



WOLKITE UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCE

DEPARTMENT OF NURSING

EVIDENCE BASED PRACTICE UTILIZATION AND ITS ASSOCIATED FACTORS AMONG NURSES IN WOLLAYTA SODO UNIVERSITY COMPRHENSIVE SPECIALIZED HOSPITAL AND HALABA KULITO GENERAL HOSPITAL, SOUTH ETHIOPIA, 2023.

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ABBREVIATIONS AND ACRONYMS

AICU	Adult Intensive Care Unite
BGH	Butajira General Hospital
BSc	Bachelor of Science
ETAT	Emergency Triage Assessment and Treatment
EBCP	Evidence Based Clinical Practice
EBNP	Evidence Based Nursing Practice
EBP	Evidence Based Practice
GP	General Practitioner
HKGH	Halaba kulito General hospital
HDU	Highly Dependent Unit
ICU	Intensive Care Unit
MSc	Masters Science
NICU	Neonatal Intensive Care Unit
PhD	Doctor of Philosophy
PS	Probable Sampling
RN	Registered Nurse
SC	Stabilization Center
SPSS	Statical Package for the Social Science
SNNPR	South Nation Nationalities Peoples Region
TASHA	Tikur Anbesa Specialized Hospital
USA	United States of America
WSUCSH	Wollayta Sodo University Comprehensive and Specialized Hospital

ABSTRACT

Background: Evidence-based practice is the thoughtful, concise, and prudent use of the most recent, best evidence when making decisions about the care of the specific patient. The EBP paradigm for healthcare professionals is an important means to improve the quality of patient care, but its implementation is still lacking.

Objective: To assess evidence-based practice utilization and its associated factors in Wollayta Sodo University Comprehensive & Specialized Hospital and Halaba Kulito General Hospital, South Ethiopia, 2023.

Methods: An institution-based cross-sectional study was conducted among nurses working in Wollayta Sodo University Comprehensive Specialized Hospital and Halaba Kulito general hospital, of south region from May 17 to Jun 18 2023. 418 BSc nurses was involved in the study. Simple random sampling technique was employed for the study. Self-administered questioners used to collect data. Data was collected by data collectors. Descriptive analysis was done. The collected data was entered to Epi data version 4.6 and analyzed using SPSS version 25 statistical software package. Bivariate and multivariate logistic regression was done. having a p value of <0.05 with Adjusted ORs together with its corresponding 95% CIs was taken to measure the level of significance of the association.

Results

From 418 proposed nurses, 382 of them completed the questionnaire giving 91.4% response rate. Of these, 56% of them had good evidence-based practice utilization. Variables including good knowledge (AOR =6.88: 95% CI: 4.324–10.942), EBP training (AOR = 1.78:95% CI: 1.11–2.855) and level of confidence (AOR = 2.19: 95% CI: 1.22–3.929) were found to be predictors of evidence-based practice utilization.

Conclusions

The study revealed that evidence-based practice utilization among nurses is relatively low. Nurses need to give attention to level of confidence along with their EBP; Hospitals need to manage to provide training about evidence practice which raises level of utilization.

Key words: Evidence based practice, Utilization, South, Ethiopia

1: INTRODUCTION

1.1 Background

Evidence-Based Practice (EBP) is an approach to a clinical practice whereby clinicians integrate current best evidence with their clinical expertise to make decisions for a specific client by considering his or her preferences and values [1]. As such, it is a decision-making process for practice through the conscientious, explicit, and judicious use of the best available evidence from multiple sources [2].

Evidence-based practice (EBP) is an approach that aims to improve the process through which high-quality scientific research evidence can be obtained and translated into the best practical decisions to improve health. The inter-professional model of EBP emphasizes shared decision-making within the context of the most important advances of the various health professions [3]. EBP, is the use of theoretical research-based findings in conjunction with reliable forms of evidence in clinical decision-making, which is currently essential in nursing practice to promote optimal patient outcomes by incorporating research findings, clinical experience, and patient preferences [4].

The EBP process basically includes five elements: formulating an appropriate question, performing an efficient literature search, critically appraising the best available evidence, applying the best evidence to clinical practice, and assessing outcomes of care, in fact, evidence alone is never sufficient to make a specific clinical decision about a specific patient. The clinician needs evidence plus good judgment, clinical skill, and knowledge of the patient's unique needs to apply evidence to a specific patient care situation [5].

Though EBP is used across various professions as an approach to professional practice, it is rapidly growing in the fields of nursing [6]. Evidence-based practice positively influences the practice of nurses and enables them to shift from tradition to scientific-based practice [7]. Similarly, it results in reduced costs, improved patient outcomes, and serves as a standard for quality patient care [8], increases patient and family satisfaction, and contributes to professional development [6]. Again, it results in high job satisfaction [9], increases working efficiency, and reduces overtime [10], and fills the gap between theories and practice [11].

1.2. Statement of the problem

the EBP paradigm for healthcare professionals is an important means to improve the quality of patient care, but its implementation is still lacking [12]. Much of the evidence to guide treatment practice on a global scale will not be produced by rigorous research studies [13].

Nurses have a positive attitude towards EBP, but only a small amount of practice, Although nurses understand EBP, they still choose not to pay attention to EBP for many reasons [14]. Even though research supports the point that EBP promotes high-value healthcare, nurses do not consistently implement EBP. Nurses' knowledge of EBP is moderate, and few nurses use EBP, which indicates that EBP is not the global standard of care [15]. This means that the barriers for nurses to use EBP are still high, therefore, nurses do not always use EBP [16].

Implementing EBP is challenging because it depends on senior leadership and individual nurses willingness to support practice in a rapidly evolving, research-based healthcare environment, restricted access to high quality information resources, deficiencies in their information literacy and computer abilities, attitudes toward research and nurses are not prepared for implementing EBP [17]. In recent years, there has been increased attention to evidence-based nursing practice. The number of systematic reviews and resources for evidence-based practice has also risen. Despite these factors, application of evidence to practice remains challenging for nurses as well as for other clinicians [18].

The five greatest barriers to evidence-based practice were insufficient time to find research reports, insufficient time to find organizational information (such as guidelines and protocols), lack of confidence in assessing the quality of research, difficulty in understanding English-language publications and insufficient time at work to implement changes in practice [19]. Several studies have attempted to analyze this phenomenon from different perspectives, such as the influence of knowledge management, attitudes, values or training in the process of knowledge transferrable into clinical practice [20].

