12), in Nigeria(6), in Egypt(19), in Malaysia(20), in Kazakhstan (22), in Iran with Cronbach alpha coefficient of 0.81 and 'Evidence-based practice questionnaire'(23), Cronbach alpha coefficient of 0.87 which was previously used by (1,3,5,12,22,23). Additional questions are added by reviewing different literatures. The questionnaire is prepared in English and translated in to Amharic and then back to English to check for its consistency.

Ten internship pharmacy students were hired as data collectors and one MPH professional was used as a supervisor. Data collectors and the supervisor were recruited and a two days training was given on the overall objective of the study and the data collection tool and procedures.

4.9. Data collection method, tool, and procedures

Data was collected using a structured and pretested questionnaire. The questionnaire was adapted from (3) which was modified, used and validated by many researchers (9,12,19,22).

The questionnaire has five parts.

Part I: Contains questions related to the socio-demographic characteristics of the respondents such as age, sex, **ethnicity, religion**, marital status, educational status, year of experience, working hospital, working unit and level of position.

Part II: Contains questions related to nurse's **perception** towards EBP implementation which has nine questions which are constructed on a 5-point Likert scale, that ranges from strongly disagree (1) to strongly agree (5) adopted from (3). The total score ranges from 9 to 45.

Part III: Contains questions related to nurse's knowledge of evidence based practice implementation with a total of 19 questions with yes or no options adopted from (23) and five questions are added from other literatures.

Part IV: Contains five questions related to attitude of nurses towards evidence based practice implementation which are constructed on a 5-point Likert scale, that ranges from strongly disagree (1) to strongly agree (5) which is adopted from (3). Responses range from 5 to 25.

Part V: contains questions related to factors associated with nurses perception of evidence based practice implementation which are developed by reviewing different literatures.

The data collectors were responsible for the distribution of the self-administered questionnaire to all nurses who met the inclusion criteria and willing to participate in the study. This was done after presenting the study purpose briefly and signing the consent form of each individual nurse. The respondents were encouraged to respond to all items in the questionnaire as much as possible to minimize the missing value. For the selected nurses who were absent during the day of data collection, their names were noted and they were included in the study during the next visit. The procedure was supervised by one MPH professional.

4.10 Data Quality Control and Measurement

Pretest was done on 5% of the sample size in Minilik II Hospital in order to check the reliability of the instrument, and to estimate the time needed to collect data. The **ethnicity and religion** were excluded from the questionnaire based on the response from the respondents then appropriate amendment was done on the questionnaire. The data facilitators and supervisors were trained on how to collect the data and about the detail aspect and component of the questionnaire for two days. Close supervision of the data for its completeness was performed by each data facilitator and supervisor.

4.11 Data Processing and Analysis

The **outcome variable of this study is nurses' perception towards EBP implementation** and good perception was coded as "1" and poor perception as "0". The **explanatory variables** were also coded as those **knowledgeable as "1"** and **not knowledgeable as "0"**, **positive attitude as "1"** and **negative attitude as "0"**. Then the data was entered into Epi info 7.2.50 and exported into SPSS Version 26 software for analysis. Univariable analysis like frequencies and percentage were computed for categorical type of variables, and mean and standard deviation for continuous variable with normally distributed, median and IQR was computed for non-normally distributed) was calculated and the results were presented using texts narration, tables and graphs.

To see the presence of associations between variables, binary logistic regression was conducted. In bivariate analyses, the strength of association was reported by their crude odds ratio (COR) with 95% confidence interval (CI) at $p\text{-value} < 0.25$. Then, to identify the independent predictors of nurses' perception towards the implementation of EBNP, multivariable logistic regression analysis was done and candidate variables were selected with $p\text{-value} < 0.25$ using forward selection method and reported by their AOR and respective CI. Variables with $p < 0.05$ were considered as there is significant association between variables.

4.12. Ethical Considerations

Ethical clearance and approval was obtained both from the Institutional Review Board (IRB) of SPHMMC. Then support letter from SPHMMC to Public Health and Emergency Management Directorate of Addis Ababa Health Bureau. Then, permission letter was written to the respective hospitals, and get permission. In addition, an informed written consent was signed by each study participant after the aim of the study was explained to all the study participants. It was also clearly described that participation was fully depend on the willingness of the participants and participant has the right to deny or withdraw/discontinue from the interview at any time during the data collection. Confidentiality and privacy of the information was kept by excluding the names of the respondents in the questionnaire.

4.13 Disseminations of results

The result of this study was presented on an open public defense for the School of Public Health, SPHMMC. The final version of the research report will be submitted to the School of Public Health, SPHMMC and archived in the main Library of the College. Additionally, the result was disseminated for the Addis Ababa health bureau, Addis Ababa Public Health and Emergency Management Directorate, for the corresponding hospitals, and Ethiopian Nursing Association for possible action. The research findings will be published on peer reviewed scientific journal.

