ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF NURSES' PERCEPTIONS AND BARRIERS ON EVIDENCE BASED PRACTICE IMPLEMENTATION IN CLINICAL PRACTICE IN TIKURE ANBESSA SPECIALIZED HOSPITAL.

BY:

ALMAZ SEID (BSc, in Nursing, MA, in Counseling Psychology)

A Thesis Submitted to the school of Graduate Studies of Addis Ababa University in Partial fulfillment of the Requirements for the Degree of Masters of Science In Adult Health Nursing, Department of Nursing and Midwifery.

June, 2014

Addis Ababa, Ethiopi

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Addis Ababa, Ethiopia

APPROVAL BY THE BOARD OF EXAMINATION

This Thesis by Almaz Seid Amedie is accepted in its Present Form by The Board of Examiners as Satisfying Thesis Requirement For The Degree of Master of Science in Nursing.

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2014G.C.

Addis Ababa, Ethiopia

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LIST OF ACRONYMS AND ABBREVIATIONS

AAU: Addis Ababa University

AA: Addis Ababa

AOR: Adjusted Odds Ratio

CSA: Central Statistics Agency

EBP: Evidence Based Practice

IRB: Institution Review Board

OR: Odds Ratio

SPSS: Statistical Package for the Social Science

TASH: Tikur Anbessa Specialized Hospital

Yrs: Years

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ABSTRACT

Background: health care is one of the most dynamic human disciplines, and large amounts of money are spent annually on high-quality and sophisticated research. Nursing staff are the largest health professional group in all sectors of healthcare. The majority of Nurses work in direct care of patients. Today, EBP is essential to the practice of nursing for purposes of promoting optimal patient outcomes through incorporating research findings, the clinicians' experience, and patient preferences. Historically, nurses have relied on expert' opinions in clinical decision-making. However, these traditional ways of practicing may not only be outdated but unsafe. Also, experienced-based knowledge may be associated with biased thinking that lead to errors.

Objective: Assessment of nurses' perceptions, level of use and barriers on EBP implementation in clinical practice in TASH.

Method: A cross-sectional Study design was used. Two hundred ten nurses were assessed through self-administer questionnaires for quantitative and fifteen nurses were also involved in in-depth interview for qualitative. The quantitative data was coded and interred to epi info version 7 and exported to analysis in Statistical Package for the Social Science (SPSS) version 21 window7. Data analysis include descriptive statistics was be used to describe participants' demographic characteristics. To determine statistically significant logistic regression was used. The qualitative was analyzed through open code.

Results: good perception and positive attitude have 90% and 73.8% respectively. Of the total 210 121(57.6%) of nurses were integrate EBP in their clinical practice. Only 19 (15.7%) use EBP in their clinical practice always. have Knowledge, free time, supportive nursing managers are significant association with implementation of EBP. But, year of experience and perception have no association with implementation of EBP.

Conclusion and Recommendation: Both individual (knowledge and skill) and organizational (lack of training, workload, insufficient time and supportive managers) factors are the predominant factors that hinders implementation of EBP. So hospital managements and nursing leaders can easily overcome some of these barriers through arranging EBP training and providing time off from work for nurses to learn and implement new techniques.

1. INTRODUCTION

1.1 Background

Medical and health care is one of the most dynamic human disciplines, and large amounts of money are spent annually on high-quality and sophisticated research, resulting in an exponential growth in healthcare literature. Regularly, new and more effective medicines, medical devices, and procedures are invented. One major objective behind all these efforts is to help doctors, nurses, and medical technicians provide the best possible care and treatment to patients. In addition to using traditional and well established procedures and practices, health care practitioners are adopting innovative interventions that are based on best practices as well as solid research-based evidence (1).

Nursing is a science and therefore it is essential to derive its knowledge from the findings of research. Scientific research is the standard by which sciences derive knowledge. Research findings define, explain, and identify phenomena fundamental to nursing care. Nursing practice serves as the source for research questions, while research serves as the foundation for current practice. Practice and research therefore exist in a circular continuum with one another (2).

Nursing staff are the largest health professional group in all sectors of healthcare (3). The majority of nurses work in direct care of patients; assessing patients' needs and making decisions on nursing interventions. Nurses' practice of EBP can be assumed to have a major impact on patients' outcomes and patient safety. Hence, there is a potential to improve quality of care and patient safety by enhancing Nurses' practice of EBP. Interventions aiming to enhance Nurses' practice of EBP need to target the factors that are important for EBP (4).

Today, EBP, which is the use of theory-derived research-based findings along with reliable forms of evidence in clinical decision-making., is essential to the practice of nursing for purposes of promoting optimal patient outcomes through incorporating research findings, the clinicians'

experience, and patient preferences (5). Historically, nurses have relied on expert' opinions of seasoned nurses in clinical decision-making (6).However, these traditional ways of practicing may not only be outdated but unsafe (5). Also, experienced-based knowledge may be associated with biased thinking that lead to errors (2,7-8).

EBP is not clinical problem solving. While evidence-based practice is a mechanism for solving clinical problems and making decisions about interventions, it is distinct from traditional problem-solving approaches in health care. Conventional decision making about clinical practices relied on expert opinion sometimes achieved by consensus, but rarely through experimentation combined with "standard practice." EBP is a systematic process of reviewing the best available research evidence and then incorporating clinical experience and patient preferences into the mix (9).

The EBP process basically includes five elements: (1)formulating an appropriate question, (2)performing an efficient literature search, (3)critically appraising the best available evidence, (4)applying the best evidence to clinical practice, and (5) 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. The definition of evidence-based practice, in fact, holds evidence as only one element of the triad of decision making. Clinical judgment and patient values must be considered when applying the evidence to a single situation (10).

Patient care, on the other hand, requires a holistic approach to the care of individuals with physical, psychosocial, and/or spiritual needs. This care is founded on the provider–patient relationship and an appreciation of the patient's unique needs (9).

Finally, studies continue to prove that nursing practice is still not based on best available evidence. This call for a need to specifically research further hence in trying to address the problems raised, the researcher was used a qualitative and quantitative approach with the hope of providing better understanding of the research problems.

1.2 Statement of problem

Healthcare organizations face considerable challenges in ensuring patient care is based on the best available evidence. Studies consistently demonstrate a failure to implement interventions that have been shown to be both effective and cost-effective (11). Although this gap between evidence and practice is common to all healthcare settings, failure to bridge this gap in developing countries can have serious consequences and hinder progress towards better health (12). Valuable resources continue to be used for practices that are out of date, have no demonstrable benefit or are even harmful, while interventions that have been shown to be both inexpensive and effective have not been widely implemented Many published articles and advances on EBP; nursing practice is still not based on evidence. The provision of care in the Hospital is widely demanding and requires high level critical thinking and decision making skills inherent in the nursing profession there by demanding the use of EBP for nursing (13).

