
ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF EMERGENCY AND SURGICAL NURSING

# EVIDENCE-BASED PRACTICE UTILIZATION AND ITS ASSOCIATED FACTORS AMONG NURSES WORKING AT EMERGENCY DEPARTMENT OF SELECTED PUBLIC HOSPITALS, ADDIS ABABA, ETHIOPIA, 2024

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# RESEARCH PROJECT

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This is to certify that the thesis entitled ``Evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024 is submitted in partial fulfillment of the MSC with specialization in Emergency Medicine and critical care nursing to the Graduate program of the college of health sciences of Addis Ababa University and has done by Mekuanint Kassie under my supervision. Therefore, I recommend that the student has fulfilled the requirements and hence hereby can submit the thesis to the department.

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Declaration

I thus declare this MSc thesis is my original work, that it has not been submitted for a degree at any other university, and that all sources of material used in this thesis have been properly acknowledged.

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## LIST OF ACRONYMS AND ABBREVIATION

| | |
|---|---|
| AOR | Adjusted odds ratio |
| CI | Confidence interval |
| EBP | Evidence-based practice |
| EBPU | Evidence-based practice utilization |
| ETB | Ethiopian birr |
| OR | Odd ratio |
| PI | Principal investigator |
| SPSS | Statistical package of the social science |
| WHO | World health organization |

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# ABSTRACT

**Background:** -Evidence-based practice utilization (EBPU) is described as the use of up-to-date, reliable, and pertinent evidence in healthcare decision-making practice, such as study findings, professional experience, and updated standard guidelines. EBPU is designed to prevent biases and to support clinical utilization of the latest and most recent, comprehensive studies for understanding clinical decision making.

**Objective:** -The aim of this study was to assess evidence-based practice utilization and its associated factors among nurses working in the emergency departments of selected public hospitals, Addis Ababa, Ethiopia, 2024

**Methods and Materials:** -An institution-based cross-sectional study design was conducted on evidence-based practice utilization and its associated factors among nurses working in the emergency department of selected public hospitals. A Simple random sampling technique was used. The required data was collected using self-administered questionnaire that was adapted and modified. The questionnaire contains six parts and 59 items. Binary logistic regression was applied to assess the association between the dependent variable and independent variables. Then variables with P value less than or equal to 0.25 were fitted to multivariable analysis's and finally, a variable with p-value less than 0.05 were considered factors associated with utilization of evidence-based practice.

**Result:** -A total of 233 respondents participated with a response rate of 96.6%. The majority of the participants were females (n = 130, 57.8%), and their median age was 30 years. This study showed that 54.2% and 44.9% had good knowledge and evidence-based practice utilization respectively. Sex (AOR = 0.4309), level of education (AOR = 6.786), level of position (AOR = 13.191), level of knowledge (AOR = 3.801) and unavailability of relevant literature (AOR = 3.316) were variables significantly associated with evidence-based practice utilization.

**Conclusion:** - The findings of this study show that 55.1 % of nurses had poor evidence-based practice utilization**.** sex, level of education, level of position, knowledge, and unavailability relevant literature, were variables significantly associated with evidence-based practice.



**Keywords:** -Evidence-based practice, evidence-based practice utilization

# 1. Introduction

## 1.1. Back ground

Evidence-based practice utilization is described as the use of up-to-date, reliable, and pertinent evidence in healthcare decision-making practice, such as study findings, professional experience, and updated standard guidelines(1-3). It has been around for twenty-six years until EBP was started, then the first publication on EBP released in 1992(3).

EBP is a method that uses recent logical scientific research to make informed decisions. It is a clinical practice that involves analyzing and synthesizing recent scientific findings to connect relevant research evidence to clinical expertise and patient preferences(4, 5). Utilizing recent clinical research findings will improve patient treatment outcome, stimulate the development of new therapies, and promote healthcare delivery standards(6, 7).

Healthcare providers must understand and apply evidence-based practices, realize their applications, and approach their own practice with an objective perspective. Professionals will face difficulties in delivering best practices with their skills(1, 3). EBP serves as a crucial tool in the health system, enhancing care consistency and knowledge generation, but lacks evidence to support its effectiveness in improving health outcomes and patient satisfaction(8, 9).

EBP) is a vital to improve patient outcomes by reducing pain, length of stay, overcrowding and stress. Also, it improves nurses' autonomy and confidence in decision-making, ensures that nursing practice remains relevant with new interventions and care guidelines. Additionally, it provides scientifically grounded research, ncourages collaborative decision-making with patients during care planning and enhances critical thinking (3, 10, 11).

EBPU is designed to prevent biases and to support clinical utilization of the latest and most recent, comprehensive studies for understanding clinical decision making(7, 12, 13). It is also believed that EBP might decrease healthcare expenditures through decreasing the use of inefficient testing, therapies, and medications(14) .

Health care is evolving rapidly due to technological advancement, client understanding, professional expertise, and payment patterns, emphasizing the need for evidence-based treatment methods(12, 15).

EBP, a global trend, is gaining popularity due to the increasing availability of instruments for scientific information gathering, including publishing processes, smart phones, and decision-making technology(16-18).

EBPU in low-income countries faces challenges due to lack of standards and limited integration of EBP training in medical schools and beyond(3, 19-22). Medical intervention often relies on personal experiences and outdated recommendations, leading to insufficient quality care that is time-consuming, costly, and resource-intensive(23-25).

## 1.2. Statement of the problem

EBPU demand is being bolstered by global organizations, prompting further advancements(26). Most nurses relied on the opinions of experienced nurses rather than utilizing the latest data(27). The need for the highest possible standard of care and meticulous resource management increased greater demands on nurses to provide EBP. The increasing supply of studies and knowledge about the accessibility of advanced medical care, consumer demands for the highest level of treatment, and increased health-care costs encourage policymakers across the world to support EBP. As a result, EBP is a vital component of providing high-quality healthcare(27-29)

In United States, Canada, and United Kingdom, EBP is widely accepted(30). The governing bodies and populations in high-income nations understand the outcome measurements as well as the efficiency of EBPU in the public sector(30). Strategies based on evidence are believed to have a significant impact on results in low-income nations. Whenever these nations were to issue an appeal for attention to build an EBP for health professionals, stronger EBPU in their health care systems can greatly enhance the delivery of healthcare by addressing on EBPU challenges(17, 30). Most commonly mentioned challenges are the shortage of time and inadequate ability to obtain high-quality studies. Furthermore, there has been a lack of communication among researchers and policymakers, as well as better connections and competencies(31-33). Difficulties for EBPU across low- and middle-income nations' healthcare systems encompass a lack of resources, an inadequate healthcare system, and confined involvement(27, 28)

According to WHO, the use of research findings is restricted in Africa to educational and academic institutions, and there exists a shortage of information about how to enhance high-quality healthcare delivery, standards of care, and quality lifestyles through EBPU(29, 34).

Globally, there has been a deficit in existing standards and studies related to EBP. Additionally, most of the variables influencing EBPU are not well defined, requiring the completion of a global study. Numerous actions, including training and educational sessions on utilization study, enhanced patient information, updated clinical decision-making, and improved outcomes. Organizations should use experienced professionals who understand current updated standard guidelines to ensure evidence-based quality health care. But it's questionable how this evidence will be utilized(26).

## 1.3. Significance of the study

This study will provide baseline knowledge about EBPU and associated factors towards its application among nurses working at emergency department of public hospitals. The study is important to ensure the best nursing care standard and strong scientific understanding. Adherence to EBP recommendations for preventing overcrowding, cost, and complications in emergency department ultimately improving patient outcomes.

The study will also be more crucial for hospitals and emergency health administrators, as well as other concerned bodies, in order to take the necessary actions, such as giving training for emergency personnel, auditing the organization's resources and, prioritizing, and making decisions based on the findings.

Additionally, it will also be important for policymakers to evaluate the EBPU of nurses working in emergency department as well as provide input during policy-making. Furthermore, the study's findings will include pertinent recommendations for additional information. It also provides baseline data about EBPU among nurses working at emergency departments. Finally, the findings of this study will serve as baseline data for other researchers and possibly be used by responsible stakeholders.

# 2. Literature review

## 2.1. Utilization of evidence-based practice

Health care providers must utilize EBP, realize its application, and approach both their own practice and the information at hand with an objective perspective. Professionals are going to discover it's challenging to offer best practices with these abilities(1, 3). EBP, the gold standard in nursing practice, is currently found to be insufficiently utilized by nurses in several countries.

In Norway, a cross-sectional study was conducted among 358 nurses working at specialty hospitals for the treatment of cancer. The majority of nurses depended on their personal experiences rather than scientific data when providing treatment, and their practice of EBP was very limited(29). A cohort study in Australia; the use of EBP was 33.3%(36). And a descriptive cross-sectional study conducted in Nepal, 49% of nurses use EBP in health care delivery(38).