4.14. Expected outcomes

This study is expected to reveal nurse's perception towards evidence based practice implementation and associated factors among nurses working in hospitals of Addis Ababa city administration in 2022/23.

5. RESULTS

5.1. Socio-demographic characteristics of the participants

In this study, 503 participants were involved in the study making response rate of about 96%. Out of 503 participants who participated in the study, 345(68.6%) were females. Median age was 29 years with an interquartile range (IQR) of 27, 32 and the minimum and maximum age was 20 and 53, respectively. The frequency and percentage of nurses between 25 and 29 were 208(41.4%) and the age groups of 30 and 34 were 184(36.6%). Majority of the nurses were single [317 (63%)]. The percentage of nurses with a bachelor's or master's degree in nursing was 80.7% and 8.7%, respectively. Majority of the nurses work in medical ward 140 (27.8%), followed by outpatient 79 (15.7%) and pediatrics 71 (14.1%) units. Majority of the nurses had less than 5 years of work experience (331, 65.8%) and 142 (28.2%) of the nurses had 6–10 years of work experience. Only 30(8%) were in different managerial position (Table 2).

5.2. Nurses' Perception of the implementation of evidence-based Nursing practice (EBNP)

Almost half of the respondents or slightly lower percentage of the respondents agree on all questions related to the Nurses' perception towards EBNP implementation. More than half of the nurses agreed on identification of clinical issues/problems (52.3%), translation of a clinical issue/problem (51.9%), and distinguish between different types of questions (52.1%). However, less than half had reported that they had conducted online searches (43.3%), related research finding to their clinical practices (47.9%), used a check list to assess research articles (40.2%), read research report and have a general notion (42.1%), evaluated the application of intervention and identify areas of improvement (44.5%) and applied an intervention based on the most applicable evidence (45.1%) (Table 3).

Table 2: Socio-demographic characteristics of nurses working in selected public hospitals in Addis Ababa, Ethiopia, June 2023 (n = 503).

Variable	Response Category	Frequency (n)	Percent (%)
Sex	Male	158	31.4
	Female	345	68.6
Age group	20-24	49	9.7
	25-29	208	41.4
	30-34	184	36.6
	35-54	62	12.3
	Media (IQR)	29(27-32)	
Years of work Experience	1-5	331	65.8
	6-10	142	28.2
	11 and above	30	6
Marital status	Single	317	63
	Married	175	34.8
	Divorced	11	2.2
Hospital you are working for	SPHMMC	123	24.5
	St. Peter	110	21.9
	Zewiditu	99	19.7
	Yekatit 12	91	18.1
	Ras Dasta	80	15.9
Hospital unit/ward you are working now	Surgical ward	72	14.3
	Medical ward	140	27.8
	ICU	41	8.2
	OBS/GYN	38	7.6
	Pediatrics	71	14.1
	OPD	79	15.7
	Emergency	50	9.9
	Others*	12	2.4
Educational level	Diploma	53	10.5
	Degree	406	80.7
	Masters	44	8.7
Position within the hospital	Staff Nurse	463	92
	Head Nurse	40	8

*Anti retroviral therapy clinic, Tuberculosis clinic, Dental clinic, Ophthalmology Clinic

SPHMMC; St Paul Hospital Millenium Medical College; ICU: Intensive Care Unit; OBS/GYN; Obstetrics/Gynecology.

Table 3: Nurses' Perception of the implementation of evidence-based nursing practice in selected public hospitals in Addis Ababa, Ethiopia, June 2023 (n = 503).

Perception variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)
Identified clinical issues/problems	43 (8.5)	29 (5.8)	70 (13.9)	263 (52.3)	98 (19.5)
translated a clinical issue/problem	24 (4.8)	42 (8.3)	85 (16.9)	261 (51.9)	91 (18.1)
Distinguished between different types of questions	21 (4.1)	37 (7.4)	97 (19.3)	262 (52.1)	86 (17.1)
Conducted online searches	20 (4.0)	51 (10.1)	133 (26.4)	218 (43.3)	81 (16.1)
Related research finding to my clinical practice	18 (3.6)	49 (9.7)	119 (23.7)	241 (47.9)	76 (15.1)
Used a check list to assess research articles	26 (5.2)	49 (9.7)	146 (29.0)	202 (40.2)	80 (15.9)
Red research report and have a general notion	30 (6.0)	43 (8.5)	144 (8.6)	212 (42.1)	74 (14.7)
Evaluated the application of intervention and identify areas of improvement	23 (4.4)	50 (9.9)	117 (23.3)	224 (44.5)	89 (17.7)
Applied an intervention based on the most applicable evidence	35 (7.0)	45 (8.9)	106 (21.1)	227 (45.1)	90 (17.9)

In this study, 301(59.84%) of the nurses had good perception, which is the calculated overall perception score (Figure 3).