The lack of support from health organizations for EBCP has also been explored, as well as barriers that experts believe prevent the utilization of research in clinical practice. [21]. The majority of research has been done on industrialized nations, although elements that may be more prevalent in developing nations like Ethiopia [22].

Evidence based practice in Africa is remaining in challenge. One reason for this challenge is Africa lag behind in research. Another obstacle is lack of funds. But some African countries like, South Africa, Botswana, Nigeria, Kenya Malawi and Egypt are in advocating EBP [23].

In the majority of Ethiopia, applying evidence-based practice in nursing is based on experience, tradition, intuition, common sense, and unproven beliefs. In many areas of nursing practice, there is a dearth of research-based evidence [24].

In general the focus of our study is to assess evidence based practice utilization and the existence of those factor that we have mentioned in the statement of problem in our study area and which are reported as common problem in developing country such as work experience, sufficient time, knowledge, Training, Confidence and use of guideline.

1.3. Significance of the study

Evidence-based practice requires making professional decisions based on systematically gathered evidence drawn from research and from experience and on the patients' desires and needs in a specific situation. EBP is crucial in the overall health care delivery system because it can help reduce escalating health care costs, save time, afford better patient outcomes, and provide nurses with more autonomy in their practice, (which can ultimately lead to greater job satisfaction and increased retention).

To build substantial support for EBP requires new evidence forms, new roles, new teams, new practice cultures, and a new field of science. Implementation of a practical approach to EBP should be considered, to assist staff nurses to evaluate evidence and then translate evidence into practice. Time, resources, and support from the nursing leadership are needed, along with collaboration between hospital leaders and academic nursing. Evidence based practice assists bedside nurses in decision making and accountability for their own practice and Care of the individual, policies and procedures, patient care management tools through improving Health care decisions and interventions.

Although the benefit is that evidence-based health services was be better able to meet the challenges of improving patient safety and the quality of services the implementation was seen as difficult due to different factors. Literatures on EBP in developing country especially Ethiopia is scarce. Since the factors are many and different in developing country than developed, the literatures were not representative.

Generally this study was significant for nurses to provide the highest quality of care in meeting the needs of patients and families as a whole specifically it improved patient outcomes and decrease health care costs. It was also act as additional information for anyone who wants to conduct additional research on the subject.

2. LITERATURE REVIEW

2.1. Evidence-Based Nursing Practice Utilization

According to a study from the Northwestern State University, only 48% of nurses 'use researches. The nurse's positions and educational backgrounds have an impact on how they see research. Research was viewed more favorably by nurses with master's degrees [25].

A study conducted by Sweden showed that 30% of RNs they compiled implement evidences whether clinical practice correspond to current knowledge [26].

The study conducted in Norway revealed that 34% Nurses carried out action related to evidence based practice in the last 8weeks [14].

A study conducted to South Africa Nurses Showed that, above half (52.4%) felt that they were good at their performing regarding EBNP [27].

In addition the study conducted at TASHA revealed that 57.6% of nurses use EBP in their clinical work [18].

Another study conducted in Amhara Regional Referral Hospitals revealed that 55% of nurses who had good EBP Utilization [7].

According to study conducted in Southwestern Ethiopia showed that 18.4% of nurses implemented EBP to low level, about 42% of nurses implemented EBP to medium level and 39.6% of nurses implemented EBP to high level [28].

The study conducted to West Shoa Zone finding Showed that 52.4% of participants were good EBP utilization [17].

2.2. Factors associated with utilizations of evidence-based nursing practice

2.2.1. Socio Demographic information

A study conducted in Spanish showed that variables consisted of being female were statically associated with evidence based practice utilization than being male, in addition to this being master degree was essential role of leadership in the process of implementation evidence into clinical practice [22].

According to a study from the Northwestern State University Show that, nurse's positions and educational backgrounds have an impact on how they see research, Research was viewed more favorably by nurses with master's degrees [25].

According to study conducted to Northern Israel revealed that being married was significantly associated with EBP than being single[29].

Another study conducted in TASHA showed that female staff nurses were significantly associated with EBP than being male nurses[18]. In addition to this study conducted in West Shoa Zone Showed that participants age greater than 30 years old were significantly associated with EBP than being less than the ages of 30 [17].

2.2.2. Individual variables

The studies conducted in England use of national guidelines and heavy workload were significantly associated for Implementing EBP [30].

Another study conducted in South Korea showed that being bachelor's degree in nursing were significantly associated with EBP than being diploma nurses [31].

Furthermore the study conducted in South Africa showed that participants having good attitude were significantly associated with EBP Utilization, Despite this approximately 52% of the respondents were indicated insufficient time to implement for EBP, while 36% of participants were agreed that they lacked confidence to change practice in to EBP [32].

In addition study conducted in Northwest Ethiopia showed that nurses having confidence in their decision-making in day-to-day clinical practice was significantly associated with EBP[4].

An institution-based cross-sectional study was conducted in Amhara Region Referral Hospitals showed that having less than 5–10 years' work experience was significantly associated with EBP utilization compared to those who had worked more than 10 years respect, in addition to this Nurses who had taken EBP training were significantly associated with EBP utilization compared with those who did not attend it [7].

According to study conducted in Southwest Ethiopia revealed that 58.6% of the respondents were diploma holders, 40.1% of the respondents were bachelor's degree in nursing and 1.3% of respondents were masters in nursing [28].

2.2.3 Psychographic Variables

According to study conducted in Australia being familiar with the term EBP were significantly associated to EBP utilization [33]. Another study conducted in China showed that having Lack of knowledge to implement EBP were significantly associated to EBP utilization [34].

The study conducted in Norway revealed that «Beliefs related to the value of EBP» was significantly associated to EBP utilization, which is 71.8% of the study respondents were scored highest in the subscale. [14].

A study conducted in Amhara Region Referral Hospitals showed that having good knowledge about EBP were significantly associated with EBP utilization compared to those who had poor knowledge [7]. Furthermore study conducted in University of Gondar showed that having staff culture towards EBP was significantly associated with EBP utilization compared to those who resist EBP utilization at work [35].

The study conducted in Northwest Ethiopia showed that being heard of the term evidence-based practice were significantly associated with EBP utilization. Which is 88.1% of the respondents were heard of the term evidence-based practice. Despite this approximately 58.3% of respondents were knew how to implement EBP in their work. However, 43.7% of respondents were difficulty understanding research articles, mostly due to problems with language and

trouble understanding epidemiology terms [36].In addition to this The study conducted in Northwest Ethiopia showed that having favorable attitude towards EBP were significantly associated to EBP utilization compared to those who had unfavorable attitude [4].