Although Evidence-Based Clinical Practice (EBCP) is known to improve the quality of health care, making it cost-efficient while improving clinical results, barriers for transferring research into clinical practice challenge this process, which, in their final state, would culminate in what Davis called ‘the adoption process (14). some barriers and facilitators, as well as interventions, to improve the implementation of new knowledge, identifying that they depend, basically, on factors associated to the professionals, the organization they work for and their management policies (15).

Currently more and more developments are being advocated and more international organizations are fostering the need of incorporating EBP. EBP is the theme in most nursing conferences both nationally and internationally and more continuing professional development programs targeting EBP are being developed (16).

Across Africa (for example South Africa, Botswana, Kenya, Malawi, Nigeria), EBP is being advocated for nurses. EBP is also being emphasized in Africa but, Africa lags behind in research as fewer nurses are available who are sufficiently prepared at higher level to enable them to conduct research because of few higher institutions and exodus of nurses to developed countries for greener pastures. Lack of funding is also another obstacle for the nurses to conduct research regardless of having research knowledge (17).

Especially the newly graduated and less experienced nurses may perceive EBP to be useful, as they have recently learned in nursing curriculum's (2). However, 'expert' nurses may have difficulty translating evidence to practice because of their traditional way of thinking about practice and their use of methods that were successful in the past .Moreover, nurses may not have the skill or expertise how to obtain the research evidence from the literature or how to apply the evidence. Ultimately, nurses' beliefs regarding attitudes toward EBP was influence their use of EBP. Despite the benefits, barriers do exist which impede adopting EBP and its use(18) .

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 (19).

The five greatest barriers to evidence-based practice were 1) insufficient time to find research reports, 2) insufficient time to find organizational information (such as guidelines and protocols), 3) lack of confidence in assessing the quality of research, 4) difficulty in understanding English-language publications and insufficient time at work to implement changes in practice (20-21). Several studies have attempted to analyze this phenomenon from different perspectives, such as the influence of knowledge management (22-23), attitudes, values or training in the process of knowledge transferrable into clinical practice (24-25).

Barriers perceived by professionals concerning the use of research into clinical practice have been studied (26-27), as well as the lack of support of health organizations towards EBCP (28).Most of the studies were conducted on developed country which the factors may rise in developing country like Ethiopia (28-35).

Similarly, Research suggests that the implementation of EBP by staff nurses is problematic and influenced by attitude, barriers and knowledge. Some studies have already proposed the complexity of the variables involved in the transferrable of knowledge into clinical practice. It is worrying to observe how, along the route that lies between the production of knowledge and the clinical decision of professionals, there is a progressive decrease in knowledge, in favor of beliefs, opinions, etc (11,35-36).

1.3Rationale and Significant 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 (37). Public authorities and professional organizations, international and national organizations (12,37-39).have promoted making evidence-based practice the standard for health services. Even though 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 transfer into clinical practice, and barriers perceived by professionals concerning the use of research into clinical practice have been studied, as well as the lack of support of health organizations towards EBCP, the detail factors are not analyzed, especially in developing country like Ethiopia.

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.

Tikur Anbessa specialized hospital was affiliated with the Addis Ababa University's providing tertiary care in a country, Training center for undergraduate and postgraduate medical students. Similarly a reputation for excellence in research, staffed with the most senior specialists, managing patients with complex illness and exposed to highly specialized care also serving as a practical educational site for students and health care providers in addition to the daily patient care. This hospital was one of the hospitals expected to implement EBP. So, this cross-sectional design was assess the perception of nurses and barriers on implementation of EBP.

Health care consumers, society, government, and third-party payers expect care based on the latest evidence (40).Evidence based practice assists bedside nurses in decision making and accountability for their own practice and (41). Care of the individual, policies and procedures, patient care management tools through improving Health care decisions and interventions (42).

Generally this study is significant for nurses and healthcare professionals to provide the highest quality of care in meeting the needs of patients and families as a whole Specifically it improved patient outcomes, decrease health care costs, which is a priority of governmental and funding agencies.

2. **LITERATURE REVIEW**

Perception of Nurses towards Evidence Based Practice

Like many other disciplines, the health care sector is experiencing major changes due to extensive research and development activities. study united states of America reported that as nurses play a crucial role in the delivery of health care, they need to embrace new and innovative techniques to provide effective and best possible treatment to their patients. (43) It is well known that a shortage of nurses creates a loop of job dissatisfaction due to work overload, which results in a worse quality of care provided and it is an important barrier for implementing EBP (44-45).

Study from USA (Washington) found education and position of nurses affect perceptions of nurses towards research. Nurses with master's degrees had a more positive attitude towards research. Applying Rogers' theory to these findings implies that early adopters such as nurses with advanced degrees and management positions may be the early adopters of change in an organization's use of research findings in practice (45).

More over a study in Australia found a significant change in the nurses' perceptions of organizational support in learning EBP and their self-perceived skills in locating and appraising research However, there was no significant change in the respondents view on the availably of time to conduct research .The nurses expressed a positive opinion toward their ability to implement EBP, its availability, support for its use, value for patient care, clinical usefulness, and adequate time to perform it . But, respondents did not feel they had adequate skills in finding literature or evaluating it. Respondents also believed they did not have knowledge of research jargon including statistics (46).

Similarly study from Singapore found Nurses with higher professional qualifications were more likely to have better self-perceived ability to undertake EBP activities. There was a significant difference among different self-perceived ability and participation in EBP training. Those nurses who had previously attended an EBP class were likely to feel more competent in implementing EBP. Nurses with higher education tended to have fewer barriers than nurses with lower education and also nurses who attended EBP training and those with higher nursing qualifications tended to have less barriers to adopting EBP (6, 50)

Study on Iranian nurses shows patient load, heavy workloads and insufficient staffing inhibited the implementation of EBP. Additionally, nurses in this study believed they did not have the power to implement EBP. Nurses reported physician orders not nursing research-directed clinical practice. The author also found the lack of managerial support to be a significant barrier to the implementation of EBP (47).