A descriptive study, qualitative and quantitative method of data collection techniques was done in Kenya 53.6% of the respondents had good EBPU(34). A case study was carried out that used quantitative and qualitative methods to gather data in Zambia, 54.3% of the participants had good EBPU(39). A descriptive and analytical cross-sectional study was done in Ghana 25.3% of the respondents had good EBPU(40).

In a cross-sectional study conducted in the Amhara, two-thirds of the participants EBPU score was less than 60% (3) and 33.2% of all individuals had an EBPU score between 60 and 80%, while 1.6% had a score higher than 80% (3). The total mean score of the EBPU scale for the participants was 55.2%, which indicated poor EBPU (3). Another study conducted in the Amhara region, Oromia region, SNNPR and Addis Ababa found that 55%(41) ,51.8% (42),52.4%(7) and 58.1%(28) of the respondents had good EBPU respectively. A study conducted in northwest Ethiopia found that 47% of EBP were utilized(43). Another institutional-based cross-sectional study design was conducted in southwest Ethiopia, 36.2% of respondents had good EBPU(22).

## 2.2 Factors associated with evidence-based practice utilization

### 2.2.1 Socio-demographic factors

A cross-sectional study carried out at Hauk eland university hospital in Norway; younger nurses with fewer years of experience considered that lack of time was a greater barrier(17). A study conducted in Midwestern United States rural community hospital nurses and leaders observed that many hospital nurses lacked fundamental knowledge of EBP. Furthermore, these nurses may not notice criteria for excellent studies(44).

A case study was carried out in Zambia, that used quantitative and qualitative methods to gather data, 77.2% were female, 54.4% were between 26 and 35 years old, and 45.5% of them had 3–4 years of experience (38). A study conducted in Ghana revealed that nurses' educational backgrounds and their involvement in clinical studies, showed that more educated a nurse is, the more knowledgeable EBPU (40).

In a study conducted at Amhara hospitals, demographic factors like age and marital status were linked to EBPU. Younger age groups (21–30 years) were more likely to utilize EBP than older age groups. Marital status is also significant with EBPU. It was stated that participants who were single in marital status were 66.2% more likely (AOR = 1.662, 95% CI: 1.089, 2.536) to have good EBPU(41). In another cross-sectional institutional-based study design conducted at St. Paul's hospital and public hospitals in Jimma Zone, sex was statistically associated with EBPU. Male nurses were 4.65 and 2.4 (AOR = 2.401, 95% CI = 1.296, 4.448) times more likely to utilize EBP respectively(28, 45). A cross-sectional Study design was conducted in TASH, knowledge has significant association with EBPU. Those who have good knowledge was utilizing EBP 3 times than who have poor knowledge about EBPU(24).

In a cross-sectional institutional-based study conducted at St. Paul's hospital, educational status and work experience were statistically significant. Nurses whose educational status was a master's degree were 2.78 times and whose work experience were greater than 5 years were 6.83 times more likely to utilize EBP(28). but in study conducted in southern Ethiopia, nurses who had worked for less than 5 years were 1.8 times more likely to have EBPU compared to those who had worked for more than 10 years(13). There is also another study in the South Region, nurses who were single in marital status were 66.2% more likely to utilize EBP compared to married nurses (13) , and in public hospitals in Jimma Zone, educational status and knowledge about EBPU were statistically significant. BSC nurses were 3.2 (AOR=3.186, 95%CI=1.634, 6.210) and knowledge

about EBP 2.084 (AOR=2.084, 95% CI = 1.118,3.886) times more likely to utilize EBP than diploma nurses(45).

### 2.2.2 Individual factors

A cross-sectional study was done in Zahedan City, South East Iran. The most important individual factors to EBPU were lack of time to read literature (83.7%), lack of ability to work with computers (68.8%), and insufficient proficiency in the English language (62.0%). Age, educational level, job experience, and employment status were significantly associated with barriers to EBPU(46). A quantitative research design conducted in South Africa stated that individual barriers to EBP include lack of familiarity, perceptions, access to information, inadequate evidence sources and resistance to change(25).

A survey conducted at Hauk eland university hospital in Norway revealed a substantial relationship between EBP capabilities and information sources used, with nurses with stronger skills using research papers more frequently than others(17).

According to research conducted in Singapore, nurses who expertise were more confident to utilize EBP. Nurses who obtained EBP training indicated feeling more confident in utilizing EBP. Adequate time is the most crucial component for nurses to utilize EBP. To address these challenges, formulate clinical inquiries, explore for evidence, evaluate it critically, utilize a solution, and assess its success(27).

An institutional-based cross-sectional study conducted in South Nations and Nationalities of Ethiopia region referral hospitals, 77% of the respondents did not take EBP training, 42% of them had no research experience, and 49.5% of them had no interpretation the research findings. About 53.9%, 51.1% and 50.4% of them had good knowledge, favorable attitude towards EBPU and effective communication skills respectively (13). In a cross-sectional study conducted in the north-west of Ethiopia, 60.2% of the participants lack of confidence in their capacity for assessing the level of research; 47.7% reported being unable to identify accepted research papers, and 50.1% stated that they couldn't find the most effective materials for EBPU. On the other hand, 85.7% were able to efficiently look for information and construct concise questions to address the patient's issue (76.3%) (5).

### 2.2.3. Institutional factors

An analytical cross-sectional study was conducted in Zahedan City, South East Iran, 56% of the challenges to EBPU were due to organizational factors. The most organizational challenges to EBPU were lack of human resources, lack of accessibility to internet, work load, and lack of access to library with nursing research's(46).

In a cross-sectional study conducted in SNNPR referral hospitals, nurses with internet access and standard guidelines were 1.7 and 1.8 times more likely to utilize EBP than others (13). A study conducted in Amhara region the absence of guidelines, hospital protocols, and books were the most important factors in EBPU (3).

In a cross-sectional institutional-based study conducted at St. Paul's Hospital, the presence of guidelines was significantly associated with the EBPU. Nurses who had guidelines were 1.24 (AOR = 1.24, 95% CI = 1.04–5.32) times more likely to utilize EBP than those who did not have (28). In a study conducted at Amhara region referral hospitals, 490 (61%) nurses responded that EBP guidelines were available at the work area. However, almost half (47.2%) of the respondents stated they had no internet access to utilize EBP. Likewise, 409 (61%) and 367 (54.7%) stated insufficient time and the absence of a nurse manager to facilitate EBPU in the workplace. In addition, 54.5% and 54.2% of them reported that there is no library in the hospital and no computer in their work area or department, respectively (41). On the other side, the most commonly mentioned challenges include a lack of training on EBPU (81.2%), insufficient resources (e.g., a scarcity of computers and internet access) (79.3%), and difficulty identifying updated guidelines and protocols (64.4%). Nearly half of the participants (49.6%) expressed difficulty in understanding the current national treatment standards and protocols (5).