2.3. Conceptual Frame Work

Conceptual frame work developed by Evert Rogers in 1995 and then modified after review of different literature as shown in fig. below.

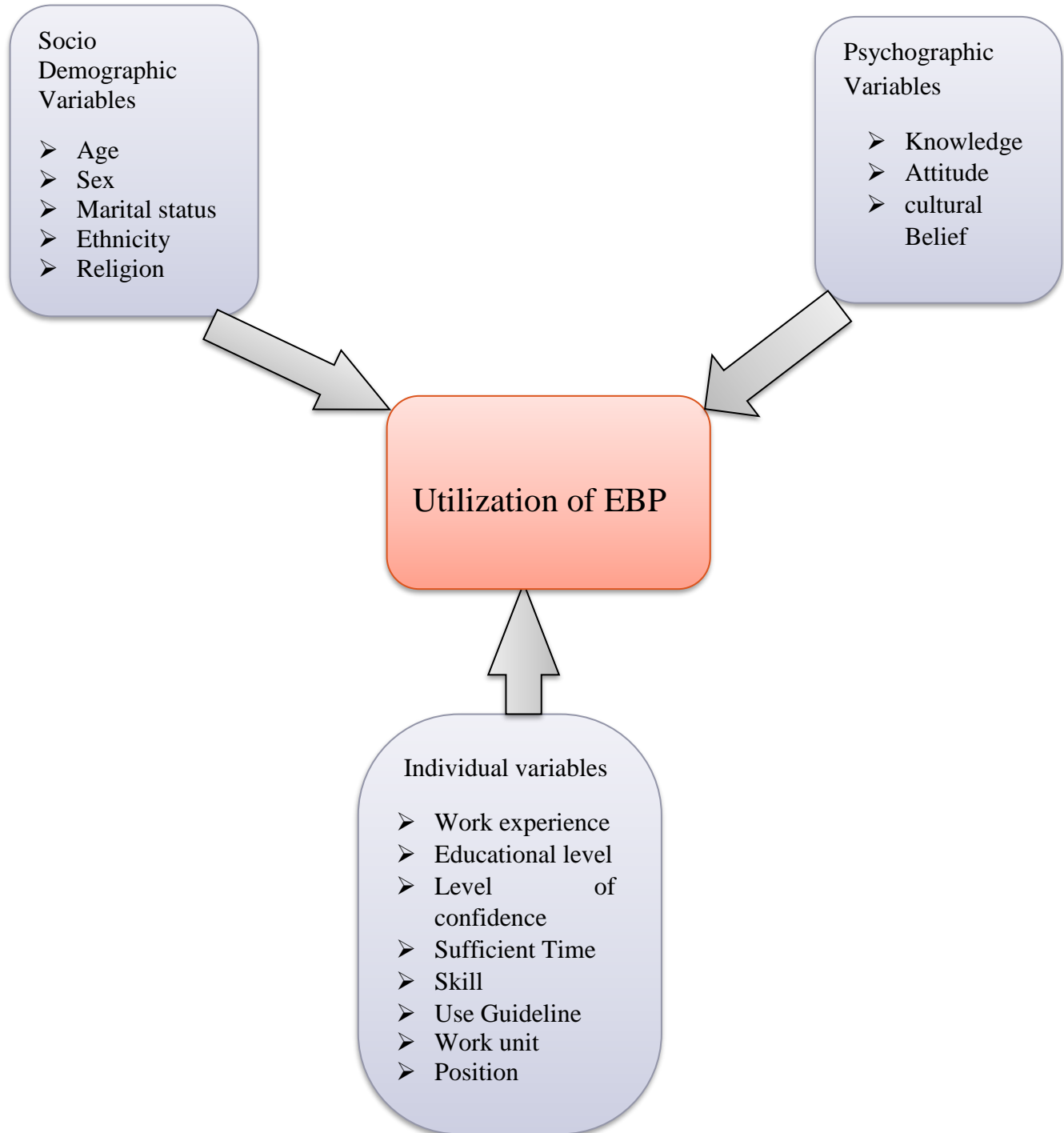


Figure 1: Conceptual frame work developed from different literature ([1], [34],[18], [17]).

3. OBJECTIVES OF THE STUDY

3.1 General objective

- ❖ To assess evidence-based practice utilization and its associated factors in Wollayta Sodo University Comprehensive Specialized Hospital and Halaba Kulito General Hospital, South Ethiopia, 2023.

3.2 Specific Objectives

- ❖ To describe the level of evidence-based nursing practice utilization in Wollayta Sodo University Comprehensive Specialized Hospital and Halaba Kulito General Hospital South Ethiopia, 2023.
- ❖ To identify the factors associated with the evidence-based practice utilization in Wollayta Sodo University Comprehensive Specialized Hospital and Halaba Kulito General Hospital among nurses South Ethiopia, 2023.

4. METHODS AND MATERIALS

4.1. Study Area and Study period

The study was conducted at Wollayta and Halaba Hospitals SNNPR.

Sodo town is a capital city to Wollayta zonal administration and 338 km away from Addis Ababa.

WSUCSH: The hospital has 20 specialists, 210 GP, 420 nurses (20 MSc, 357 BSc, and 43 diplomas), 210 midwifery and a total of 335 beds. Adult Medical ward has 59 beds; Pediatrics Medical and Surgical ward 43 beds, Adult surgical ward 26 beds, Gynecology 83 beds, Emergency ward 20 beds, Adult and Pediatric Orthopedic ward 24 beds, AICU 8 beds, NICU 17 beds, ETAT 10 and psychiatry ward 45 beds.

Halaba town is a capital city to Halaba zonal administration and 239.7 km away from Addis Ababa.

HKGH: The hospital has 10 specialists, 31 GP, 98 nurses (1 MSc, 75 BSc and 22 diplomas), 25 Midwifery, 11 HO and a total of 117 beds. Medical ward has 29 beds, pediatrics 38 beds, surgical ward 18 beds, gynecology 18 beds, NICU 15 beds, emergency 12, SC 7 and ICU 4 beds, and study design was implemented from March 01 - April 10, 2023.

4.2. Study design

An institution based cross sectional was implemented.

4.3. Source and Study Population

4.3.1. Source population

All nurses working in the Southern Ethiopia.