Barriers of Implementing Evidence-Based Practice

Individual factors such as educational level, years of experience and beliefs and confidence in practicing EBP, as well as organizational factors such as supportive leadership, organizational climate and access to resources, have been demonstrated to be associated with practice of EBP. A range of individual and organizational factors associated with nurses' practice of EBP have been explored. Nurses with a higher educational level, such as a Master's degree or qualifications at an advanced level, have reported a higher extent or more frequent practice of EBP compared with nurses with lower qualifications (48-50).

More than 53% of the nurses either ‘‘agreed’’ or ‘‘strongly agreed’’ with the statement that the major barrier to their adoption of EBP was the lack of time at their workplaces to search and read research articles. The next 3 barriers, identified by more than 47% of the nurses, were their inability to understand statistical terms, inadequate understanding of technical jargon used in

research articles, and difficulty in judging the quality of research articles and reports. The statistical test revealed that the effect of 2 variables, ‘‘highest nursing qualification’’ and ‘‘attending EBP training’’, were significant at the 0.05 level. Nurses who had a degree or higher qualification and those who had attended EBP training tended to face fewer barriers in adopting EBP. A significant relationship was found between the perceived importance of EBP training and participation in previous EBP training, years of nursing experience, and highest nursing qualification (6).

Study from USA found no significant differences in any of the subscales based on years of nursing experience. However, there was a significant difference in attitude, support, use, and availability of research between masters' prepared nurses versus baccalaureate nurses. Also, the author found a significant difference between baccalaureate and associate degree nurses in all subscales. Nurses in management positions significantly differed with staff nurses in attitude, support, use and availability of research (45).

Current research found more experienced head nurses perceived greater utility in the use of research utilization and nurses with more experience believed they had more time to read and use research at work. However, there was not a statistically significant relationship between the use of EBP and years of experience as a head nurses.(51) .Which is analogous with other study found, junior clinical nurses have reported more barriers compared with senior clinical nurses in regard to accessing organizational information such as clinical guidelines and protocols, access to EBP resources, and having time for practicing EBP (52).

One study agreed that nurses had a positive and welcoming attitude toward EBP. Yet, relying on expert opinions rather than EBP was the most common way nurses learn how to practice nursing. Although there was much literature regarding EBP, most of the surveyed nurses either did not know of current evidence-based practices nor did they have the time or support to implement

those practices (53) .which is similar with Waters et al. found nurses generally had a positive and welcoming attitude toward EBP (54).

Moreover , study conducted in Singapore nurses working in public hospitals shows a positive attitude toward EBP, which similar with other studies.(55-57). Several studies have identified managers, not only as a key factor for the generation and implementation of EBCP, but also for the creation of a good research environment (58-60). in other studies, nurses have declared the need for a mentor to guide them along the search and implementation of evidence (61-63).

Similarly study from Finland found the majority of head nurses had positive attitudes toward EBP. However, the study results indicated head nurses do not have the time to study research articles and that was rare for heads these nurses to discuss article findings with staff. Similarly the authors found about only half of the head nurses stated they discussed findings with other head nurses. A large number of the respondents agreed that staff nurses do not have the time to search or study researching findings. However, a majority of the respondents believed they encouraged their employees to read and use EBP(51). Several studies shows Supportive leadership have been identified as being strongly associated with nurses' EBP practice in several studies (63-64).

Skills were statistically significantly associated with how the barriers to the use of research-based evidence were assessed, also after being adjusted for age. Nurses with better skills reported fewer barriers to evidence-based practice. Research is not used in isolation but is influenced by factors at the individual level, collaboration between multidisciplinary groups, management and organizational structure (65).With regard to the three factors that make up the EBP (Practice, Attitude and Knowledge/Skills), significant differences in the Knowledge/Skills factor were maintained. It is worth noting that the professionals with shorter experience obtained the best scores. There was a better score for nurses with management functions (supervision and coordination), compared to clinical nurses, in the Attitude factor (66).

The study was found done in Singapore More than 64% of the nurses expressed a positive attitude toward EBP. However, they pointed out that due to heavy workload, they cannot keep up to date with new evidence. Regarding self-efficacy of EBP-related abilities, the nurses perceived themselves to possess moderate levels of skills. The nurses also felt that EBP training, time availability, and mentoring by nurses with EBP experience would encourage them to implement EBP. The top three barriers to adopting EBP were lack of time, inability to understand statistical terms, and inadequate understanding of the jargon used in research articles (67-68).

Study in Australia shows the low use of online medical databases due to lack of adequate search skills and searching experience is a barrier to implementing evidence-based medicine (69).From integrative review and single study from south Africa university highlighted lack of time as a major barrier to adopting EBP(70-71).

The levels of use of EBP South Africa in ICU(Intensive Care Unit) by nurses were 35.6%, 32.9% and 31.5%) use EBP frequently, moderately and rarely, respectively. the results indicated that the trained ICU nurses had a welcoming attitude towards EBP(75%) (72).

Major health care organizations are emphasizing the importance of EBP in developing countries. However in Ethiopia published study on nurses' perceptions and barriers on EBP implementation in clinical practice were not found on open access internet.

2.2 Conceptual Frame-Work

Studies and reports in different parts of the world reviewed different factors associated with implementing EBP. For this study the conceptual framework was developed after review literatures. Socio demographic variables: Age, sex, occupation, Educational level and marital status ,years of experience, educational level,Individual factors like attitude, knowledge, skill, work load, , available of research, autonomic, and beliefs and confidence in practicing EBP, level of use EBP and organizational factors such as supportive leadership, organizational climate and access to resources. The determinant factors were addressed and the relation was shown as the figure below.