## 2.3. Conceptual frame work

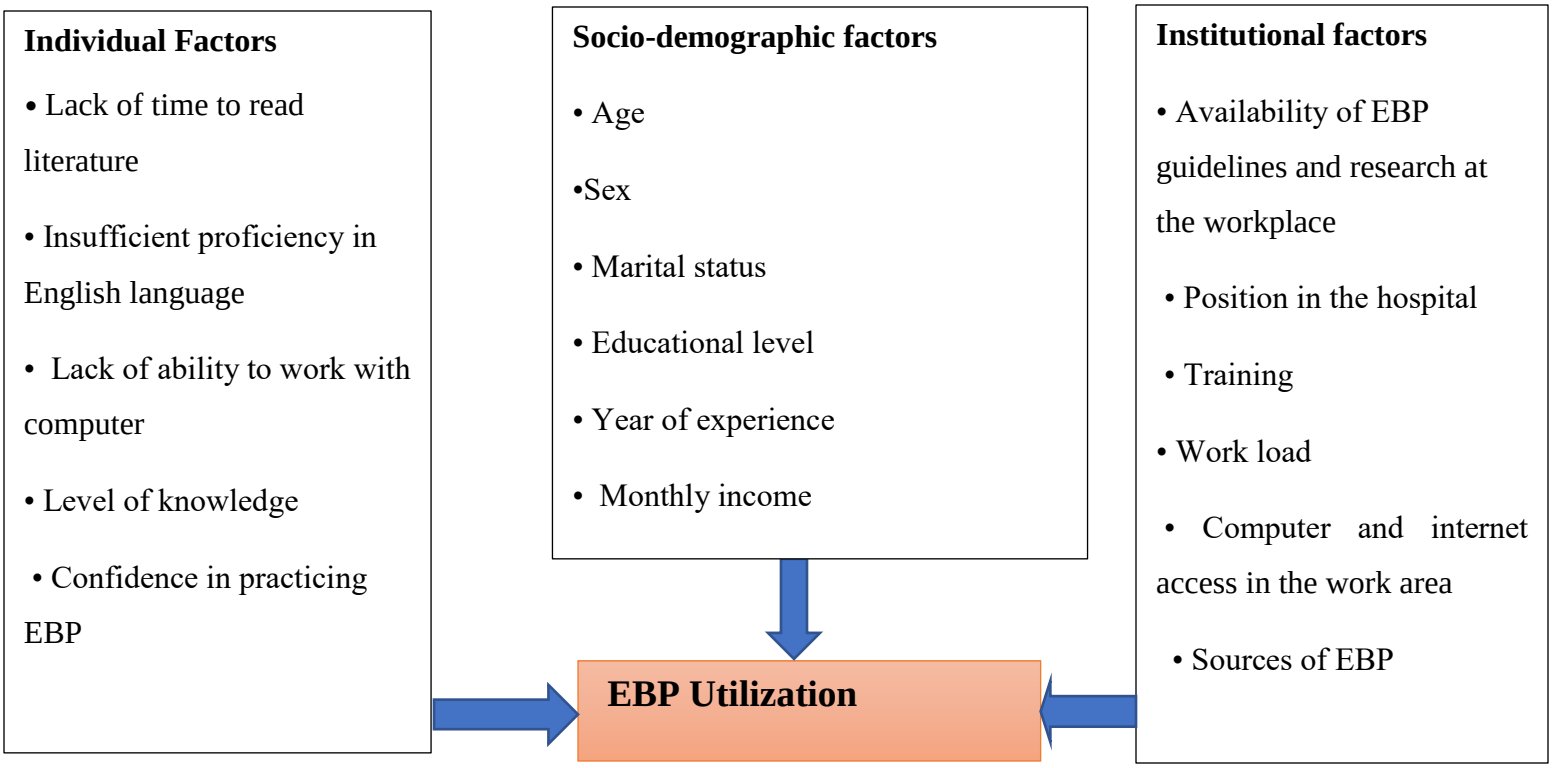


**Figure 1. Conceptual frame work for evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024(7)**

# 3. Objectives

## 3.1. General objective

• Assess evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024

## 3.2. Specific objectives

• Assess evidence-based practice utilization among nurses working at emergency department of selected public hospitals.

• Identify factors associated with evidence-based practice utilization of nurses working at emergency department of selected public hospitals.

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# 4. Methodology

## 4.1. Study area and study period

The study was conducted in Six selected public hospitals of Addis Ababa from March 14 to April 14, 2024. Addis Ababa is capital city of Ethiopia, with estimated population of 8,938,683 in an area of 540 square kilometers. The city has 13 public hospitals.

Tikur Anbessa Specialized Hospital, is the largest referral hospital in Ethiopia. It was established in 1964, and is now the main teaching center for both clinical and preclinical training of most disciplines. It is also an institution where specialized clinical services that are not available in other public or private institutions are rendered to the whole nation. The various departments, faculties and residents under specialty training in the School of Medicine provide patient care in the hospital. In addition, almost all regional and federal hospitals in Addis Ababa are affiliated to the School of Medicine as clinical services and training sites.

St. Paul's Hospital Millennium Medical College, was built in 1969 (was named St. Paul General Specialized until 2008) by Emperor Haile Selassie in collaboration with the German Evangelical Church, as a source of medical care for underserved populations. Its mission is to provide comprehensive healthcare services, teach high quality medical education and meet the needs of the communities it serves through its advanced and affordable healthcare system.

Menelik II Referral Hospital, located near Jan Meda on Russia street, is a public health care hospital in Addis Ababa, and is one of the oldest modern hospitals in Ethiopia. Named after Emperor Menelik II, it was established in 1909, serving as a tertiary care hospital with specialized provision with capacity over 800 beds, 15,000 patients each day with over 2,300 staffs and offering specialties of some sorts: cardiology, neurology, oncology and other fields.

Zewditu Hospital is a hospital in central Addis Ababa, Ethiopia. It was built, owned and operated by the Seventh-day Adventist Church, was nationalized during the Dreg regime in about 1976. The hospital is named after Empress Zewditu, the cousin and predecessor on the throne of Emperor Haile Selassie. Today, Zewditu Hospital is operated by the Ministry of Health.

Tirunesh Beijing General Hospital was named after a famous Ethiopian Olympic gold medalist Tirunesh Dibaba during Beijing Olympics (China) and the Hospital is found in Akaki-Kaliti sub-city, Addis Ababa, Ethiopia. The Hospital serves about 2 million people.

Eka Kotebe General Hospital, which incorporates a mental institution in its premises, the hospital has provided health services for 116, 029 patients, of which 25 percent are mental disabled persons. It is equipped with 350 beds, of which 175 beds are for mentally disabled persons. The other health services, include emergency, psychotherapy, rehabilitation care, surgery, social services, family planning service.

## 4.2. Study design

An institution-based, cross-sectional study design was conducted to assess evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024.

## 4.3. Source population

The source population for this study was all nurses working at emergency department of public hospitals in Addis Ababa.

## 4.4. Study population

The study population for this study was selected nurses working at emergency department of selected public hospitals within the study period.

## 4.5. Eligibility criteria

### 4.5.1. Inclusion criteria

Nurses who have worked in the emergency department for 6 months and above were included.

### 4.5.2. Exclusion criteria

Nurses who are students, involuntary and not available during the study period due to different reasons were excluded.

## 4.6. Sample size and sampling procedure

### 4.6.1. Sample size determination

A single population proportion formula was used to determine sample size. Proportion of nurses on EBPU in their clinical practice (34.7%) was taken (3) and CI of 95% with a margin of error of 5% will be considered .

$$n = \frac{\left(\frac{Z\alpha}{2}\right)^2 P(1-P)}{d^2} \qquad n = \frac{(1.96)^2 0.347(1-0.347)}{0.05^2} = 348$$

**n** = sample size

**z@/2** = critical value for normal distribution at 95% CI

**d** = margin of error

**p** = proportion

Since the total population is less than 10,000 then, correction formula will be used,

nf = n/(1+n/N), nf = 348/ (1+348/542) = 212

N= total number of nurses working at ED of public hospitals in Addis Ababa (542).

Based on the above formula and after adding a 10% nonresponse rate, the final total sample size was 233 and data was collected from 233 nurses.

### 4.6.2. Sampling procedure and technique

**Step one**: six public hospitals were selected randomly (by lottery method) from a total of 13 public hospitals in Addis Ababa town for the study in order to address within the given resource (time, money and human power).

**Step two:** The sample size was proportionally allocated to each hospital. Based on the information given from each public hospital, the total number of nurses who are working in ED at each selected public hospital is 86, 82, 42, 35, 32, and 28 for

Tikur Anbessa Specialized Hospital, St. Paulo's Hospital Millennium Medical College, Zewditu Memorial, Eka Kotebe, Menelik II, and Tirunesh Beijing General Hospital respectively. Hence, the total number of nurses working in emergency rooms of selected public hospitals is 305.

Total sample size was allocated proportionally using stratified proportional allocation for each selected hospital using the formula below:

**ni**= $\frac{Ni \times n}{N}$

Where:

ni = Total sample size in each hospital

Ni = Total Number of nurses working at emergency room of each selected hospital

n = Total sample size determined in the selected hospitals (233)

N = Total Number of nurses working at emergency room in the selected hospitals (305)

Using the above formula, total sample size:

- For Tikur Anbesa specialized hospital (86 x 233/305) = 66
- For St. Paulo's Hospital Millennium Medical College (82 x 233/305) = 63
- For Zewditu Memorial Hospital (42 x 233/305) = 32
- For Eka Kotebe General Hospital (35 x 233/305) = 27
- For Menelik II Referral Hospital (32 x 233/305) = 24
- For Tirunesh Beijing General Hospital (28 x 233/305) = 21
- Finally, simple random sampling method was used to select the study participants in each stratum until the desired sample size fulfilled.