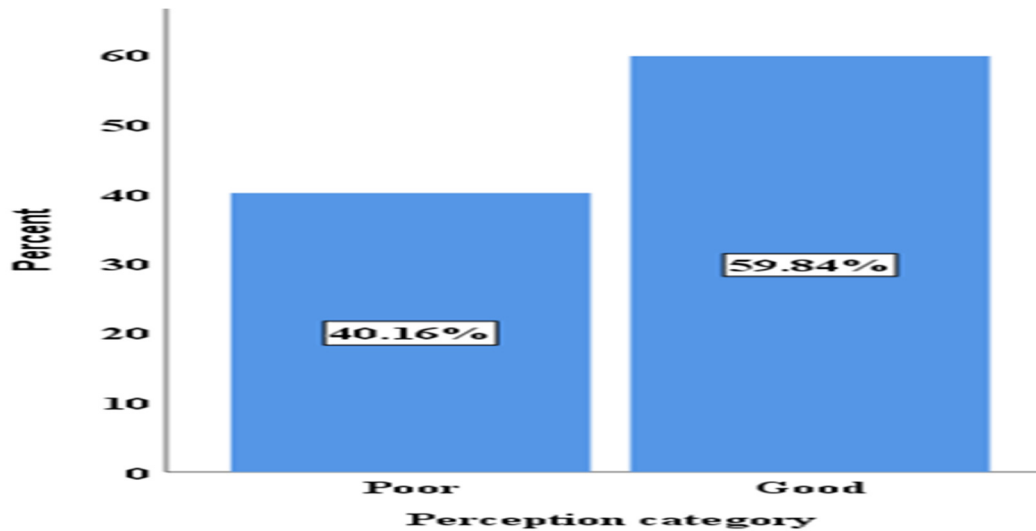


Figure 3: Nurses' perception towards EBNP implementation in selected public hospitals in Addis Ababa, Ethiopia, June 2023 (n= 503).

5.3. Knowledge of the implementation of EBNP among nurses

The mean score for knowledge related questions was 0.78. Around 88.1 % of the respondents have previous experience of using EBNP and 87.9% of the respondents are familiar with the definition of EBNP. Majority 74.2% of the respondents use text books and colleagues as a quick and best way to find evidence and 78.1% have the ability to identify gaps in your professional practice. However, almost half 49.1% of the nurses lack a research skill and (34.4%) fail to use the research findings in their EBP (Table 4).

Table 4: Knowledge of EBNP among nurses working in public hospitals in Addis Ababa, Ethiopia, June 2023 (n=503).

Knowledge variables	Yes, n (%)	No, n (%)
Patients subjective and objective data	479 (95.2)	24 (4.8)
Information from textbooks	413 (82.1)	90 (17.9)
Previous experiences of healthcare professionals	443 (88.1)	60 (11.9)
Research findings	330 (65.6)	173 (34.4)
Patients value preference	448 (89.1)	55 (10.9)
EBNP involves a series of steps from identifying the clinical question	442 (87.9)	61 (12.1)
EBNP is a process of making decisions based on scientifically proven evidence	447 (88.9)	56 (11.1)
The best and quickest way to find evidence is by reading text books or asking	373 (74.2)	130 (25.8)
Evidence from all published articles in scientific journals can be used in EBNP	387 (76.9)	116 (23.1)
Research skill	256 (50.9)	247 (49.1)
Information technology skill	346 (68.8)	157 (31.2)
ability to monitor and review practice skills	371 (73.8)	132 (26.2)
Ability of converting your information needs into research	355 (70.6)	148 (29.4)
Awareness of major information type and source	383 (76.1)	120 (23.9)
Ability to identify gaps in your professional practice	393 (78.1)	110 (21.9)
Knowledge of how to retrieve evidence	352 (70.0)	151 (30.0)
Ability to analyze critical evidence against a set standard	342 (68.0)	161 (32.0)
Ability to determine how valid cloth to the truth the material	351 (69.8)	152 (30.2)
Ability to determine how useful clinically applicable the ma	399 (79.3)	104 (20.7)
Ability to apply information to individual cases	417 (82.9)	86 (17.1)
Share ideas and information with colleagues	451 (89.7)	52 (10.3)
Disseminate new ideas about care to colleagues	438 (87.1)	65 (12.9)
Ability to review your own practice	449 (89.3)	54 (10.7)

In this study, 264 (52.5%) of nurses are **knowledgeable** and the rest are **not knowledgeable** (Figure 4).

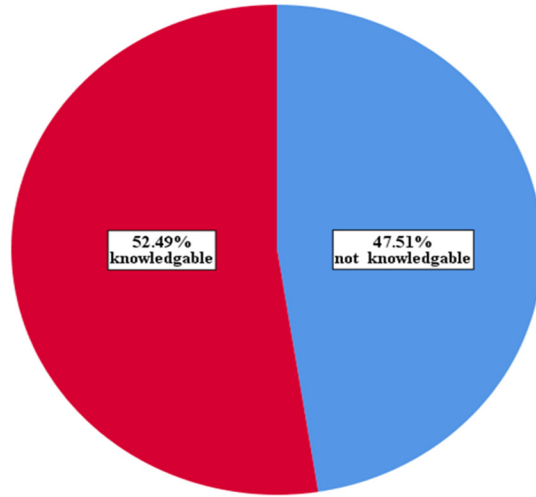


Figure 4: Nurses' knowledge about EBNP implementation in selected public hospitals in Addis Ababa, Ethiopia, June2023 (n = 503).