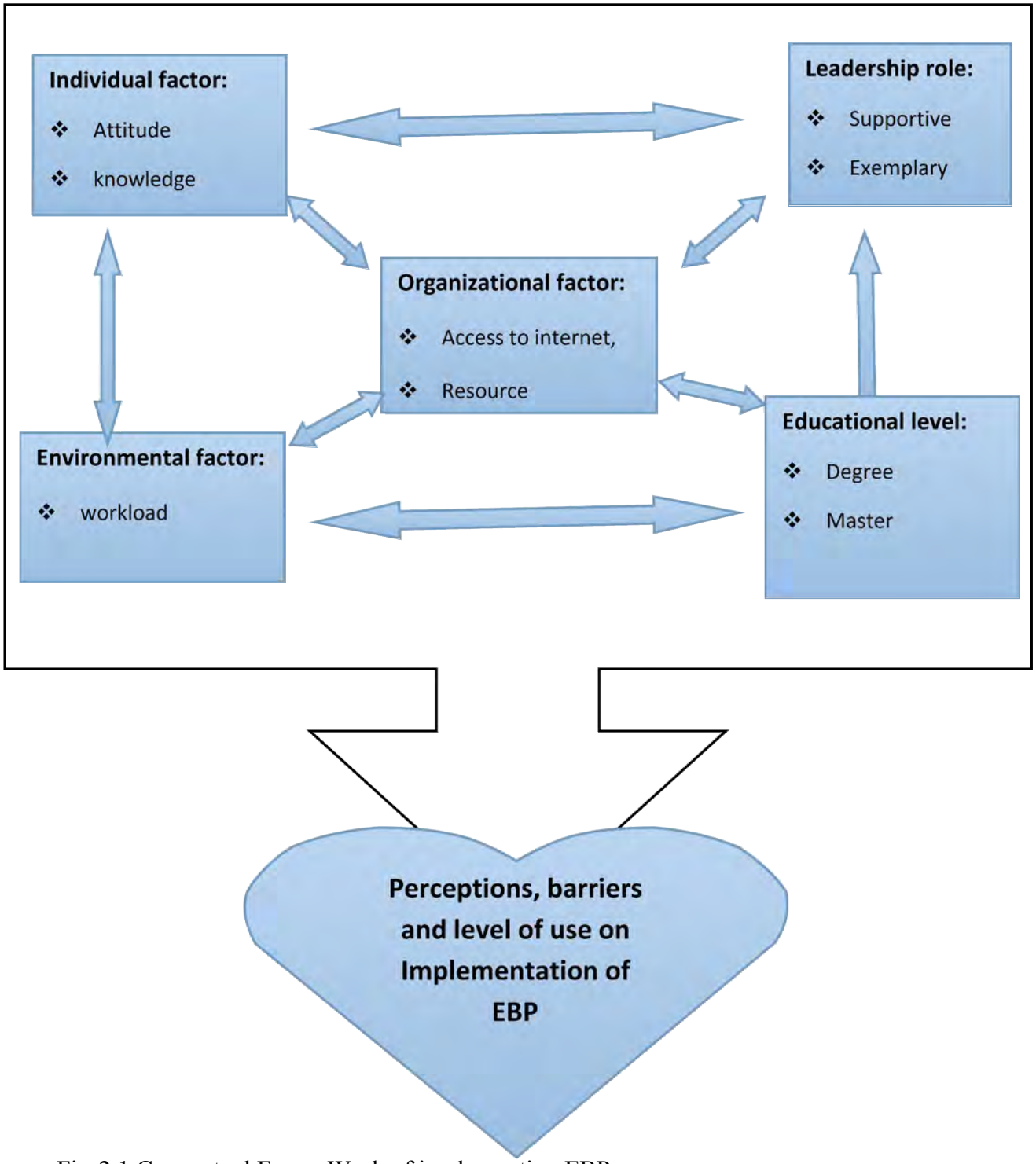

Fig-2.1 Conceptual Frame Work of implementing EBP.

3. OBJECTIVES

3.1 General objective

To assess nurses' perceptions and barriers on evidence based practice implementation in clinical practice in Tikur Anbessa Specialized Hospital

3.2 Specific objectives

To assess nurses' perception about evidence based practice in Tikur Anbessa Specialized Hospital.

To assess barriers to implement evidence based practice in Tikur Anbessa Specialized Hospital.

To determine the level of use evidence based practice in Tikur Anbessa Specialized Hospital

4. METHODOLOGY

4.1. Study Area:

The study was being carried out in Tikur Anbessa Specialized Hospital which is found in Addis Ababa (capital city of Ethiopia) in lideta sub-city. According to Central Statistical Agency of Ethiopia (CSA), as of 2013 the town of Addis Ababa has a total population of 3,130,673, of whom 1,478,890 are men and 1,624,783 women. In the town, most people are engaged in commercial activities, include shops, food and drink establishment, workshops, flour mills and transport sector (though inadequate) predominate. Originally TASH was built to accommodate 500 beds and currently has more than 600 beds. Of note, the hospital was having a compiled Drug and equipment list during its establishment which was published in 1967 GC.

It serves about 250,000 patients per year in its outpatient department and about 24,000 in the inpatient and same number in the emergency departments. It is also the largest teaching hospital of the country; it trains large number of undergraduate medical students as well as several residents and fellows. It is a center to produce instructors for the various medical schools in the country as well. The hospital has more than 1700 medical and non-medical staff. Of these 433(396 BSc,10 MSc and 27 diploma) are nurses who offers inpatient, outpatient and emergency services in about 20 special clinics and units. The ratio of nurse to population in TASH is 1:3000.

4.2. Study Period

The study period were conducted from March 1-May 30, 2014 in Tikur Anbessa Specialized Hospital.

4.3. Study Design:

Cross sectional study design using quantitative and qualitative methods was employed for this study. For quantitative, self-administered questionnaires' was used to assess perceptions and barriers on EBP implementation. For qualitative study, In-depth interview was used to assess nurses' perceptions on EBP implementation in clinical practice in Tikur Anbessa Specialized Hospital.

4.4. Source and Study Population:

The source population was all BSC and MSC nurses and the study population was BSC and MSC nurses of Tikur Anbessa Specialized Hospital..

4.5. Inclusion and Exclusion Criteria

Inclusion Criteria:

All BSc and above nurses were included in the study. Since BSc and above nurses were expected to implement new research findings in clinical setting (EBP) using supportive evidence.

Exclusion criteria:

Nurses who were on post graduate program and diplomas were exclude both in quantitative (self-administered questionnaire) and qualitative (in-depth interview) study since:-

Post-graduate Nurses- were not available during the time of data collection and may not have knowledge about the current practice in the hospital setting.

Diploma Nurses- in nursing curriculum research was not incorporated extensively for diploma nurses and have no research experience so, EBP was not expected from them.

4.6. Sample Size Determination:

15 BSc and above nurses were taken for qualitative whereas 217 BSc and above nurses were taken for the quantitative using correction formula as follows:

$$\frac{(Z_{\alpha/2})^2 p(1-p)}{d^2}$$

$n=(1.96)^2*\alpha/2*0.5(1-0.5)/(0.05)^2$ $n = 384$

N_c= corrected sample size, n= sample size, N= study population,

P= since no previous study was found o.5 prevalence is used,

d= the margin of sampling error tolerated (0.05),

Z_1 = standard score corresponding to 95% CI= 1.96

Since the study population were 406 which is below 10,000 the study use correction formula as follow:

$$Nc = \frac{n}{1+ n/ N} \qquad \frac{384}{1+ 384/ 406} = 197$$

$N_c = 197$,

There Fore 10% of the sample size was added for non-response rate so that a total of 217 study subjects were needed.