4.3.2. Study population

All selected BSc and above nurses.

4.4. Eligibility Criteria

4.4.1. Inclusion Criteria

All BSc nurses greater than 6 month of work experiences and above BSc nurses was part in the study.

4.4.2. Exclusion criteria

Nurses who were on maternity or annual leave;

Critically sick and unable to response during data collection;

Nurses who was involuntary to respond;

BSc nurses less than 6 month of work experience, and

Diploma (clinical) nurses were excluded.

4.5. Sample Size Determination

The sample size for this particular study was calculated using a single population proportion formula considering the assumption of 95% confidence level, margin of error (0.05), p (0.55) prevalence of nurses practiced EBP always in the study conducted at West Shoa Central Ethiopia [17].

$$n = (Z)^2 p (1-p)/d^2$$

$$n = (1.96)^2 (0.55) (0.45) / (0.05)^2$$

$$n = 380$$

10% of non-response rate was added. Finally 418study samples were needed for study.

n = Sample size

N = Study population

P = 0.55 prevalence

d = the margin of sampling error tolerated (0.05)

Z = standard score corresponding to 95% CI= 1.96

4.6. Sampling Procedures

The study was conducted in WSUCSH and HKGH. The WSUCSH has 372 nurses, HKGH has 75 nurses, then selected proportionally. Finally, simple random sampling technique was applied to take data from each hospital.

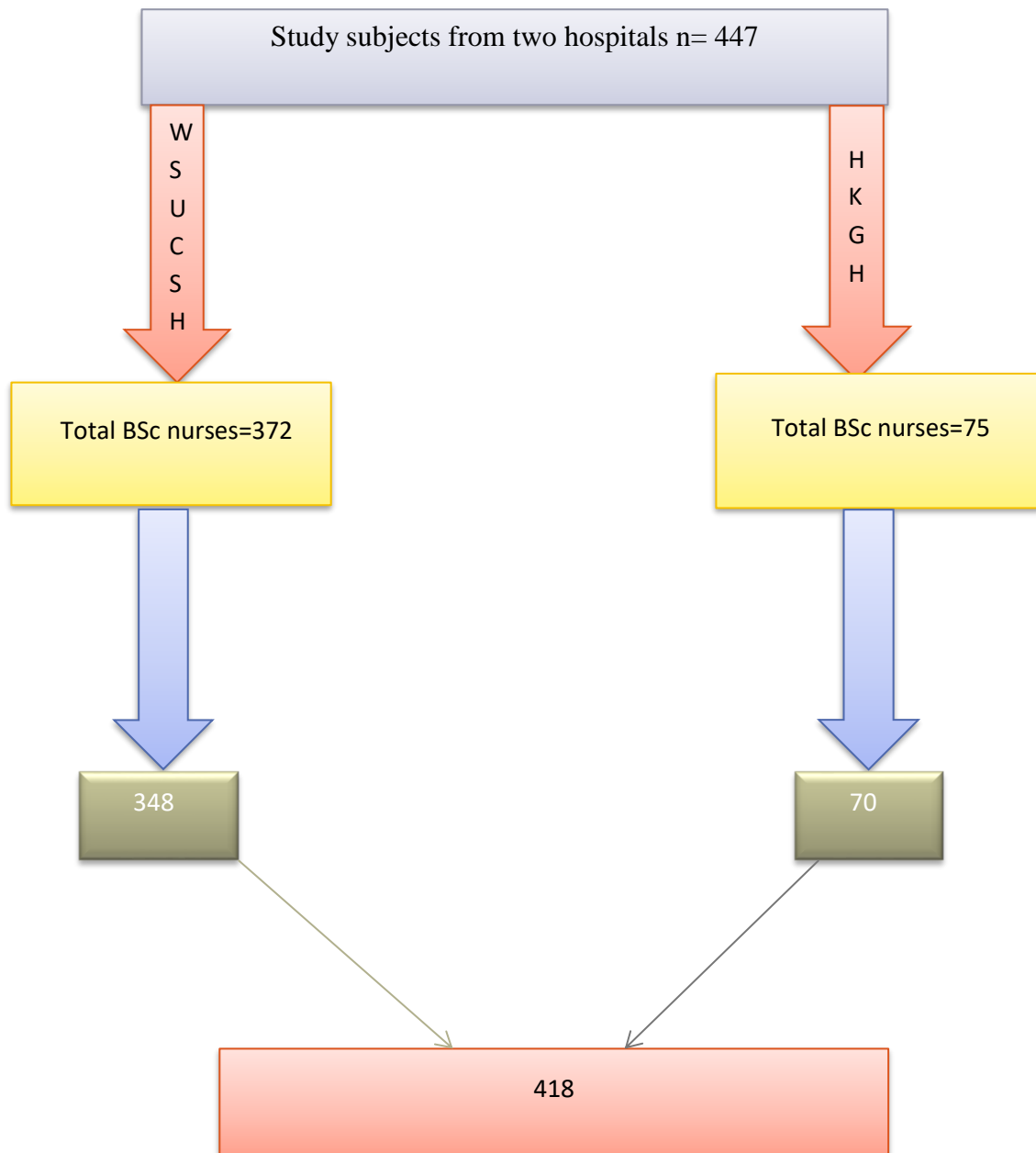


Figure 2: Schematic presentation of sampling procedure in selected hospitals two Zones of SNNP from May 17 to Jun 18,, 2023.

4.7. Study Variables

4.7.1 Dependent variables

- ❖ Utilization of EBP.

4.7.2 Independent variable

- ❖ **Demographic variables:** Age, sex, religion, ethnicity, marital status and income.
- ❖ **Individual variables:** Educational level, work experience, working unit, working hour per week, use of guideline, level of confidence, skill, position of health facility and sufficient time.
- ❖ **Psychographic Variables:** Knowledge, attitude, cultural belief

4.8. Operational Definitions

Knowledge status: Nurses who answered equal to or above the half from the knowledge related questions are categorized as having good knowledge about EBP, otherwise poor knowledge.

Utilization of EBP status: Nurses who score equal to and above the mean EBP utilization score were used as a cut-off point and categorized as having ‘good EBP utilization’, otherwise ‘poor EBP utilization’.

Attitude status: Nurses who score equal to and above the mean from attitude related questions are categorized as having ‘favorable attitude’, otherwise ‘unfavorable attitude’.