5.4. Attitude of the nurses towards the Implementation of EBNP

The mean score for attitudes was 3.5. Some 72 (13.7%) of the respondents strongly agree that their workload is too high to keep up to date with all new evidence. About 45.6% of the respondents agreed that they do not like it if people question their clinical practice, which is based on established methods Moreover, 39.3% believed that EBNP has not limited utility. In this study, only 65 (12.4%) of the nurses disagreed on changing to new approaches. About 45.6% of the participants agree when people question their clinical practices (and most research articles are relevant to their daily practice was 39.5% (Table 5).

Table 5: Attitude towards the implementation of EBNP among nurses working in public hospitals in Addis Ababa, Ethiopia, June 2023 (n = 503).

Attitude variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)
I like people questioning my clinical practices	31 (5.9)	30 (5.7)	98 (18.7)	239 (45.6)	126 (24.0)
Not preferred using more traditional methods	31 (5.9)	65 (12.4)	112 (21.4)	219 (41.8)	97 (18.5)
I believe most research articles are relevant to my daily practice	24 (4.6)	69 (13.2)	155 (29.6)	207 (39.5)	69 (13.2)
I believe EBNP has not limited utility	19 (3.6)	80 (15.3)	152 (29.0)	206 (39.3)	67 (12.8)
I believe my workload is not too high to keep up to date	36 (6.9)	77 (14.7)	121 (23.1)	218 (41.6)	72 (13.7)

In this study, 55.27% of nurses had positive attitude towards the implementation of EBNP in hospitals (Figure 5).

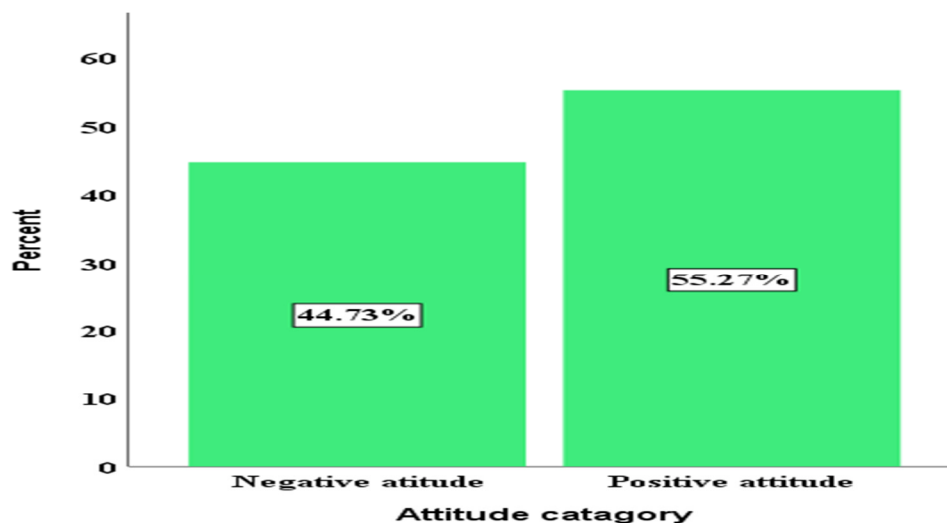


Figure 5: Diagrammatic representation of nurses' attitude towards EBP implementation in governmental hospitals of Addis Ababa city Administration, Ethiopia 2023 GC

5.5. Organizational Factors associated with nurse's perception of EBNP implementation

Above half of the respondents **53.9% attended training** about EBNP. Majority **88.9%** of the nurses had internet access and 80.7% had access to organizational information, guidelines, and/or protocols. Almost half (48%) and 36.4% of the respondents reported that resources were insufficient (and no supportive administration to implement EBNP, respectively. About 62.8% of nurses were confident to implement EBNP (Table 6).

Table 6: Organizational Factors associated with nurse's perception of EBNP implementation in selected public hospitals in Addis Ababa, Ethiopia, June 2023 (n = 503).

Organizational factors	Yes n (%)	No n (%)
Had attended any training course on Evidence based nursing practices	271 (53.9)	232 (46.1)
Had internet access in their work setting	447 (88.9)	56 (11.1)
Had the access to organizational information, guidelines, and protocols	406 (80.7)	97 (19.3)
Sufficient resources are available to implement EBNP	258 (51.3)	245 (48.7)
There is administrative supportive to implement EBNP	320 (63.6)	183 (36.4)
Staffs are cooperative to implement EBNP	337 (67.0)	166 (33.0)
Had access to published research articles in your working area	274 (54.5)	229 (45.5)

5.6. Factors associated with nurse's perception of EBP implementation

Binary logistic regression analysis was conducted to identify factors associated with nurses' perception towards the implementation of evidence-based nursing practice. Knowledge level, attitude, supportive administration, access to published research articles in working area are positively associated with nurses' perception towards the implementation of EBNP whereas hospital nurses work for is negatively associated with nurses' perception towards the implementation of evidence-based nursing practice. Being knowledgeable and having positive

attitude, have 3.51 (AOR = 3.51, 95% CI: 2.33-5.29), 2.90 (AOR = 2.90, 95% CI: 1.94, 4.35) times more likely to have a good perception towards the implementation of EBNP, respectively.