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4.7. Sampling Procedures:

A total of 210 BSc and above nurses were taken from 406 BSc and above nurses using random sampling. Using proportional 44 were nurses' case team coordinator from 83 whereas 166 were staff nurses from 323 staff nurses purposively. For in-depth interview 15 BSc and above nurses were selected randomly from 189 BSc and above nurses who were not selected for quantitative. 12 BSc and above staff nurses from 150 BSc and above staff nurses were selected randomly by lottery method. Similarly 3 BSc and above case team coordinators were selected randomly by lottery method from 39 BSc and above case team coordinators who were not involved in quantitative. From the 15 BSc and above nurses, the 3 case team coordinators were selected proportionally for in-depth interview.

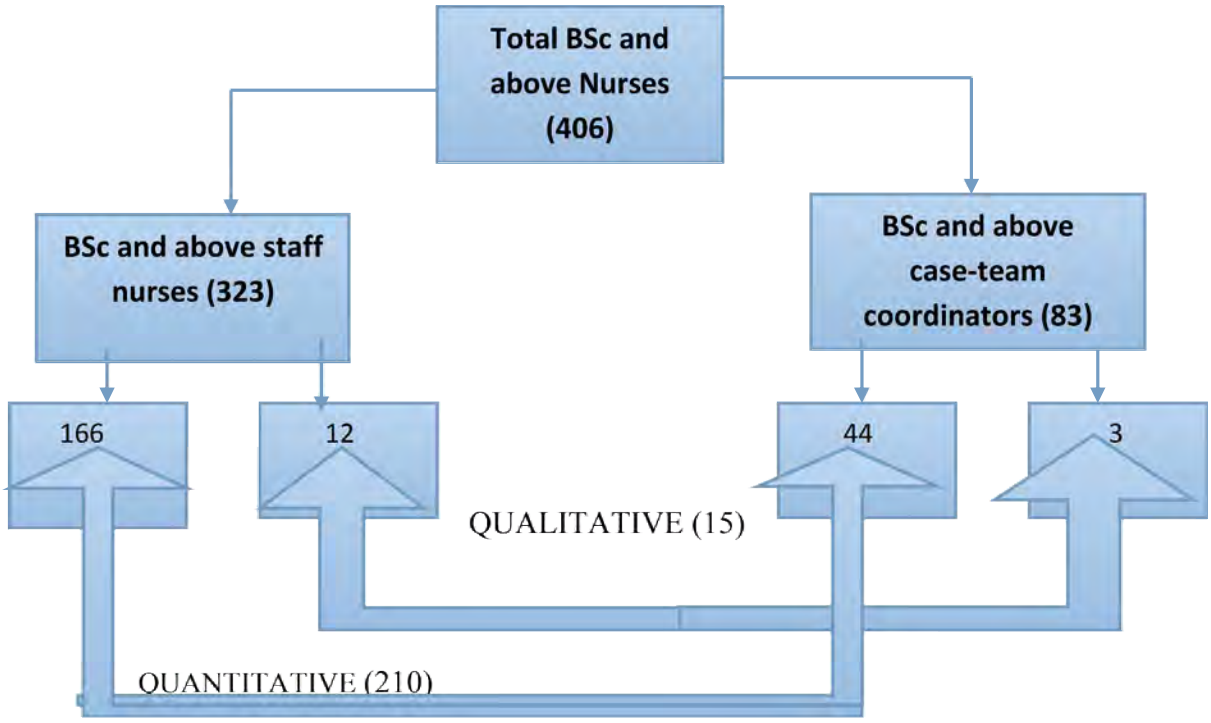

Fig- 4.1Sampling procedure

4.8. Data Collection Procedures

The study was continuously collect primary data through data collection tools which were adopted from Majid et.al (2011) and modified after review of literature. The quantitative study tools were divided into three sections. The first section collects demographic information. The second include nurses' beliefs and attitudes toward implementing EBP. The third questionnaire focuses on barriers of implementing EBP. All sections were constructed on a 5-point Likert scale, that ranges from strongly agree (1) to strongly disagree (5). There were six statements in the beliefs and attitude scale. Scores could range between five and thirty.

The third component 27 statements to which Participants respond on a 5-point Likert scale that ranges from strongly agree (1) to strongly disagree as (5). Scores could range from 27 to 135.For qualitative study 7 questions were prepared with their probes.

4.9 Data quality control Assurance

To assure the quality of the data emphasis were given in designing and translation of data collection instruments. The data was collected through self-administer questionnaires and in-depth interview through audio recording. The questioner was prepared in English as study subjects were BSc and above. For in-depth interview the questionnaires were translated to local language (Amharic) for its simplicity, validity and clarity the questionnaire. Prior to data collection pre-test was conducted on 10 %(22) of study subjects on Zewditu Memorial Hospital Nurses. Before the actual data collection, 3 data collectors (BSc Nurses) and supervisors were trained thoroughly with close supervision 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 of Tikur Anbessa specialized hospital. The reliability of the tool was checked after the pre-test (22 nurses) was conducted, for each sub-scale (three sections). The overall reliability cronbachalph coefficient (r=0.7). After pre-test and revision from experts some modifications were incorporated for its validity.

4.10. Operational Definitions:

EBP: Evidence-based practice was an approach in which critically examined literature and research findings are used to provide nursing care that is safe and modern.

Perception: how nurses' perceive (beliefs and attitudes) the importance of EBP in their clinical setting.5-point Likert scale, that ranges from five or more answers agree or strongly agree have positive perception from nine questionnaires.

Barriers: were obstacles for implementing EBP. These barriers could be related to the nurses' experience, the environment, resources, and lack of administrative support.

Level of use EBP: Nurses used EBP in the clinical setting self- rated by three options (Sometimes, usually, and always)

Implementation: application of new research findings in clinical practice.

Positive attitude and beliefs: three or more answers agree or strongly agree from six questionnaires

Negative attitude and beliefs: three or more answers disagree or strongly disagree from six questionnaires

Knowledgeable: Five and above questionnaires' answers from eight questionnaires' agree or strongly agree unless not knowledgeable.