4.9. Data collection instrument and Procedures

The study was continuously collect primary and secondary data through data collection tools which modified after review of literature. The quantitative study tools were divided into fifth sections. The first section collects demographic information, the second include level of utilization of EBP, and the third questionnaires focuses on knowledge of nurses to ward evidence based practice, the fourth questionnaires focuses on attitude of nurses to ward EBP utilization and the fifth questionnaires focuses on individual related variables for implementing EBP.

Part II and part IV questionnaire's was constructed on a 5-point Likert scale, that ranges from strongly disagree (1) – strongly agree (5) and Never (1) – Always (5) for the purpose of analysis respectively. There was eight statements in Level of Utilization of EBP with each item had a 5-point Likert scale (5 = always , 4 = often, 3 = usually , 2 = sometimes and 1 = never) with a minimum score of 8 and a maximum score of 40. Nurses who scored equal and above the mean score were categorized as having good EBP utilization, while those below the cutoff point as having 'poor EBP utilization'. The forth component 7 statements to which Participants respond on a 5-point Likert scale (5=strongly agree, 4= agree, 3=Neutral, 2=disagree, 1= strongly disagree) with a minimum score of 7 and a maximum score of 35. Nurses who score equal to and above the mean from attitude related questions are categorized as having 'favorable attitude', otherwise 'unfavorable attitude'.

Part III and part V questionnaire's was constructed on Dichotomous question from No (0)-Yes (1). The third component 7 statements to which Participants respond on Dichotomous question (1=Yes, 0=No) with minimum Scores of 7 and maximum score of 14. Nurses who answered equal to or above the half from the knowledge related questions are categorized as having good knowledge about EBP, otherwise poor knowledge. The fifth component 16 statements to which Participants respond on Dichotomous question (1=Yes, 0=No) with minimum Scores of 16 and maximum score of 32.

Data was collected using a semi structured self-administered questionnaire which has fifth sections; socio-demographic, Level of Utilization of EBP, knowledge of nurses to wards evidence based practice; attitude of nurses to ward evidence based practice utilization and individual related variables for implementing EBP, and then was pre tested on some nurses who

aren't included in the study. Questioners were prepared in English since the study subjects was BSc and above holders. Data facilitators was collected the data.

4.10. Data quality assurance

Attention was given to check all questionnaires for completeness and accuracy. The data was collected through semi-structured self-administer questionnaires. The questioner was prepared in English as study subjects were BSc and above. Prior to data collection pre-test was conducted on 5 % of study subjects on Butajira General Hospital. Before the actual data collection, 3 data collectors was discussed thoroughly for 2 days on how to fill the questionnaires, aim of the study, on confidentiality of the collected data from respective nurses. To avoid low response rates the study was collected through three shift program. The reliability of the tool was checked after the pre-test (21 nurses) was conducted, for each sub-scale (five sections). After pre-test and revision from experts some modifications was incorporated for its validity.

4.11. Data processing and analysis

Data was checked again manually for completeness and internal consistency missing data or incomplete data was excluded to assure quality control. The data was entered to Epi data version 4.6 and analyzed using SPSS version 25. Descriptive statistics including frequency distribution, median and mean was used to describe the variables. Binary logistic regression was used to determine the association between the outcome variable and predictors. Then, variables with a p value less than 0.25 was selected to be a candidate for multivariable logistic regression analysis. In the multivariable logistic regression analysis, variables having a p value of <0.05 was used to declare statistical significance. Adjusted ORs together with its corresponding 95% CIs was taken to measure the level of significance of the association. Finally, the result of this study was summarized and presented in tables, figures, text and graphs.

4.12. Ethical consideration

All the ethical issues were considered & requested permission letter was obtained from Wolkite University, college of medicine and health science department of nursing before the beginning of process of data collection. After obtained support letters was written by the university and then submitted to all concerned bodies in the study site. Then equitable selection of study subjects was carried out. At the time of data collection, a verbal informed consent was asked from the participant was given the right to do so. Confidentiality and privacy of responses was ensured

(their identification of respondents was not be included ensuring to participants that their identification was not be public and the information was used only the research purposes). Also clearly putting the objective of this study to respondents and has a right to refuse the interview may help to keep the confidentiality of the respondents throughout the research process.

4.13. Dissemination of Results

The result of the study was submitted and open presented to Wolkite University collage of health science department of Nursing through documentation. The copy of the end result was disseminated to different stakeholders at Wolkite town health office, health centers and Wolkite University Specialized Hospital in the form of soft copy and Wolkite university library through hard copy.

5. RESULT

5.1. Socio-Demographic Characteristics

From the total of 418 study sample size, 382 BSc nurses participated in the study with the response rate of 91.4%. Majority of the respondents, 172 (45.0%) were under the age bracket of ≥ 35 . Of the returned questionnaires, 338(88.5%) and 44 (11.5%) were from the Wollayta Sodo University Comprehensive Specialized Hospital and Halaba Kulito General Hospital respectively. Among religion Protestant 137 (35.9%) were largest religion in the study followed by orthodox 121 (31.7%), Muslim 99 (25.9%), and catholic 19 (5.0%). Also this study revealed that females 242 (63.4%) were dominant study participant while males accounts 140(36.6%) and 228 (59.7%) were married. All of the respondents were BSC degree holders.

Table 1: Distribution of respondents by their basic socio demographic characteristics, in two of in South Region from May 17 to Jun 18, 2023 (n=418)

Socio-Demographic characteristics		Frequency	Percent
Age group	25-29	116	30.4
	30-35	94	24.6
	≥ 35	172	45.0
Sex	Male	140	36.6
	Female	242	63.4
Ethnicity	Wollayta	68	17.8
	Kembata	40	10.5
	Hadiya	47	12.3
	Sidama	45	11.8
	Halaba	47	12.3
	Silte	32	8.4
	Others*	103	27
Marital status	Single	115	31.1
	Married	228	59.7
	Widowed	16	4.2
	Divorce	23	6.0
Address	Wollayta	338	88.5

	Halaba	44	11.5
Salary	<4650	2	5
	4650-5294	20	5.2
	5294-7111	115	30.1
	>7111	245	64.1
Religion	Orthodox	121	31.7
	Muslim	99	25.9
	Protestant	137	35.9
	Catholic	19	5.0
	Other**	6	1.6
Education level	BSc	382	100
	MSC	0	0

5.2. Evidence Based Practice Utilization

148 (38.7%) and 151 (39.5%) nurses often formulate clinical questions and relevant evidence, respectively. Also, about 64 (16.8%) of study participants usually integrate evidence and 81 (21.2%) of them always integrate evidence that they got with patient values and their experience, while 32 (8.4%) and 79 (20.7%) of them appraise the evidence and evaluate the outcome of their practice, respectively. About 67 (17.5%) of them never shared the outcome. In this study, the magnitude of nurses who had good evidence-based practice utilization was found to be 56.28%, while 43.72% of them had poor evidence-based practice utilization (table 2).