Organizational factors like supportive administration and having access to published research articles in working area were other factors which shows a statistically significant association with nurses' perception towards the implementation of EBNP. Those nurses who has supportive administration and had access to published articles in working hospital have 1.54 (AOR = 1.54, 95% CI: 1.03, 2.36) and 1.51 (AOR = 1.51, 95% CI: 1.05, 2.26) times more likely to have a good perception towards the implementation of EBNP. However, those nurses working in Rasdesta and Yekatit 12 were 31.2 % (AOR =0.31, 95% CI: 0.16, 0.59) and 43.6% (AOR = 0.44, 95% CI: 0.23, 0.83) less likely to have a good perception towards the implementation of EBP as compared with SPHMMC (Table 7).

Table 7: Bivariate and multivariable logistic analyses showing factors associated with nurses' perception towards the implementation of in selected public hospitals in Addis Ababa, Ethiopia, June 2023 (n = 503).

Variables	Category	Perception		COR (95% CI)	AOR (95% CI)
		Good, n (%)	Poor, n (%)		
Gender	Male	107 (35.5)	51 (25.2)	1	
	Female	194 (64.5)	151 (74.8)	0.612 (0.412-0.91)	
Hospital you are working now	SPHMMC	87 (28.5)	36 (17.8)	1	
	St.Peter	67 (22.3)	43 (21.3)	0.645(0.374-1.112)	0.72 (0.39-1.31)
	Zewiditu	68 (22.6)	31 (15.3)	0.908(0.510-1.614)	0.75 (0.40-1.40)
	Yekatit 12	38 (12.6)	53 (26.2)	0.297(0.168-0.524)	0.312(0.16-0.58)**
	Ras Dasta	41 (13.6)	39 (19.3)	0.435(0.242-0.781)	0.436(0.23-0.83)*
Unit you are working now	Surgical ward	47 (15.6)	25 (12.4)	1	
	Medical ward	93 (30.9)	47 (23.3)	1.053(0.578-1.915)	
	ICU	25 (8.3)	16 (7.9)	0.831(0.376-1.837)	
	OBS/GYN	23 (7.6)	15 (7.4)	0.816(0.362-1.836)	
	Pediatrics	41 (13.6)	30 (14.9)	0.727(0.370-1.429)	
	OPD	37 (12.3)	42 (20.8)	0.469(0.243-0.903)	
	Emergency	31 (10.3)	19 (9.4)	0.868(0.410-1.836)	
	Others	4 (1.3)	8 (4.0)	0.266(0.073-0.971)	
Educational status	Diploma	26 (8.6)	27 (13.4)	1	
	Degree	242 (80.4)	164 (81.2)	1.532(0.863-2.72)	
	Masters	33 (11.0)	11 (5.4)	3.115(1.306-	

				7.431)	
Knowledge	Not-knowledgeable	102(33.9)	137(67.8)	1	1
	Knowledgeable	199(66.1)	65(32.2)	4.112(2.813-6.01)	3.51 (2.33-5.29)**
Attitude	Negative	96(31.9)	129(63.9)	1	1
	Positive	205(68.1)	73(36.1)	3.774(2.59-5.49)	2.903 (1.936-4.351)**
attended training	No	123(40.9)	109(54.0)	1	
	Yes	178(59.1)	93(46.0)	1.696(1.18-2.43)	
internet access	No	28(9.3)	28(13.9)	1	
	Yes	273(90.7)	174(86.1)	1.569(0.89-2.73)	
access to organizational guidelines	No	45(15.0)	52(25.7)	1	
	Yes	256(85.0)	150(74.3)	1.972(1.26-3.08)	
sufficient resources	No	123(40.9)	122(60.4)	1	
	Yes	178(59.1)	80(39.6)	2.207(1.53-3.17)	
Supportive administration	No	83(27.6)	100(49.5)	1	1
	Yes	218(72.4)	102(50.5)	2.575(1.77-3.74)	1.538(1.003-2.36)*
cooperative Staff	No	80(26.6)	86(42.6)	1	
	Yes	221(73.4)	116(57.4)	0.488(0.33-0.71)	
access to published articles	No	115(38.2)	114(56.4)	1	1
	Yes	186(61.8)	88(43.6)	2.095(1.46-3.01)	1.509(1.005-2.269)*
Confidence to implement EBP	No	89(29.6)	98(48.5)	1	
	Yes	212(70.4)	104(51.5)	2.245(1.549-3.252)	

*P-value <0.05; ** P-value <0.001

6. DISCUSSION

In current study, the proportion of nurses who had good perception towards EBNP was 59.4% which is comparable with study done in Gondar (10). The proportion nurses' who had good perception in this study is greater than studies done in Yenepoya (48%) and in Nigeria (49.6 %) (12). However, the proportion of nurses with good perception is less compared to findings of a study done in Norway (7), 77% in Kenya (8) and 90% in Addis Ababa (9).