Have Skill: Four and above questionnaires' answers from seven questionnaires' agree or strongly agree

Have No Skill: three or more answers disagree or strongly disagree from seven questionnaires'

4.11. Variables

4.11.1 Dependent variables

The dependent variables were nurses' perception on EBP, barriers on implementation of EBP, level of use of EBP

4.11.2 Independent variable

Demographic variables: Age, sex, occupation, religion, Ethnicity, Educational level and marital status

Individual variables: knowledge, skill, work load, years of experience, educational level, available of research and attitude and confidence in practicing EBP, as well as

Organizational factors such as supportive leadership, organizational climate and access to resources were independent variables.

4.12. Data Analysis Procedures

Data were interred to epi info version 3.54 and exported to analysis in SPSS version 21 window7. Data analysis included descriptive statistics were used to describe participants' demographic characteristics, and texts, tables, and graphs were used to present the results. To determine statistically significant between dependent and Independent variables logistic regression was used. For the qualitative the data Word processing and open code were used in the analysis. The data was Transcript in to English. Following templates were prepared. The ideas were code in to: 1) perception and attitude 2) barriers and facilitators 3) understanding/knowledge of EBP 4) future interventions.

4.13. Ethical Consideration

Institution Review Board (IRB) of Addis Ababa University, College of Health Science, School of Allied Health Sciences, Department of Nursing and Midwifery was review the protocol to insure full protection of the rights of study subjects. Following the approval by IRB, Official letter of co-operation was written to Tikur Anbessa Specialized Hospital from Department of Nursing and Midwifery of AAU. After getting permission from Tikur Anbessa Specialized Hospital, data collectors were informed about the study, then after Verbal and written Informed consent obtained from study subjects, Confidentiality was assured for all the information provided, no personal identifiers (anonymity) were used on the questionnaires.

4.14. Dissemination of Results

Results were disseminated to the Tikur Anbessa Specialized Hospital and AAU, Department of Nursing and Midwifery through documentation. To researchers and students the results were disseminated through presentations. If possible it will be accessible on internet for all through publication.

5. RESULT

Socio-Demographic Characteristics

of the 217 nurses invited to participate, 210 (96.8) returned completed questionnaires. The response rate was 96.8%. The respondents were 156 (74.3%) female and 54 (25.7%) male164(70%)were staff nurses and 44(30%) were Case team coordinator nurses. Of the 210 study subjects 133(63.3%) were orthodox followers. 119 (54.7 %) and 94(44.8%) of the study subjects were single marital status and Amhara ethnicity respectively. Most of the study subjects were BSc which accounts 202 (96.2%). 15 (3 heads and12 staff nurses) were taken for in-depth interview as the data were saturated.

Table-5.1 Socio-demographic characteristics of nurses and implementation of EBP in TASH from April-May 2014 G.C.

S,N	Variables		Research Design	
			Quantitative	Qualitative
			Frequency(%) (n=210)	Frequency(%) (n=15)
1	Age :	20-24yr	42(20)	2(13.3)
		25-29yr	84(40)	4(26.7)
		30-34yr	**33(15.7)**	1(6.7)
		35-39yr	11(5.2)	2(13.3)
		40-44yr	15(7.1)	2(13.3)
		45-49yr	14(6.7)	2(13.3)
		50-54yr	5(2.4)	2(13.3)
		55-59yr	4(1.9)	----
		60-64yr	1(0.5)	-----
		>64yr	1(0.5)	-----
2	Sex:	Male	54(25.7)	4(26.7)
		Female	156(74.3)	11(73.3)
3	Marital status:	Single	119(56.7)	9(60)
		Married	87(41.4)	6(40)
		Divorced	4(1.9)	----

Table-5.1 Socio-demographic characteristics of Nurses and impl. in TASH .Continued..

4	Ethnicity:	Oromo	63(30)	4(26.6)
		Ahmara	95(45.8)	9(60)
		Tigrie	23(11)	2(13.3)
		Guarage	22(10.4)	-----
		Other	7(3.3)	-----
5	Religion:	Orthodox	133(63.3)	14(93.3)
		Muslim	16(7.6)	----
		Protestant	50(23.8)	1(13.3)
		Catholic	4(1.9)	----
		Other	7(3.3)	-----
6	Year of experience:	1-5yr	134(63.8)	6(40)
		6-10yr	38(18.1)	8(53.3)
		11-15yr	4(1.9)	------
		16-20yr	5(2.4)	1(13.3)
		>20yr	29(13.8)	-----
7	Education level:	Degree (level-5)	202(96.2)	14(93.3)
		Masters and above	8(3.8)	1(13.3)
8	Level of position:	Staff Nurses	166(79)	12(80)
		Head Nurses	44(21)	3(20)

Nursing Perception towards Implementation of Evidence Based Practice

Open-ended questions were used to permit participants to express their opinions, perceptions, attitude and belief towards EBP. For overall decision of perception to EBP, total score of the statements were dichotomized to good perception and not good perception based on the score, the Participants having more than half agree/strongly agree were considered have good perception. Half and below disagree/strongly disagree were considered have not good perception. 189 (90%) have good perception to EBP. Similarly from the in-depth-interview most nurses view EBP is good for the quality of care but due to workload, lack of resources, having not knowledge the integration of EBP was poor **.**the following illustrations support the welcoming attitude:

"*Knowing that you are doing EBP probably improves the care and....intellectually you gain something from an individual point.''*

"*(All: nodding to this statement)....Knowledge on EBP in nurses is available my practice is not all the time evidence-based. There are times when I do not know things and I do not have even time to sit down*.**"**

"*I think EBP is good for pt's* improvement, sometimes *make use of the ward rounds to ask for information from the doctors or other colleagues.***"**

"*I do not use EBP practice because I don't have knowing EBP implementation, there is no materials to practice on, for example, no access to internet, training on EBP ....***"**

The attitude and believe of nurses were also welcoming or positive which accounts 155 (73.8%). Only 55 (26.2%) have negative attitude and belief towards implementation of EBP. This was well supported by the in-depth interview which resulted most were interested to implement if training was given. Regardless of the high percentage of good perception and positive attitude, the correlation analysis showed no association with implementation of EBP.