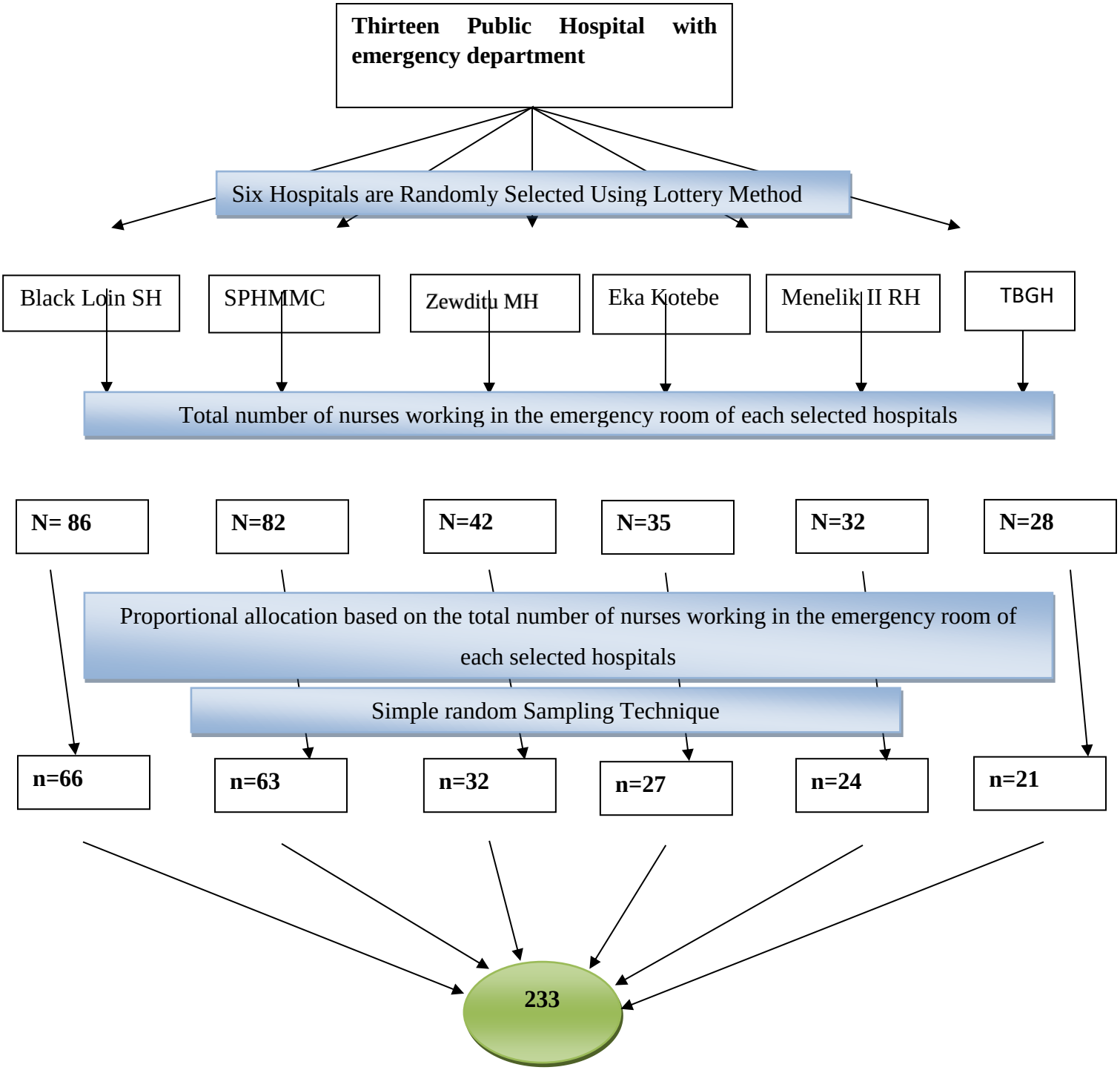


**Figure 2: - Schematic presentation of sampling procedure for evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024**

## 4.7. Measurement variables

### 4.7.1 Dependent variables

Evidence-based practice Utilization

### 4.7.2. Independent variables

**Socio-demographic factors**: age, Sex, marital status, educational level, year of experience and monthly income

**Individual factors**: Lack of time to read literature, insufficient proficiency in English language, Lack of ability to work with computer, level of knowledge, and confidence in practicing EBP

**Institutional factors:** availability of EBP guidelines and research at the workplace, position in the hospital, training, work load, computer and internet access in the work area, and sources for EBP

## 4.8. Operational definitions

**Good EBP utilization**

Nurses who score equal to and above the mean of EBPU score(7).

**Poor EBP utilization**

Nurses who score below the mean of EBPU score(7).

**Good knowledge**

Nurses who answered correctly and scored equal to or above the mean from the knowledge related questions(7).

**Poor knowledge**

Nurses who answered correctly and scored below the mean from the knowledge related questions(7).

## 4.9. Data collection tools and procedure

The required data was collected using self-administered questionnaire which was adapted and modified(7, 28, 47). The questionnaire contains six parts 59 items. Socio-demographic information, knowledge, sources, utilization, perceived barriers, facilitators for utilization of EBP. Socio-demographic information which has 7 items; nurses' knowledge of EBP which has 12 items; sources of EBP which has 9 items; utilization of EBP which has 6 items; barriers to utilization of EBP which has 20 items; facilitators for utilization of EBP which has 5 items.

Knowledge of EBP use 5-point Likert scale from strongly disagree to strongly agree, sources of EBP, utilization of EBP and facilitators for utilization of EBP has levels that ranged from never to always. Perceived barriers to utilization of EBP was constructed on a 5-point Likert scale, ranging from strongly disagree to strongly agree. For EBP utilization, six questions each had a 5-point Likert scale with a minimum score of 6 and a maximum score of 30. Knowledge of EBP scores, with a minimum score of 12 to a maximum of 60. Data was collected by three trained data collectors and a supervisor.

## 4.10. Data quality control

Questionnaires were pretested by using 10% of the final Sample size, from St, Petros specialized hospital then unclear and vague issues were corrected.

Supervisor and data collectors were trained for one day to ensure the quality of the data. The supervisor and data collectors were discussed how to approach

. The principal investigator was on-site to supervise the data collection process on a daily basis. Furthermore, throughout the data entry and cleaning processes, the consistency and completeness of all data was checked.

## 4.11. Data analysis and interpretation

The data was coded and entered into Epi Data version 4.6 software and exported to SPSS version 27 for further data analysis. Then standard residuals were analyzed to check for the presence of outliers and multi-collinearity by using the variance inflation factor, and variables with a variance inflation factor greater than ten were removed. Descriptive statistics mean for continues variables and frequencies and percentages for categorical variables were calculated. Binary logistic regression was applied to assess the association between the dependent and independent variables.

Then variables with a P value less than or equal to 0.25 was fitted to logistic multivariable analysis. Finally, a variable with a p-value less than 0.05 was considered a factor associated with EBPU. The findings of the study were interpreted and presented in the form of appropriate figures, tables, graphs, and charts.

## 4.12. Ethical clearance

Ethical clearance was obtained from the school of nursing and midwifery department of emergency and surgical nursing at Addis Ababa university. Letter of permission was submitted to medical directors of the study settings before the actual data collection period. Permission letter was provided to respective head nurses of emergency department head. Only codes were assigned to each paper, and no name was put on the list. Written consent was obtained from participants, and those who was not volunteer to participate was allowed to stop at any time during the questionnaire. All the collected data was kept in confidential, and no one except the members of the research team was have access to it. All paper and computer records of the study was kept in a secured place under lock, and the name and/or other personal information was not be disclosed in any report.

## 4.13. Result dissemination

The results of the study were submitted and presented to the school of nursing and the midwifery department of emergency and surgical nursing. Also, it will be submitted to Addis Ababa University's College of Health Sciences, the AAU College of Health Sciences library, and the hospitals where the study is conducted. It will also be presented in various local and international conferences and professional associations.

Finally, an effort will be made to publish the findings in national and international peer-reviewed journals so that the next generation of researchers could access them.

# 5. Result

## 5. 1. Socio-demographic profile of the participants

A total of 233 respondents participated with a response rate of 96.6%. The median were 30 years. Most of the respondents were within ranged 26-30 years (n=93, 41.3%). Females (n=130,57.8%). BSc level prepared (n= 197, 87.6%) and (n=95, 42.2%) of the participants had less than or equal to 5 years of working experience. 209 (92.2%) were staff nurse positions (Table 1).

**Table 1: - Socio-demographic profile of nurses working at emergency department (N=225)**

| Variables | Category | Frequency (n=225) |
|---|---|---|
| Age | <= 25 yrs. | 39(17.3%) |
| | 26-30 yrs. | 93(41.3%) |
| | 31-35 yrs. | 63(28.0%) |
| | >35 yrs. | 30(13.3%) |
| Sex | Male | 97(43.1%) |
| | Female | 128(56.9%) |
| Marital status | Married | 107(47.6%) |
| | Single | 96(42.7%) |
| | Widowed | **7(3.1%)** |
| | Divorced | 15(6.7%) |
| experience | <= 5 yrs. | 95(42.2%) |
| | 6-10 yrs. | 94(41.8%) |
| | 11-15 yrs. | 29(12.9%) |
| | >15 yrs. | 7(3.1%) |
| Level of Education | BSC | 197(87.6%) |
| | MSc and above | 28(12.4%) |
| Level of position | Staff nurse | 204(90.7%) |

| | | |
|---|---|---|
| | Coordinator | 21(9.3%) |
| Monthly income | <= 5250 ETB | 4(1.8%) |
| | 5251-7800 ETB | 100(44.4%) |
| | 7801-10900 ETB | 101(44.9%) |
| | >10900 ETB | 20(8.9%) |

## 5. 2 Knowledge of Evidence-based practice among nurses

From the total respondents, (n=122,54.2%) had good knowledge of EBPU (Figure 1).