Our study revealed that almost half of the nurses (53.9%) took training about EBNP which is greater than the findings of a study done in in Nepal (24) and in Singapore (3). These findings suggest that nursing schools in Addis Ababa, Ethiopia consider integrating EBNP into their curricula, and that health care organizations provide EBNP as continuing staff development.

The study showed that most of the respondents have a good level of knowledge about EBNP. About 264 (52.5%) of nurses are knowledgeable and the rest 239 (47.5%) scored below the mean value and are not knowledgeable. Knowledge has significant association with implementation of EBP (AOR = 3.51, 95% CI: 2.33, 5.29). Those who are knowledgeable were implementing EBNP 3.5 times than who are not knowledgeable about EBP. According to the study done in Gondar, knowledge was a factor significantly associated with utilization of EBP (10,25).

Further, the findings of this study showed that the majority of the nurses perceived that they were adopting EBNP when implementing nursing care. The recognition of patients' preferences as a component of EBNP has been documented in the literature (26,27). Similarly, the consideration of expert opinion, which is often associated with practice experience, has been acknowledged as an integral part of EBNP (27). This study also noted that participants perceived having good skills on information technology. This finding is consistent with in which nearly all the participants rated themselves as having good computer and internet skills. Similarly, also found that most of the respondents had positive perceptions of having information technology skills (28).

In this study, 55.27% of the nurses had positive attitude. There was also a positive attitude 2.90 (AOR = 2.90, 95% CI: 1.94, 4.35) towards EBNP. A study conducted in Singapore found more than 64% of the nurses expressed a positive attitude toward EBNP (24). The finding of this study

shows that a large percentage (41.6%) of the respondents agreed that their workload is too high to keep up to date with all new evidence. This finding is in agreement with other studies in which most of the respondents indicated that nurses are too busy to appraise and incorporate the findings of research into their nursing practice (12). This study also found that most of the respondents did not believe that evidence-based practice has limited application. This may imply that the nurses are positive regarding the benefits of EBP in nursing care and/or have awareness or a good understanding of EBP.

In this study, nursing leaders have no significant difference with nursing staff in perception towards implementation of EBNP. This finding was contradicted the study in USA which resulted nurses in management positions significantly differed with staff nurses in perception. This may be related with those nurse in managerial position may have managerial skill and more access to training on EBNP (29).

The odds of presence of perceived supportive administration of Nurses towards the implementation of EBNP was 1.54 (AOR = 1.54, 95% CI: 1.03, 2.36) times than non-supportive administration. Similarly, from the study in Addis Ababa supportive nurse managers was a factor associated with the implementation of EBP (9). The supportive administration of nurses to improve their information technology skills to enable them retrieve relevant evidence to inform their nursing practices has been documented as a useful EBP strategy An environment with a positive culture, good leadership and adequate manpower is beneficial to EBP. In such an atmosphere, nurses will be able to provide highly effective and cost-effective health care to the consumers based on sound evidence.

Access to published research articles in working area has 1.51 (AOR = 1.51, 95% CI: 1.005, 2.26) times more perceived EBP than non-accessible to published research articles. The evidence-based movement has emphasized the application of research findings into clinical practice. Poorly informed decision making is one of the main reasons services can fail to be delivered in an optimal way and can also contribute to variations in practice which make services less efficient, ineffective and inequitable

Valuable resources continue to be used for practices that are out of date, have no demonstrable benefit or are even harmful, while interventions that have been shown to be both inexpensive and

effective have not been widely implemented. The provision of care in the Hospital is widely demanding and requires high level critical thinking and decision-making skills inherent in the nursing profession there by demanding the use of EBP for nursing. The Nursing midwifery council (NMC) Code: Professional standards of practice and behavior for nurses and midwives, states that it is the responsibility of each nurse and midwife to maintain their knowledge and skills and to practice within the best available evidence. International Council of Nurses (ICN) has obliged nurses to participate actively in research and applying this research to develop EBP (13).

This study revealed that statistically significant negative association between hospitals the nurses' work and implementation of EBNP. However, those nurses working in **Ras desta and Yekatit 12** were 31.2 % (AOR =0.31, 95% CI: 0.165, 0.59) and 43.6% (AOR = 0.44, 95% CI: 0.23, 0.83) less likely to have a good perception towards EBP as compared with SPPMMC. This might be due to supportive administration, the good work place and government support towards the EBNP in SPPMMC than the other public hospitals in Addis Ababa.