Barriers of Implementation of EBP among Nurses in TASH

There are several barriers, which exist in preventing the profession of nursing to transition from the use of 'traditional' methods to research-supported approaches to practice. Among the determinants, supportive nursing managers have significant association with implementation of EBP both in bivariate and multi-variate analysis (OR: 2.5, 95%CI: 1.13-5.4 and AOR: 5,95%CI: 1.7-14.5) respectively. Similarly age at 30-34yrs has association with EBP with (AOR: 3.74, 95%CI: 1.2-11.5). Those knowledgeble were3 times higher in implementation of EBP than who have no knowledge for implementation of EBP. Similarly those with skill were 2.4 times higher in implementation of EBP than have no skill. Having free time was also has significant association with implementation of EBP with AOR: 7.9, 95%CI: 3.5-17.6.AOR: 5**,** 95%CI: 1.7-14.5, respectively.

TABLE: 5.2 Multi-variate analyses of Socio demographic characteristics and Barriers of EBP among Nurses in TASH from April-May 2014 G.C.(n=210)

S.N Variables	EBP implementation		Frequency (%)	Crude OR (95%CI)	Adjusted OR (95%CI)
	Yes	No			
1 Age :					
20-24yr	21	21	42(20)	1	1
25-29yr	40	44	84(40)	0.87(0.4-1.83)	1.5(0.59-4.1)
30-34yr	26	7	33(15.7)	3.7(1.32-10.4)*	**9.47(2.4-36.7)**
35-39yr	6	5	11(5.2)	1.14(0.3-4.35)	3.3(0.5-22.6)
40-44yr	7	8	15(7.1)	0.83(0.26-2.7)	1.9(0.19-19.5)
45-49yr	12	2	14(6.7)	6.0(1.2-30.2)*	10(0.45-223.7)
50-54yr	5	0	5(2.4)	----	----
55-59yr	2	2	4(1.9)	0.95(0.12-7.4)	2.2(0.06-79.5)
60-64yr	1	0	1(0.5)	-----	------
>64yr	1	0	1(0.5)	-----	------
2 Marital status:					
Single	64	55	119(56.7)	1	1
Married	55	32	87(41.4)	1.48(0.84-2.6)*	0.88(0.36-2.1)
Divorce	2	2	4(1.9)	0.86(0.1-6.3)	1.2(0.004-416.5)
3. Sex:					
Male	32	22	54(25.7)	1	***
Female	89	67	156(74.3)	0.9(0.49-1.7)	

TABLE: 5.2 Multi-variate analyses of Socio demographic characteristics and Barriers of cont…

S.N Variable	EBP implementation		Frequency (%)	Crude OR (95%CI)	Adjusted OR (95%CI)
	Yes	No			
4. Year of experience:					
1-5yr	71	63	134(63.8)	1	1
6-10yr	26	12	38(18.1)	1.9(0.89-4.1)*	0.68(0.24-2.0)
11-15yr	2	2	4(1.9)	0.88(0.12-6.5)	0.07(0.001-3.96)
16-20yr	2	3	5(2.4)	0.59(0.1-3.65)	0.69(0.05-10.1)
>20yr	20	9	29(13.8)	2.0(0.84-4.6)*	0.48(0.035-6.5)
5. Educational level:					
BSc	117	85	202(96.2)	1	***
MSc and above	4	4	8(3.8)	0.73(0.18-2.99)	
6. Nurse : Staff nurse	93	73	166(79)	1	***
Head nurse	29	15	44(21)	1.4(0.69-2.7)	
7. Knowledge:					
Have no Knowledge	81	27	108(51.4)	1	1
Have Knowledge	40	62	102(48.6)	4.6(2.6-8.4)*	**3.2(1.5-7.0)**
8.Skill:					
Have no skill	39	63	102(48.6)	1	1
Have skill	82	26	108(51.4)	5.(2.77-9.15)*	**2.4(1.1-5.4)**
9.Time :					
Have no Free Time	34	65	99(47)	1	1
Have Free Time	87	24	111(92.5)	6.9(3.75-12.8)*	**7.9(3.5-17.6)**
10. Attitude :					
Negative Attitude	29	26	55(26.2)	1	***
Positive Attitude	92	63	155(73.8)	1.3(0.7-2.4)	
11. Perception :					
Negative perception	11	10	21(10)	1	***
Positive perception	110	79	189(90)	1.26(0.5-3.1)	
12.Nursing managers:					
Not supportive	24	36	60(28.6.)	1	1
Supportive	97	53	159(71.4)	2.5(1.13-5.4)*	**5(1.7-14.5)**

Key: *(Nursing managers, time, marital status, age, experience, skill, knowledge) were have $\alpha < 0.3$ analysed in multi-variate and *** were not included in multi-variate as $\alpha > 0.3$

Level of Use Evidence Based Practice in TASH

Level of Use of Evidence Based Practice in TASH, the total 210, 121(57.6%) of nurses were integrate EBP in their clinical practice. Their levels of use were rated by self-report with three options (sometimes, usually and always). Only 19 (15.7%) use EBP in their clinical practice always.

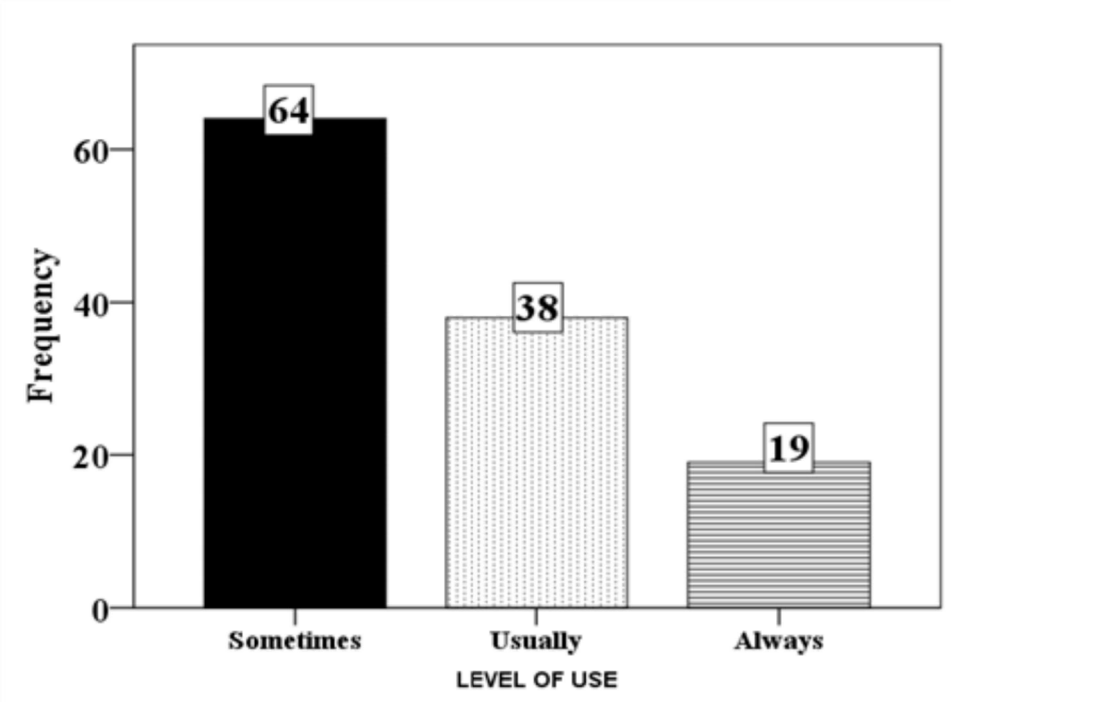

Fig-5.1 Level of use of EBP in TASH by nurses in 2014G.C (n=121)