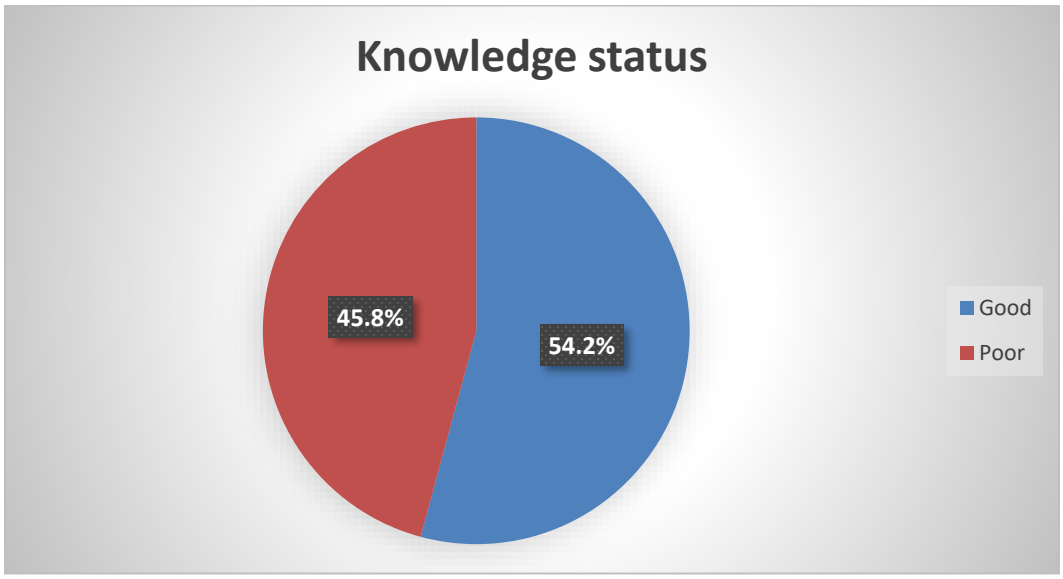


**Figure 1: - Knowledge of nurses working at emergency departments (N=225)**

## 5.3. Evidence-based practice utilization among nurses

Ninety three (41.3%), 81 (36.0%) 79 (35.1%), 79 (35.1%), 81(36.0 %) and 90 (40%) nurses often asked clinical questions related to their nursing care practice, looked for information, research, and evidence to support their nursing practice, critically appraised any evidence that answered their clinical questions, use or integrate current evidence or guidelines to guide nursing care practice, evaluate the outcome of using current evidence, and share or teach others about new ways of practicing (current guidelines to guide nursing), respectively(Table2). The total number of nurses who had good utilization of evidence-based practice was 101(44.9% (CI: 95%, 39.0% to 52.0%)) (Figure2).

**Table 2: - Frequency of evidence-based practice utilization (N=225)**

| Activities | Never | Sometimes | Usually, | Often | Always |
|---|---|---|---|---|---|
| **Asked clinical questions related with your nursing care practice** | 3(1.3%) | 26(11.6%) | 65(28.9%) | 93(41.3%) | 38(16.9%) |
| **Look for information, research, evidences, to support your nursing practice** | 6(2.7%) | 25(11.1%) | 75(33.3%) | 81(36.0%) | 38(16.9%) |
| **Critically appraised any evidence which answers your clinical questions** | 9(4.0%) | 47(20.9%) | 58(25.8%) | 79(35.1%) | 32(14.2%) |
| **Use/integrating current evidence/guideline to guide the nursing care practice over** | 4(1.8%) | 30(13.3%) | 69(30.7%) | 79(35.1%) | 43(19.1%) |
| **Evaluate the outcome of using current evidence** | 13(5.8%) | 44(19.6%) | 58(25.8%) | 81(36.0%) | 29(12.9%) |
| **Sharing or Teaching others about new way of practice current guideline to guide the nursing** | 6(2.7%) | 35(15.6%) | 47(20.9%) | 90(40.0%) | 47(20.9%) |
| **(1) Never, (2) sometimes (<1/month), (3) usually (one to two times/month), (4) often (weekly), (5) always (several times/week).** | | | | | |

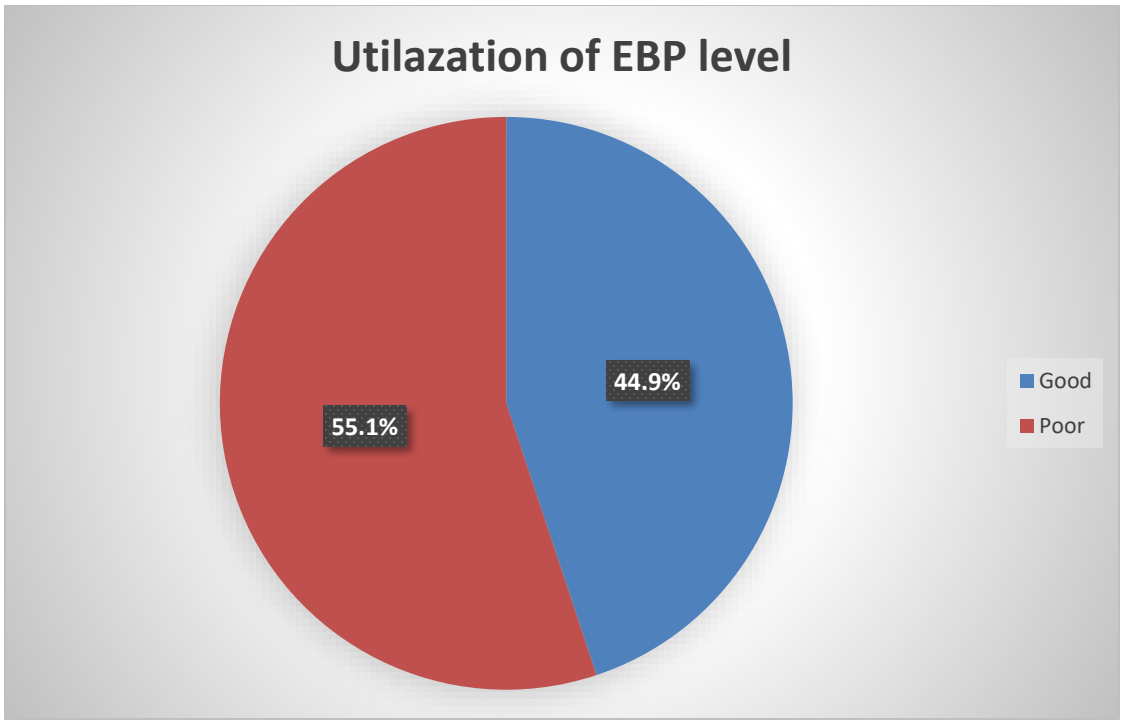


**Figure 2: - Utilization of evidence-based practice (N=225)**

## 5.4. Individual and institutional barriers to the utilization of evidence-based practice

There are many individual and institutional barriers that hinder EBPU. From this study, around 44.9% of the respondents responded that a lack of autonomy to change practices is a major barrier to utilize EBP. There were also 47.1%, 41.3%, 42.7%, and 37.8% of the respondents who often agreed that they had an inadequate understanding of research terms, an inability to understand statistical terms used in research, difficulty judging the quality of research, and an inability to properly interpret the results of research, respectively. Around 26.2%, 32.9%, and 36.9% of the participants always agreed that insufficient time at the workplace to utilize EBP, heavy workload at the workplace to utilize EBP, and insufficient resources were barriers to utilizing EBP, respectively (Table3).

## Table 3: - Barriers of evidence-based practice utilization

| Barriers | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|
| Lack of autonomy to change practice | 30(13.3%) | 32(14.2%) | 39(17.3%) | 101(44.1%) | 23(10.2%) |
| Inadequate understanding of research terms | 28(12.4%) | 35(15.6%) | 36(16.0%) | 106(47.1%) | 20(8.9%) |
| Inability to understand statistical terms used in research | 21(9.3%) | 46(20.4%) | 42(18.7%) | 93(41.3%) | 23(10.2%) |
| Difficulty in judging the quality of research | 24(10.7%) | 29(12.9%) | 47(20.9%) | 96(42.7%) | 29(12.9%) |
| Inability to properly interpret the results of research | 20(8.9%) | 36(16.0) | 46(20.4%) | 85(37.8%) | 38(16.9%) |
| Insufficient time at workplace to implement EBP | 15(6.7%) | 32(14.2%) | 29(12.9%) | 90(40.0%) | 59(26.2%) |
| Heavy workload at workplace to implement EBP | 7(3.1%) | 36(11.6%) | 25(11.1%) | 93(41.3%) | 74(32.9%) |
| Insufficient resources | 7(3.1%) | 20(8.9%) | 29(12.9%) | 86(38.2%) | 83(36.9%) |
| The relevant literature is not available | 5(2.2%) | 20(8.9%) | 41(18.2%) | 101(47.6%) | 52(23.1%) |
| No confident in judging the quality of research | 9(4.0%) | 24(10.7%) | 56(24.9%) | 99(44.0%) | 37(16.4) |
| Lack of authority in the work place to utilize EBP | 14(6.2%) | 29(12.9%) | 41(18.2%) | 102(44.9%) | 40(17.8%) |
| Insufficient proficiency in English language | 81(36.0%) | 46(20.4%) | 26(11.6%) | 49(21.8%) | 23(10.2%) |