Table 2: Frequency of evidence-based practice utilization among nurses working in WSUSCH and HKGH, SNNPR Ethiopia, from May 17 to Jun 18, 2023 (n=418).

Activities	Never		Sometimes		Usually		Often		Always	
	N	%	N	%	N	%	N	%	N	%
Formulated a clearly answerable question	26	6.8	68	17.8	103	27	148	38.7	37	9.7
Relevant evidence	21	5.5	94	24.6	86	22.5	151	39.5	30	7.9
Critically appraised	31	8.1	79	20.7	88	23	152	39.8	32	8.4
Integrated the evidence	24	6.3	81	21.2	64	16.8	132	34.6	81	21.2
Evaluated the outcomes	26	6.8	78	20.4	64	16.8	135	35.3	79	20.7
Shared this information	67	17.5	147	38.5	59	15.4	85	22.3	24	6.3
Use EBP	34	8.9	100	26.2	68	17.8	97	25.4	83	21.7
Use written protocol	34	8.9	87	22.8	44	11.5	102	26.7	115	30.1
EBP utilization	Good		No.				Percent			
			215				56.28%			
	Poor		167				43.72%			

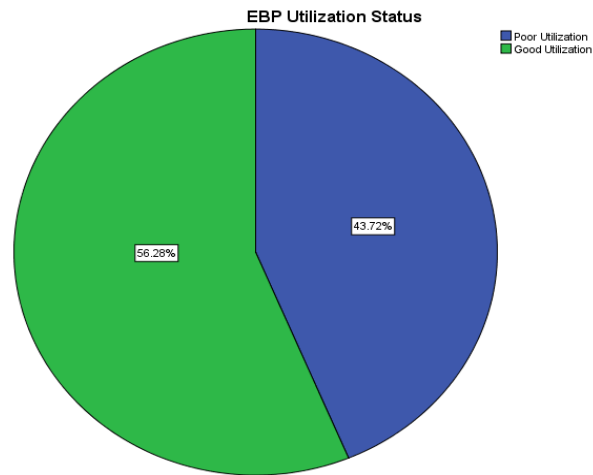


Figure 3: Evidence-based practice utilization among nurses in WSUCSH and HKGH, Ethiopia 2023.

5.3. Knowledge about EBP

From 382 study participants 172(45.0%) had poor knowledge about evidence based practice. 244(63.9%) of respondents knew that EBP is a problem solving approach. Also 236 (61.8%) knew that it enhances delivery of highest quality of nursing care. 174(45.5%) knew that it combines research with knowledge and theory, Most of the respondents 181(47.4%) agreed that it fills the gap between research, theory and practice (table 3).

Table 3: Nurses’ knowledge about evidence based practice at WSUSCH and HKGH in South Region, May 17 to Jun 18, 2023 (n=418).

Variables	categories	frequency	percent
the concept of Evidence-based practice in nursing	No	118	30.9
	Yes	264	69.1
Problem solving approach.	No	138	36.1
	Yes	244	63.9
Highest quality of care.	No	146	38.2
	Yes	236	61.8
Combines knowledge and theory.	No	208	54.5
	Yes	174	45.5
fills the gap b/n research theory and practice	No	201	52.6
	Yes	181	47.4
Need of evidence-based practice in nursing.	No	148	38.7
	Yes	234	61.3
Nurse educators and in the clinical area.	No	184	48.2
	Yes	198	51.8
Level of knowledge	Poor knowledge	172	45
	good knowledge	210	55

5.4. Attitude towards evidence-based practice

199(52.1%) respondents had a favorable attitude towards EBP. Based on the findings, 50.5% of respondents neutral that research and literature findings are useful in day-to-day practice, 29.1% of respondents agreed that using more traditional methods not preferred instead of new approaches, and 34.3% disagreed that EBP has not limited utility into their practice (table 4).

Table 4: Frequency of Attitude towards evidence-based practice utilization among nurses working in WSUSCH and HKGH, SNNPR Ethiopia, from May 17 to Jun 18, 2023 (n=418).

Activities	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
People questioning my clinical practices	20	5.2	90	23.6	105	27.5	109	28.5	58	15.2
Using more traditional methods	7	1.8	97	25.4	145	38	111	29.1	22	5.8
Research articles are relevant to my daily	12	3.1	86	22.5	193	50.5	77	20.2	14	3.7
improving patient care quality	9	2.4	96	25.1	135	35.3	105	27.5	37	9.7
EBP has not limited	10	2.6	131	34.3	148	38.7	76	19.9	17	4.5
My workload is not too high	7	1.8	119	31.2	133	34.8	88	23.0	35	9.2
Attitude	Favorable		No.				Percent			
			199				52%			
	Unfavorable		183				48%			

5.5. Individual related factors

Of the total 382 nurse respondents, 152(39.8%) of them didn't take EBP training either as part of their curriculum or separately, 167(43.7%) of them had no research experience and 215 (56.3%) of them had difficulty in interpreting research findings. As well, about 73(19.1%) of them reported that they lack the willingness to utilize EBP, and 157 (41.1%) of them had no basic computer skills in how to search for evidence (table 5).

Table 5: Individual related factors about evidence based practice at WSUSCH and HKGH in South Region, May 17 to Jun 18, 2023 (n=418).