In contrast to other studies, educational status, attending the training related to EBNP, internet access, access to organizational guidelines, supportive administration, cooperative staff and having confidence to implement EBNP were not associated with the good perception towards EBNP (9,10,30).

Strengths and Limitations of the Study

However, this study is not without limitations. **First**, since this study was based on self-report, Nurses perception towards the implementation of EBNP practice may be overestimated due to social desirability bias. **Secondly**, the sample for this study included only nurses from selected tertiary public health sector, depriving them of the opportunity to compare with the private sector, where the environment and working conditions are different. However, a comparison of public and private hospitals could reveal the extent and manner in which environmental factors influence the implementation of EBNP. Another limitation is that only clinical nurses working in secondary and tertiary health care departments were included, thus limiting the opportunity to compare with nurses whose nature of work differs as general or primary hospitals are not included due to limited resource.

7. Conclusion and Recommendations

7.1. CONCLUSION

This study revealed that majority of nurses in public hospitals in Addis Ababa had good knowledge about evidence-based practice. The knowledge level, attitude, supportive administration, and access to published research articles in working area were positively associated with nurses' perception towards the implementation of Evidence-based Nursing Practice whereas the hospital the nurses work for was negatively associated with nurses' perception towards the implementation of evidence-based nursing practices.

7.2. RECOMMENDATION

Based on the finding of this study, the following recommendations were made for the concerned stakeholders as follows:

To Addis Ababa Health Bureau , Addis Ababa Public Health and Emergency Management Directorate and FMOH.

The bureau should adjust the EBNP program and give direction for all hospitals towards training provision on EBNP. Building nurses "EBNP competencies through either by giving in-service training as **continuous professional development** would improve knowledge on the implementation of evidence based nursing practice among nurses.

To Hospitals:

Hospitals' management should make available evidence-based updated **guidelines, hard copy and soft copy** of **current literature improve facilities like internet access and giving tutorials** on how to search new evidence related to EBNP in the work setting. Hospitals should have **policy and protocols** which promote knowledge of nurses about evidence based nursing practice. The management office of each hospital should develop strategy for building EBNP competencies through proper training and workshops. Nursing managers should design an appropriate strategic plan by considering the facilitators and barriers to enhance the knowledge about EBP.

To Researchers:

Further researches are needed on perception towards the EBNP and its associated factors.

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10. INFORMATION SHEET AND INFORMED VOLUNTARY CONSENT FORM

10.1 Informed Voluntary Consent Form for Heads of Institutions English version

Good morning/ good afternoon/ good evening

My name is I am working as a data collector for the study being conducted in this hospital by Mr. Muktar Kedir who is studying for his master's degree in general public health at SPHMMC. I kindly request you to lend me your attention to explain you about the study and your institution being selected as the study setting.

1. The study/project title

Nurse's perception towards evidence-based practice implementation and associated factors in governmental hospitals of Addis Ababa City, central Ethiopia.

2. Purpose/aim of the study

The finding of this study can be used as a guide by providing basic information for nurse managers, hospital administrators, and Addis Ababa health bureau to take appropriate intervention to enhance the implementation of evidence-based practice. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's program in General public health for the principal investigator.

3. Procedure and duration

I will collect data through a self-administered questionnaire which has five parts that will be distributed for the nurses to fill and return back. This will take about 15-20 minutes.

4. Risks and benefits

The risk of participating in this study is very minimal, but only taking a few minutes from nurse's time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the hospital and responsible bodies.

5. Confidentiality

The information that will be provided will be kept confidential. There will be no information that will identify the participants in particular. The finding of the study will be general for the study community and will not reflect anything particular of individual person. The questionnaire will

be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

6. Rights

Participation for this study is fully voluntary. The participants have the right to declare to participate or not in this study. If they decide to participate, they have the right to withdraw from the study at any time and this will not label them for any loss of benefits which they otherwise are entitled. They do not have to answer any question that they do not want to answer.

7. Contact address

If there are any questions or enquires any time about the study or the procedures, please contact:

Principal investigator: mobile phone +251910804594, Email muktar222kedir@gmail.com

Institutional health research Ethics Review committee (IHRERC): office phone _____
or P.O.Box ____, Addis Ababa Ethiopia

8. Declaration of informed voluntary consent

I have read the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that participants have the right to withdraw from the study at any time or not to answer any question that they do not want. I am also informed that the hospital has the right to stop this study from being conducted if any misdeeds and unethical procedures are observed during the data collection process in the hospital's premises. Therefore, I declare my voluntary consent on behalf of hospital management to allow this study to be conducted in the hospital with my initials (signature).

Name and signature of head of the hospital

Name and signature of data collector.....