| | | | | | |
|---|---|---|---|---|---|
| The nurse is isolated from experienced colleagues with whom to discuss the research | 14(6.2%) | 51(22.7%) | 37(16.4%) | 90(40.0%) | 33(14.7%) |
| Physicians are not cooperative with the utilization of EBP | 9(4.0%) | 28(12.4%) | 46(20.4%) | 98(43.6%) | 44(19.6%) |
| Unjustified research conclusions to nursing | 5(2.2%) | 38(16.9%) | 43(19.1%) | 90(40.0%) | 49(21.8%) |
| Other staffs are not supportive of implementation | 7(3.1%) | 30(13.3%) | 53(23.6%) | 96(42.7%) | 39(17.3%) |
| Unclear implications of EBP for practice in nursing | 6(2.7%) | 28(12.4%) | 47(20.9%) | 112(49.8%) | 32(14.2%) |
| EBP has little benefits for nurses | 116(51.6%) | 40(17.8%) | 18(8.0%) | 35(15.6%) | 16(7.1%) |
| The culture of my team is+ not receptive to EBP | 5(3.1%) | 39(17.3%) | 52(23.1%) | 102(45.3%) | 25(11.1%) |
| Uncertainty to believe the results of the research working to nurses' practice | 7(2.2%) | 30(13.3%) | 63(28.0%) | 89(39.6) | 38(16.9%) |

### 5.5. Sources of evidence-based practice utilization

Around 34.7% of respondents always used their personal experience for EBPU; 70 (31.1%) used it often from a colleague; 40% never used the class room; 36.1%, 28.4%, 31.1%, and 32.9% sometimes used hospital protocols, national guidelines, training, and the internet for EBPU; while 29.8% and 31.1% usually used nursing journals and text books, respectively (Table4).

**Table 4: - Sources of evidence-based practice utilization**

| Sources | Never | Sometimes | Usually, | Often | Always |
|---|---|---|---|---|---|
| Class room | 90(40.0%) | 70(31.1%) | 34(15.1%) | 27(12.0%) | 4(1.8%) |
| Hospital protocols | 55(24.4%) | 83(36.9%) | 46(20.4%) | 30(13.3%) | 11(4.9%) |
| National guidelines | 61(27.1%) | 64(28.4%) | 44(19.6%) | 45(20.0) | 11(4.9%) |
| Training | 51(22.7%) | 70(31.1%) | 50(22.2%) | 38(16.9%) | 16(7.1%) |
| Colleague | 31(13.8%) | 35(15.6%) | 59(26.2%) | 70(26.2% | 30(31.1%) |
| Personal experience | 9(4.0%) | 15(6.7%) | 35(15.6%) | 88(39.1%) | 78(34.7%) |
| Nursing journals | 16(7.1%) | 46(20.4%) | 67(29.8%) | 67(29.8%) | 29(12.9%) |
| Internet | 21(9.3%) | 74(32.9%) | 61(27.1%) | 38(16.9%) | 31(13.8%) |
| Textbooks | 21 (9.3%) | 58(25.8%) | 70(31.1%) | 48(21.3%) | 28(12.4%) |

## 5.6. Facilitators for evidence- based practice utilization

Around one-third 73 (32.4),70 (31.1%) and 79 (35.1%) of the respondents strongly agreed that enhancing administrative support, improving research knowledge and giving adequate training were the most perceived facilitators EBPU respectively. (Figure 3)

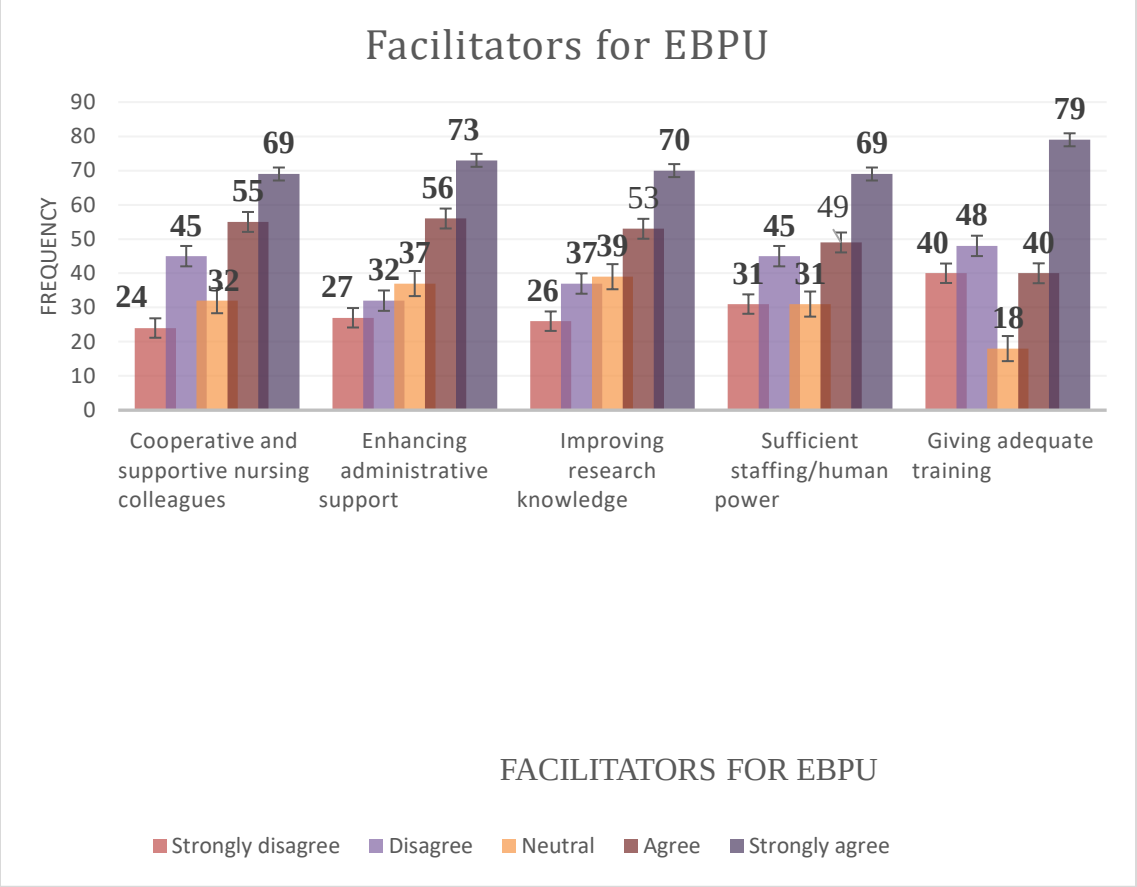


**Figure 3: - Facilitators for evidence- based practice utilization**

## 5.7. Factors associated with utilization of evidence-based practice

Bivariable and multivariable logistic regression were tested to check variables associated with EBPU. In binary logistic regression analysis, age, sex, year of experience, level of education, level of position, monthly income, knowledge level, national guidelines, colleague, personal experience, journals, text books, lack of autonomy, insufficient time, heavy work load, insufficient resource, unavailability of relevant literature, lack of confidence in judging the quality of research, the nurse being isolated from an experienced colleague, EBP having little benefits for nurses, and the culture of the team being not receptive to EBPU were significantly associated with EBPU at p-value <0.25 and eligible for multivariable logistic analysis.

In multivariable analysis, sex, level of education, level of position, level of knowledge, and the relevant literature are not available where variables are significantly associated with EBPU at a p-value < 0.05.

About 57% of male nurses were less likely to utilize EBP when compared to female nurses (AOR = 0.4309, 95% CI: 0.201, 0.923). The likelihood of experiencing EBPU among MSc and above nurses was 6.786 times (AOR = 6.786, 95% CI: 1.141, 40.352) higher than that of those with a BSc level.

Coordinator nurses were 13.191 times (AOR = 13.191, 95% CI: 1.843, 94.414) more likely to utilize EBP when compared to staff nurses. Nurses who had good knowledge about EBP were 3.801 times (AOR = 3.801, 95% CI: 1.700–8.498) more likely to have good utilization of EBP when compared to nurses who had poor knowledge about EBP. Furthermore, nurses who agreed that the relevant literature was unavailable were 3.316 times (AOR = 3.316, 95% CI: 1.334, 8.246) more likely to have poor EBPU than those who did not agree was a barrier to EBPU.