Variables	Categories	frequency	percent
Basic computer skill	No	157	41.1
	Yes	225	58.9
Research experience	No	167	43.7
	Yes	215	56.3
willing to utilize EBP	No	73	19.1
	Yes	309	80.9
Understanding statistical terms	No	159	41.6
	Yes	223	58.4
Ability of interpreting research	No	211	55.2
	Yes	171	44.8
Taking EBP course	No	152	39.8
	Yes	230	60.2
Sufficient time to find research	No	277	72.5
	Yes	105	27.5
Sufficient time organizational	No	212	55.5
	Yes	170	44.5
Easy to find Research reports	No	215	56.3
	Yes	167	43.7
Know how to find organizational information	No	97	25.4
	Yes	285	74.6
Confident about beginning	No	76	19.9
	Yes	306	80.1

Level of position:	Staff nurse	371	97.1
	team coordinator	11	2.9
Year of experience	<5 years	155	40.6
	5-10 years	187	49.0
	>10 years	40	10.5
Working hour per week	>39 hours	382	100
working unit	Medical	66	17.3
	Surgical ward	56	14.7
	ICU	45	11.8
	EOPD	50	13.1
	OPD	42	11
	Others*	123	32.2
Source of evidence	Training	34	8.9
	Hospital protocol	198	51.8
	National guideline	79	20.7
	Internet	19	5
	Personal experience	30	7.9
	Other**	22	5.8
*includes; Gyn ward, orthopedic, ophthalmic, psychiatry			
**includes; collage , class room , text book, nursing journals			

5.6. Associated factors with EBP Utilization

A multivariable and bivariable logistic regression analysis was performed to identify factors associated with EBP utilization among nurses. In bivariable we have found age, marital status knowledge status, Willing to utilize EBP, Taking EBP training, Find research reports, Easy to find research, Organizational information, Have you confident, Working unit. Accordingly, three variables were found to be statistically associated with EBP utilization after adjusting for confounders. These were taking EBP courses or training, confidence and good knowledge about EBP.

Table 6: Binary and multivariable logistic regression analyses of factors associated with utilization of evidence-based practice (EBP) among nurses working HKGH and WSUCSH, Ethiopia, 2023 (n=418).

Variable	Categories	Good EBPU No (%)	Poor EBPU No(%)	Cor (95%CI)	Aor (95%)	p-value
Age	25-29	62(53.4)	54(46.6)	.751 (0.466-1.208)	0.838 (0.484-1.452)	
	30-34	49(52.1)	45(47.9)	0.712 (0.429-1.182)	0.566 (0.314-1.019)	
	>=35	104(60.5)	68(39.5)	1	1	
Marital status	Single	57(49.6)	58(50.4)	1.278 (0.518-3.148)	1.486 (0.507-4.354)	
	Married	141(61.8)	87(38.2)	2.107 (0.886-5.012)	2.180 (0.791-6.005)	
	Widowed	7(43.8)	9(56.2)	1.011 (0.279-3.661)	1.444 (0.323-6.446)	
	Divorce	10(43.5)	13(56.5)	1	1	
Knowledge status	Poor Knowledge	54(31.4)	118(68.6)	1	1	
	Good Knowledge	161(76.7)	49(23.3)	7.18 (4.561-11.303)*	6.88 (4.324-10.942)**	0.0001
Wiling to utilize EBP	No	30(41.1)	43(58.9)	0.468 (0.278-0.786)*	1.117 (0.601-2.076)	
	Yes	185(59.9)	124(40.1)	1	1	
Taking EBP training	No	68(44.7)	84(55.3)	1	1	
	Yes	147(63.9)	83(36.1)	2.188 (1.441-3.326)*	1.78 (1.11-2.855)**	0.017
Find research reports	No	164(59.2)	113(40.8)	1.537 (0.978-2.414)*	1.162 (0.671-2.012)	
	Yes	51(48.6)	54(51.4)	1	1	

Easy to find research	No	113(52.6)	102(47.4)	1	1	
	Yes	102(61.1)	65(38.9)	1.416 (0.94-2.135)	1.274 (0.778-2.086)	
Organizational information	No	45(46.4)	52(53.6)	1	1	
	Yes	170(59.6)	115(40.4)	1.708 (1.074-2.717)*	1.438(0.816-2.509)	
Have you confident	No	30(39.5)	46(60.5)	1	1	
	Yes	185(60.5)	121(39.5)	2.34 (1.402-3.919)*	2.19 (1.22-3.929)**	0.009
Working unit	Medical ward	37(59.1)	29(43.9)	1.340 (0.734-2.444)	1.109 (0.546-2.252)	
	Surgical ward	28(50.0)	28(50.0)	1.050 (0.558-1.975)	0.999(0.469-2.129)	
	ICU	30(66.7)	15(33.3)	2.10 (1.029-4.287)	1.088 (0.468-2.532)	
	Emergency unit	33(66.0)	17(34.0)	2.038 (1.029-4.038)*	1.793 (0.806-3.988)	
	OPD	27(64.3)	15(35.7)	1.890 (0.917-3.896)	1.419 (0.611-3.294)	
	Other	60(48.8)	63(51.2)	1	1	

Where: 1 = Reference

*includes P-value less than 0.05 in Binary logistic regression.

**includes P value less than 0.05 in multivariable logistic regression.

6. DISCUSSION

The aim of this study was to assess evidence based practice utilization and its associated factor among nurses in HKGH and WSUCSH. Taking EBP courses or training, confidence and good knowledge about EBP were among those associated with EBP utilization of nurses. The present study showed that, 56% (95% CI: 0.511, 0.613) of nurses had good evidence-based practice utilization. This finding is comparable to the study done in west shoa zone[17] , Amhara Region Referral Hospitals[7] and Tikur Anbessa Specialized Hospital[18] in which 52.4%, 55% and 57.6% of nurses utilized research-driven evidence during care provision respectively.

But the current finding is lower compared with the studies done in southwest Ethiopia [37], where 81.1% of nurses used EBP during their patient care. This inconsistency may be due to knowledge about the utilization of EBP. From those studies, it was reported that most of the participants had better knowledge about EBP; 81.2% of their respondents were familiar with the concept of EBP compared with the current study finding on knowledge about EBP (55%).

The current study finding is high when compared with a study done in Offa Specialist Hospital, Nigeria among nurses, which found to be 30.9%. This difference might be due to differences in sample size (small number of nurses involved in the previous study), having only one health facility, and level of knowledge [38].

This study revealed that having good knowledge about EBP was 7 times (AOR = 6.88, 95% CI: 4.324–10.942) more likely to have good EBP utilization compared to having poor knowledge about EBP. The possible explanation for this could be knowledge about EBP may increase their appraisal skills and give more confidence in utilizing EBP. This finding is analogous to the study done in west shoa zone[17] , Amhara Region Referral Hospitals[7],but incomparable to the study done in Tikur Anbessa Specialized Hospital[18]. The possible reason for the above finding could be that knowledge about EBP may increase their appraisal skills and give more confidence in utilizing EBP.