10.2 ANNEX

Annex I. English Version Questionnaire

Perception of nurses towards evidence-based practice implementation questionnaire

Part I. Socio-demographic characteristics related questions

S.no	Questions	Response
101	What is your sex?	1. Male 2. Female
102	How old are you?	 yrs
103	What is your marital status?	1. Single 2. Married 3. Divorced 4. Widowed
104	Year of experience	yrs
105	In which hospital you are currently working?	1. SPMMC 2. Ras desta 3. Yekatit 12 4. St. Peter 5. Zewuditu
106	In which unit you are working now?	1. Surgical ward 2. Medical ward 3. ICU 4. Obs/gyni ward 5. Pediatrics ward 6. OPD 7. Emergency

107	What is your current highest educational status?	1. Diploma 2. Degree 3. Masters
108	What is your current level of position?	1. Staff nurse 2. Head nurse

Part II Questions on nurse's perception of evidence based practice implementation

S.no	Question	Strongly Disagree(1)	Disagree(2)	Neutral(3)	Agree(4)	Strongly Agree(5)
	What is your perception for the following questions? Please tick the one that describes your best perception.					
	I am able to.					
201	Identify clinical issues/problems.					
202	Translate a clinical issue/problem into a well-formulated clinical question.					
203	Distinguish between different types of questions (e.g., intervention, prognosis, harm, and cost-effectiveness).					
204	Conduct online searches (using databases and web search engines).					

205	Relate research finding to my clinical practice and point out similarities and differences.					
206	Use a checklist to assess research articles.					
207	Read a research report and have a general notion about its strength and weaknesses					
208	Evaluate the application of intervention and identify areas of improvement					
209	Apply an intervention based on the most applicable evidence					

Part: III Questions on nurse's knowledge of evidence based practice implementation

S.no	Question	Yes	No
301	What is EBP to you? I believe I am adopting EBP when I implement nursing care and make clinical decision based on:		
301.1	Patient's subjective and objective data		
301.2	Information from text books		
301.3	Previous experiences of health care professionals (e.g., nurses, doctors, physiotherapist)		
301.4	Research findings		

301.5	Patient's value/preference		
302	EBP involves a series of steps from identifying the clinical question, finding the answer/evidence, assessing the validity of evidence, to applying it if clinically suitable.		
303	EBP is a process of making decisions based on scientifically proven evidence		
304	The best and quickest way to find evidence is by reading textbooks or asking experienced colleagues.		
305	Evidence from all published articles in scientific journals can be used in EBP.		
306	Do you have research skill?		
307	Do you have Information technology skill?		
308	Do you have the ability of monitoring and reviewing of practice skills?		
309	Do you have the ability of converting your information needs in to a research question?		
.nm,v310	Do you have awareness of major information types and sources?		
311	Do you have the ability to identify gaps in your professional practice?		
312	Do you have the knowledge of how to retrieve evidence?		
313	Do you have the ability to analyze critical evidence against a set standard?		
314	Do you have the ability to determine how valid (cloth to the		

	truth) the material is?		
315	Do you have the ability to determine how useful(clinically applicable) the material is?		
316	Do you have the ability to apply information to individual cases?		
317	Did you share ideas and information with colleagues?		
318	Did you disseminate new ideas about care to colleagues?		
319	Do you have the ability to review your own practice?		

Part: IV Questions on nurse's attitude of evidence based practice implementation

S. no	Question	Strongly disagree(1)	Disagree(2)	Neutral(3)	Agree(4)	Strongly agree(5)
	What is your attitude towards the following questions? Please tick on the one that describes your attitude.					
401	I like people questioning my clinical practices, which are based on established methods.					
402	I'm not preferred using more traditional methods instead of new approaches.					
403	I believe most research articles are relevant to my daily practice					

404	I believe evidence-based practice (EBP) has not limited utility					
405	I believe my workload is not too high to keep up to date with all new evidence					

Part: V Questions on factors associated with nurse's perception of evidence-based practice implementation

S. no	Questions	Yes	No
501	Have you attend any training course on Evidence based practice?		
502	Do you have internet access in your work setting?		
503	Do you have the access to organizational information (guidelines, protocols)?		
504	Are there sufficient resources to implement evidence based practice?		
505	Is the administration supportive to implement evidence based practice?		
506	Are staffs you are working with cooperative to implement evidence based practice?		
507	Do you have access to published research articles in your working area?		
508	Are you confident enough to implement evidence based practice?		
509	For how many patients do you care per shift? Write In number	 patients	

Thank you!!!

Declaration

I declare that the proposal comprises my own work. In compliance with internationally accepted practices, I have acknowledged and cited all materials used in this work. I understand that non adherence to the principles of academic honesty and integrity, Misrepresentation of any fact or source will constitute sufficient ground for disciplinary action by the University and can also evoke penal action from the sources which have not been properly cited or acknowledged.

Name of the student: Muktar Kedir (BPharm)

Signature: -----

Date of submission: -----

Approval by the Academic Advisors

This thesis proposal will have been submitted to SPHMMC for examination with my approval.

Advisor's Name:

1. MR. TAKELE GEZAHEGN (MPH, ASSISTANT PROFESSOR) Signature: _____

Date: _____

2. MR. SAMSON ZEGEYE (MPH) Signature: _____

Date: _____