**Table 5: - Summary of factors associated with EBPU**

| Variables | Category | EBPU | | COR (95%) CI) | AOR (95% CI) | P value |
|---|---|---|---|---|---|---|
| | | Good | Poor | | | |
| **Sex** | Male | 55(24.4%) | 42(18.7%) | 2.334(1.360-4.006 | 0.4309(0.201-0.923) | 0.030** |
| | Female | 46(20.4%) | 82(36.4% | 1 | 1 | |
| **Level of education** | BSc | 75(33.3%) | 122(54.2%) | 1 | 1 | |
| | MSc and above | 26(11.6%) | 2(0.9%) | 21.147(4.878-91.668) | 6.786(1.141-40.352) | 0.035** |
| **Level of position** | Staff nurse | 82(36.4%) | 122(54.2%) | | | |
| | Coordinator | 19(8.4%) | 2(0.9%) | 14.134(3.206-62.318) | 13.191(1.843-94.414) | 0.010** |
| **knowledge level** | Poor | 26(11.6%) | 77(34.2%) | 1 | 1 | |
| | Good | 75(33.3%) | 47(20.9%) | 4.726(2.659-8.398) | 3.801(1.700-8.498) | 0.001** |
| **Unavailability relevant literature** | Disagree | 18(8.0%) | 48(21.3%) | 1 | 1 | |
| | Agree | 83(36.9%) | 76(33.8%) | 2.912(1.559-5.439) | 3.316(1.334-8.246) | 0.010** |

Key: - 1=Reference category

*= Significant at P < 0.25

** = Significant at P < 0.05

## 6. Discussion

The purpose of this study was to assess EBPU and its associated factors among nurses working in the emergency departments of selected public hospitals. The findings of this study showed a low level of EBPU and that sex, level of education, level of position, knowledge, and unavailability of relevant literature at the work area are variables significantly associated with EBPU.

In this study, 44.9% of nurses had good EBPU. This finding is comparable to the study done in Nepal, Iran, and north-west Ethiopia, in which 49% (38), 41% (37) and 47% (43) of participants had good EBPU during care provision, respectively. But this finding is lower when compared to the studies conducted in Kenya, Zambia, the Amhara region, the Oromia region, SNNPR, and Addis Ababa, which found 53.6% (34), 54.3% (39), 55% (41), 51.8% (42), 52.4% (7), and 58.1% (28) respectively. The possible reason for those discrepancies might be the differences in health care system level, availability of resources, sources, and knowledge level of the participants. In this study, about 45.8% of the participants had poor knowledge.

This finding is higher when compared to previously reported findings in Australia, Ghana, and Southwest Ethiopia, which were 33.3% (36), 25.3% (40), and 36.2% (22) respectively. This is inconsistent and may be due to differences in study area and setting.

Of the three sets of variables computed to explain EBPU socio-demographic factors (sex, and level of education), individual factors (level of knowledge) and institutional factors (level of position and the relevant literature is not available) were found to affect EBPU.

In this study, sex is significantly associated with EBPU. This result is supported by a study conducted at St. Paul's Hospital (28) and in public hospitals in Jimma Zone (45). This study revealed that about 57% of male nurses were less likely to utilize EBP when compared to female nurses (AOR = 0.4309, 95% CI: 0.201, 0.923). In contrast, male nurses were 4.65 and 2.4 (AOR = 2.401, 95% CI = 1.296, 4.448) times more likely to utilize EBP at St. Paul's Hospital, Public Hospitals in Jimma Zone, respectively. But it is consistent with a study conducted in Zambia (40).The possible explanation could be that females were naturally talented at multitasking and had better performance in their working area.

The likelihood of experiencing EBPU among MSc and above nurses was 6.786 times (AOR = 6.786, 95% CI: 1.141, 40.352) higher than that of a BSc level.

This result is supported by a study conducted in Ghana (40), St. Paul's Hospital (28), and in public hospitals in Jimma Zone (45). This could be because nurses with higher qualifications were more

likely to use EBP than those with lower qualifications. This might be because the master's level was more technologically skilled, thus enhancing searching for more literature, or that they are more exposed to the incorporation of EBP in the curriculum and teaching programs than a bachelor of science.

This study revealed that, coordinator nurses were 13.191 times (AOR = 13.191, 95% CI: 1.843, 94.414) more likely to be utilized EBP when compared to staff nurses. This is supported by another study's public hospitals in Jimma Zone (45) and St. Paul's Hospital (28). The possible reason could be that coordinator nurses get opportunities for training and workshops.

This study revealed that having good knowledge of EBPU was 3.801 times (AOR = 3.801, 95% CI: 1.700- 8.498) more likely to have good EBPU when compared to nurses who had poor knowledge about EBPU. This result is supported by a study conducted in TASH (24), South Nations and Nationalities of Ethiopia Region referral hospitals (13) and public hospitals in Jimma Zone (45). The possible reason could be that knowledge about EBP may increase their skills and make them more confident in utilizing EBP. Additionally, most of our respondents were in the younger age group, who might be easily sharing information about EBP.

This finding showed that nurses who agreed that the relevant literature was not available were 3.316 times (AOR = 3.316, 95% CI: 1.334, 8.246) more likely to have poor EBPU than those who did not agree that the unavailability relevant literature was a barrier to EBPU. This study is consistent with other studies done in Kenya (30) and South Africa (25). The reason might be the availability of relevant literature in the work area; nurses could easily access it in the emergency room and provide scientific-based care without delay.

This study indicated that 40.0%, 41.3% and 38.2%) of respondents agreed that insufficient time, heavy workload and insufficient resources at workplace were most reported barriers respectively. The study's findings are lower than those in other countries like Iran(46) and Egypt(48) where respondents reported heavy workloads, insufficient time, and insufficient resources as barriers to utilizing evidence-based practice. This indicates that nurses working in

other countries reported barriers to EBPU than nurses working in this study area. The potential connection between knowledge about barriers to EBPU and one's year of work experience is significant. Key informants reported a lack of hospital library, updated guidelines, internet services, adequate training, and sufficient computers for nurses to update themselves.

This study found that 47.6%, 44.1%, 43.6%, and 42.7% of respondents agreed that the unavailability of relevant literature, a lack of authority in the workplace, and physicians and other staff who are not cooperative with EBPU were reported as barriers, respectively. These findings were slightly lower than other study findings, e.g., in Australia(36), where lack of authority and Physicians will not cooperate, and in Kenya(30), where relevant literature not available was reported as a barrier by the majority of the respondents, but similar to the study of South Africa(25), where Physicians were not supportive of EBPU. The study indicates that nurses in the current study area reported less likely barriers to utilizing EBP compared to nurses in other countries. The issue may be linked to nurses' lack of familiarity with EBPU, barriers to its use, and differing working experiences. Others may be poor communication between hospital management, nurses, physicians, and other health professionals, a lack of nurses' satisfaction, and some nurses lack of interest in self-updating.

This study revealed that 31.1% of respondents asked their colleagues, and 12.9% of them always use nursing journals as sources for EBPU. This is similar to study findings in Australia (36) where 26.6% of nurses asked their colleagues, and 8.7% of them read journals. The study indicates that most nurses prefer to receive information from their ward colleagues who possess superior knowledge and skills in performing various EBP activities. This could be due to a heavy workload or insufficient time to read various journals.

# 7. Strength and limitation of the study

## 7.1. Strength of the study

- The study had high response rate of 96.6%
- The results will serve as a benchmark for future researchers.

## 7.2. Limitation of study

- Self-administered questionnaire leading to personal errors.

# 8. Conclusion and recommendations

## 8.1. Conclusion

The findings of this study showed that 55.1% and 45.8% of nurses had poor EBPU and knowledge of EBPU, respectively. Lack of autonomy to change practice, inability to properly interpret the results of research, insufficient time at the workplace to utilize EBP, the relevant literature is not available, and physicians are not cooperative with EBPU at the work area were the major barriers reported by the respondents. Enhancing administrative support, improving research knowledge and giving adequate training were the most strongly agreed-upon facilitators for EBPU respectively. Generally, sex, level of education, level of position, knowledge, and unavailability relevant literature at work area, where variables are significantly associated with EBPU.

## 8.2. Recommendations

- The Federal ministry of health might enhance nurses' EBP capabilities through short-term training or by integrating EBP into the curriculum.
- Hospital administrators should improve internet access and avail EBPU guidelines in the work area.
- Nursing leaders and hospital administrators have the ability to overcome barriers to setting up EBPU by training nurses, offering time off, and modifying their work schedules.
- Further research is needed beyond other areas, since there is not much literature on the use of EBP in Ethiopia.
- Nursing educators are responsible for sharing information, abilities, and mindsets while also serving as facilitators of change in shifting the norm towards EBP.