This study also found out that training about EBP was significantly associated with the utilization of EBP. It was observed that nurses who attend EBP training either as part of their curriculum or separately are 2 times (AOR = 1.78, 95% CI: 1.11–2.855) more likely to have good EBP utilization compared to those who do not attend it. The reason could be that training

may help nurses to be clear more about the steps of EBP. Again, a study found that those respondents who had attended EBP training got themselves more comfortable in integrating EBP into their practice. This finding is Similar to studies conducted in Ethiopia [39].

This study also found out that level of confidence was significantly associated with the utilization of EBP. It was observed that nurses who have confidence are 2 times (AOR = 2.19, 95% CI: 1.22–3.929) more likely to have good EBP utilization compared to those who have no confidence. The current finding is higher compared with the studies done in southwest Ethiopia [4] only 5% of nurses have confidence in their decision-making in day-to-day clinical practice. This may be due to taking EBP training and good knowledge about EBP.

7. LIMITATIONS OF THE STUDY

7.1. Limitation of the study

Instrument used for this study was self-administered questionnaire which could be subject to personal bias

The literature used were most from developed country so, comparing the result may have some negative effect as large difference in socio-demographic may exist.

The presence of non-response rate.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Conclusion

Even though more than half 56% (95% CI: 0.511, 0.613) of nurses had good utilization of evidence-based practice. Being good knowledge of EBP, taking EBP training and having confidence at the work area were the predominant predictor variables that enhance implement to EBP.

8.2 Recommendations

Hospitals management in the hospitals could develop strategy for building EBP competencies through proper training.

Nurses need to give attention to level of confidence along with their EBP.

The healthcare system needs to design strategies to improve evidence-based nursing practice in the area.

Further qualitative research will be needed about EBP utilization and associated factors.

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ANNEXES

Annex I: Informed Consent Form

Dear respondent:

Good morning/afternoon!

My name is and I am working as data collector in a study conducted by a BSc graduate student in the field of Nursing from Wolkite University College of medicine and health science department of Nursing. This questionnaire is designed to assess evidence based practice utilization and associated factors among nurses working in WSUCSH and HKGH. We would like to ask you some questions that are related to the above topic. Your contribution has a great input for the study and we would greatly appreciate your participation. There is no possible risk associated with participating in this study. Your name will not be written in the questionnaire and please be assured that all the information you give will be kept strictly confidential. Your participation is completely voluntary.

Do I have your permission to continue?

A. Yes

B. No

Interviewer: Name _____ signature: _____ date: _____

Name of hospital-----

Questionnaire code-----

Annex II: Questionnaire

Part I. Socio-Demographic Questions

Please provide answers to the following questions:

1. Age in year -----		
2. Sex:	1. Male	2. Female
3. Address: _____		
4. Marital status:	1. Single	2. Married
	3. Widowed	4. Divorce
5. Ethnicity:	1. wollayta	2. kembata
	3. Hadiya	4. Sidama
	5. Halaba	6. Silte 7. Other (specify) _____
6. Religion:	1. Orthodox	2. Muslim
	3. Protestant	4. Catholic 5. Others (specify) _____
7. Salary -----		
8. Educational level:	1. BSc	2. MSc and above

Part II. Questions about Level of Utilization of EBP

1. How often have you formulated a clearly answerable question as the beginning of the process toward filling this gap?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

2. How often have you tracked down the relevant evidence once you have formulated the question?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

3. How often have you critically appraised, against set criteria, any literature you have discovered?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

4. How often have you integrated the evidence you have found with your expertise?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

5. How often have you evaluated the outcomes of your practice?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

6. How often have you shared this information with colleagues?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

7. How often Have you use EBP (library books, journals, research documents) in your practice?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

8. How often Have you use written protocol or guideline for Implementing Evidence-based nursing practice?

- | | | |
|--------------|------------|-----------|
| 1. Never | 3. Usually | 5. Always |
| 2. Sometimes | 4. Often | |

Part III. Questions Regarding to knowledge of nurses to ward evidence based practice

Please respond to the next item by indicating Yes or No to knowledge you Have regarding EBP.	Yes	No
1. Are you aware of the concept of Evidence-based practice in nursing		
2. Evidence-based practice is a problem solving approach.		
3. It enhances delivering of highest quality of care.		
4. It combines research with knowledge and theory.		
5. It fills the gap between research theory and practice when utilized.		
6. There is a need of evidence-based practice in nursing.		
7. Evidence-based practice should be for nurse educators and also for those in the clinical area.		

Part IV. Questions Regarding to Attitude of nurses to ward evidence based practice utilization

1. I like people questioning my clinical practices, which are based on established methods

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

2. I'm not preferred using more traditional methods instead of new approaches

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

3. I believe most research articles are relevant to my daily practice

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

4. I believe EBP is important for improving patient care quality

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

5. I believe evidence-based practice (EBP) has not limited utility.

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

6. I believe my workload is not too high to keep up to date with all new evidence

- | | | |
|----------------------|-------------|-------------------|
| 1. Strongly disagree | 2. Disagree | |
| 3. Neutral | 4. Agree | 5. Strongly Agree |

Part V. Questions Regarding to Individual related variable for implementing evidence based practice.

1. Having basic computer skill?

0.No 1.Yes

2. Having research experience?

0.No 1.Yes

3. Being willing to utilize EBP?

0.No 1.Yes

4. Ability of understanding statistical terms?

0.No 1.Yes

5. Ability of interpreting research finding?

0.No 1.Yes

6. Taking EBP course or training?

0.No 1.Yes

7. Have you sufficient time to find research reports?

0.No 1.Yes

8. Have sufficient time to find organizational information (guidelines, protocols etc.)?

0.No 1.Yes

9. Have you easy to find Research reports?

0.No 1.Yes

10. Have you know how to find organizational information (protocols, guidelines etc.)?

0.No 1.Yes

11. Have you confident about beginning to change your practice?

0.No 1.Yes

12. Level of position: 1.Staff nurse 2.case team coordinator Nurse

13. Year of experience: -----

14. Working hour per week -----hours

15. working unit

- | | |
|--------------------------|-------------------|
| 1. Medical ward | 2. Surgical ward |
| 3. Intensive care unit | 4. Emergency unit |
| 5. Outpatient department | 6. Others----- |

16. Source of evidence

- | | |
|------------------------|----------------------------------|
| 1. class room | 2. Training |
| 3. Hospital protocol | 4. colleague |
| 5. National guide line | 6. Internet |
| 7. Personal experience | 8. Text book 9. Nursing journals |