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## 8. ANNEXES

### ANNEX 1: INFORMATION SHEET

**Title of the research project**: - Evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024

**Name of investigator**: - **Mekuanint Kassie (BSC)**

**Name of the organization**: - Addis Ababa university, college of health science, school of nursing and midwifery, department of emergency and surgical nursing

**Name of sponsor**: Addis Ababa University

**Introduction**: This information sheet will prepare the administration and emergency coordination office of selected public hospitals. The aim of the form is to make the above-mentioned office clear about the purpose of research, data collection procedures, and permission to conduct the research.

**Purpose of the research project**: - To assess evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024

**Procedure**: - In order to achieve the above objective, the study will obtain the necessary information from nurses.

**Risk:** Since the study will be conducted by taking appropriate information from nurses who work in the emergency room and, it does not inflict any harm on the participants. The name or any other identifying information will not be recorded on the questionnaire, and all information will be kept strictly confidential and in a safe place. The information retrieved will only be used for study purposes.

**Benefits**: The person will receive no direct benefit from the research. But it could have an indirect benefit for others because the health care planner gets information about evidence-based practice utilization and its associated factors, which will ensure proper care and treatment. Overall, the research will be of great direct benefit to health care planners and managers.

**Confidentiality**: - To ensure confidentiality, the data will be collected without the names of the participants, and the information collected from this research project will be kept confidential and stored in a file cabinet. In addition, it will not be revealed to anyone except the investigator, and it will be kept in a key-locked system with a computer password.

**Person to contact**: -This research project will be reviewed and approved by the institutional committee of Addis Ababa university, college of health science, school of nursing and midwifery, department of emergency and surgical nursing. If you have any questions, you can contact any of the following individuals: -

(Investigators and Advisors) and ask at any time what you want.

1. **Mekuanint Kassie**, Addis Ababa university, college of health science, school of nursing and midwifery, department of emergency and surgical nursing

   Principal investigator: cell phone +251922445953

   E-mail: - mekuanintkassie@gmail.com

2. **Aklilu Azazh** Addis Ababa university college of health sciences, (MD, Internist Emergency medicine and critical care professor)

   Advisor: cell phone +251911885586

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3. **Achamyelesh Tadele**, (Lecture, MSC in EMCCN), Addis Ababa university college of health science, school of nursing and midwifery, department of emergency and surgical nursing

   Advisor: Cell phone: +25134413165

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## ANNEX 2: INFORMATION CONSENT SHEET

Addis Ababa university, college of health science, school of nursing and midwifery, department of emergency and surgical nursing

### CONSENT FORM AND INTRODUCTION

My name is ---------- I am working research on evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals. Your name will not be written in this form and the information you give will be kept confidential. If you don't want to answer all of or some of the questions, you do have the right to do so. However, your willingness to answer all of the questions would be appreciated.

Would you participate in responding to the questions in this questionnaire?

Yes □ No □

Name of interviewer: ---------- signature ----------

Name of the supervisor ---------- signature--------- ---

Date of checking ----------

Remark: 1. Complete 2. Incomplete

## ANNEX 3: ENGLISH VERSION QUESTIONNAIRES

**Table 6: - English version questionnaires for Evidence-based practice utilization and its associated factors among nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024**

| **Part One: - Socio-demographic data of nurses working at emergency department towards evidence-based practice utilization in selected public hospitals Addis Ababa, Ethiopia, 2024** | | | |
|---|---|---|---|
| **S. №** | **Questions** | **Response** | **Remark** |
| 101 | Age in years | -------- | |
| 102 | Sex | 1. Male<br>2. Female | |
| 103 | Marital status | 1. Married<br>2. Single<br>3. Widowed<br>4. Divorced | |
| 104 | Year of experience | ---------- | |
| 105 | Level of education | 1. BSC<br>2. MSC and above | |
| 106 | Level of position | 1. Staff nurse<br>2. Coordinator | |
| 107 | Monthly income | ---------- | |

| **Part Two: - Knowledge of nurses working at emergency department towards evidence-based practice utilization in selected public hospitals Addis Ababa, Ethiopia, 2024** | | | | | | |
|---|---|---|---|---|---|---|
| **S. №** | **Questions** | Strongly disagree=1 | Disagree =2 | Neutral =3 | **agree =4** | **Strongly agree=5** |
| 201 | Aware of the concept of EBP in nursing | | | | | |
| 202 | Know how to utilize EBP sufficiently to change practice | | | | | |
| 203 | EBP involves the process of critically appraising research findings to the basis for clinical decisions | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 204 | EBP focuses on the best current available research without considering clinical experience | | | | | |
| 205 | EBP is suitable for making decisions about the care of patients rather than for policymaking. | | | | | |
| 206 | Patients' preferences should be prioritized over clinicians' preferences in making clinical decisions | | | | | |
| 207 | EBP fills the gap between research theory and practice when utilized | | | | | |
| 208 | EBP improves professionals' understanding of research methodology | | | | | |
| 209 | There is a need of EBP in nursing | | | | | |
| 210 | Improving access to summaries of evidence is appropriate to encourage EBP | | | | | |
| 211 | Application of EBP is cost-effective to the healthcare system. | | | | | |
| 212 | EBP is important for nurse educators and also for those in the clinical area | | | | | |

**Part Three: - Sources of evidence-based practice utilization among nurses in selected public hospitals Addis Ababa,**

**Ethiopia, 2024**

| S. № | Please respond to the next items by indicating the number 1, 2, 3, 4, or 5 that comes closer to what extent you trust with sources that you use for EBP utilization | Never = 1 | sometimes= 2 | Usually, =3 | Often =4 | Always = 5 |
|---|---|---|---|---|---|---|
| 301 | Class room | | | | | |
| 302 | Hospital protocols | | | | | |
| 303 | National guidelines | | | | | |
| 304 | Training | | | | | |
| 305 | Colleague | | | | | |
| 306 | Personal experience | | | | | |
| 307 | Nursing journals | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 308 | Internet | | | | | |
| 309 | Textbooks | | | | | |
| **Part four: EBP activity questions to assess the level EBP utilization of nurses working at emergency department in selected public hospitals Addis Ababa, Ethiopia, 2024** | | | | | | |
| S. № | Questions (How often have you personally involved in the following activities?) | Never=1 | Sometimes=2 | Usually =3 | Often =4 | Always=5 |
| 401 | Asked clinical questions related with your nursing care practice | | | | | |
| 402 | Look for information, research, evidences, to support your nursing practice | | | | | |
| 403 | Critically appraised any evidence which answers your clinical questions | | | | | |
| 404 | Use/integrating current evidence/guideline to guide the nursing care practice over | | | | | |
| 405 | Evaluate the outcome of using current evidence | | | | | |
| 406 | Sharing or Teaching others about new way of practice [current guideline to guide the nursing care practice] | | | | | |
| **Part five: - Barriers of evidence-based practice utilization of nurses working at emergency department of selected public hospitals, Addis Ababa, Ethiopia, 2024** | | | | | | |
| S. № | Please respond to the next items by indicating the number 1, 2, 3, 4, or 5 that comes closer to how much you agree with barriers to utilization of EBP | Strongly disagree=1 | Disagree =2 | Neutral =3 | Agree =4 | Strongly agree =5 |
| 501 | Lack of autonomy to change practice | | | | | |
| 502 | Inadequate understanding of research terms | | | | | |
| 503 | Inability to understand statistical terms used in Research | | | | | |
| 504 | Difficulty in judging the quality of research | | | | | |
| 505 | Inability to properly interpret the results of research | | | | | |
| 506 | Insufficient time at workplace to utilize EBP | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 507 | Heavy workload at workplace to utilize EBP | | | | | |
| 508 | Insufficient resources (e.g. equipment, internet, computer, protocols, guidelines) to utilize EBP | | | | | |
| 509 | The relevant literature is not available | | | | | |
| 510 | No confident in judging the quality of research | | | | | |
| 511 | Lack of authority in the work place to utilize EBP | | | | | |
| 512 | Insufficient proficiency in English language | | | | | |
| 513 | The nurse is isolated from experienced colleagues with whom to discuss the research | | | | | |
| 514 | Physicians are not cooperative with the utilization | | | | | |
| 515 | Unjustified research conclusions to nursing | | | | | |
| 516 | Other staffs are not supportive of utilization | | | | | |
| 517 | Unclear implications of EBP for practice in nursing | | | | | |
| 518 | EBP has little benefits for nurses | | | | | |
| 519 | The culture of my team is not receptive to EBP utilization | | | | | |
| 520 | Uncertainty to believe the results of the research working to nurses' practice | | | | | |
| **Part six: - Facilitators for evidence- based practice utilization** | | | | | | |
| S. № | | Strongly disagree=1 | Disagree =2 | Neutral =3 | Agree =4 | Strongly disagree=5 |
| 601 | Cooperative & supportive nursing colleagues | | | | | |
| 602 | Enhancing administrative support like nurse managers | | | | | |
| 603 | Improving research knowledge | | | | | |
| 604 | Sufficient staffing/ human power | | | | | |
| 605 | Giving adequate training | | | | | |