6. DESCUSSION

Socio-demographic Characteristics

Socio-demographic Characteristics of the response rate (96.8%) obtained in this study was higher than that obtained in other studies which percentages of 60.9% (64). or even lowers (48).However, they are very similar, as far as the proportion of men and women 1 man for every 3 women and 40% the age of the nurses surveyed were between 25-29 unlike the study conducted in Spain with mean age over 40 years and 1man for every 6 women (64). Regarding to the professional experience 63% had 1-5yrs experience which is analogues with Singapore which is (53%) (64).But study conducted in Spain have 53% over 20yrs (64). With respect to the academic level this study have BSC and MSC and above which accounts 96.25 and 3.8%, respectively. unlike study conducted in Singapore which includes diploma in nursing (41.0%), advanced diploma (14.8%) ,bachelor's nursing (41.4%) and master's (2.3%,) (6)But the proportion of BSC to MSC was comparable.

Perception and Attitude of Nurses towards Evidence Based Practice

The perceptions of nurses towards integration of evidence based practice in their clinical practice were good which accounts (90%). There was also a positive attitude (73.8%) towards EBP. This result was also supported from the in-depth interview in which most of the respondents suggest "*it is important for the quality of care but the workload, lack of knowledge and training makes us to follow the prior experience or rely on experts opinions.* "this finding was similar The study was conducted In South Africa trained ICU nurses had a well coming attitude towards EBP (75%) However, there was no association in both perception (OR: 1.26, 95%CI: 0.5-3.1) and attitude (OR: 1.3, 95%CI: 0.7-2.4) with implementation of EBP in this study.

Additionally Study done in Singapore which found more than 64% of the nurses expressed a positive attitude toward EBP. However, they pointed out that due to heavy workload, they cannot keep up to date with new evidence (65).Similarly one study agreed that nurses had a positive and welcoming attitude toward EBP. Yet, relying on expert opinions rather than EBP was the most

common way nurses learn how to practice nursing. Although there was much literature regarding EBP, most of the surveyed nurses either did not know of current evidence-based practices nor did they have the time or support to implement those practices (51). similar studies found nurses generally had a positive and welcoming attitude toward EBP (52).

Furthermore, study from Finland and Iran also found the majority of nurses had positive attitudes toward EBP. However, patient load, heavy workloads and insufficient staffing inhibited the implementation of EBP. Additionally, nurses in this study believed they did not have the power to implement EBP. Nurses reported physician orders not nursing research-directed clinical practice (45,49).

In this study nursing leaders have no significant difference with nursing staff in perception towards implementation EBP. This finding was contradicted the study in USA which resulted nurses in management positions significantly differed with staff nurses in perception. This may be related with lack of managerial skill and training on EBP (43).

Barriers of Evidence Based Practice among Nurses in TASH

The Barriers of implementation of EBP were analyzed in both bivariate and multi-variate level. Similarly nurses were asked to indicate the importance of different factors through in-depth interview. Knowledge has significant association with implementation of EBP. Those who have knowledge were implementing EBP 3times than who have no knowledge about EBP. This was also supported from the in-depth interview as most of them reported lack of knowledge as one factor. A similar significant differences in the Knowledge was reported in Spain (64).

In this study skill was also significant with EBP with AOR: 2.4, 95%CI 1.1-5.4. This finding was consistent with finding of Straus et.al 2013 with p=0.023 and nurses with better skills reported fewer barriers to evidence-based practice (63).Furthermore study conducted in Australia also shows the low use of online medical databases due to lack of adequate search skills and searching experience is a barrier to implementing evidence-based medicine (67).

This study also ends up with statistical significant difference in availability of time and implementation of EBP with AOR:7.9, 95%CI: 3.5-17.6. This finding was analogous with the integrative review and single study from South Africa University highlighted lack of time as a major barrier to adopting EBP (68-69). Similarly study from Finland indicates head nurses do not have the time to study research articles and that was rare for head nurses to discuss article findings with staff and even staff nurses do not have the time to search researching findings (49). Moreover study on Iranian nurses shows patient load, heavy workloads and insufficient staffing inhibited the implementation of EBP (45).But study from Australia shows no significant association between time and implementation of EBP (44).This difference may be related with patient load.

In any sub-scales of the clinical experiences there was no association with implementation of EBP as this study indicated. This was Similar with the study conducted on USA found no significant differences in any of the subscales based on years of nursing experience (43).similarly other study also shows not a statistically significant relationship between the use of EBP and years of experience as a head nurses (49).

But one study shows junior clinical nurses have reported more barriers compared with senior clinical nurses in regard to accessing organizational information such as clinical guidelines and protocols, access to EBP resources, and having time for practicing EBP (50). This may be related with few observations of experience in the sub-scale of clinical experience.

This study also shows supportive nursing managers have association with implementation of EBP (AOR: 5, 95%CI: 1.7-14.5). This was supported by two studies which show Supportive leadership has been identified as being strongly associated with nurses' EBP (61-62).

Furthermore study from Spain shows, nurses has declared the need for a mentor to guide them along the search and implementation of evidence 60. Other studies also identified managers, not only as a key factor for the generation and implementation of EBCP, but also for the creation of a good research environment (56-59).

In this study both educational level (BSc, verses MSc and above) and level of position (staff verses head nurses) have no association with the implementation of EBP. But in other studies nurses with a higher educational level, such as a Master's degree or qualifications at an advanced level, have association with practice of EBP compared with nurses with lower qualifications. This difference may be related with few observations in this study.

Ages of nurses (30-34yrs) have association compared with the age of 20-24yrs in implementation of EBP with AOR: 9.47, 95%CI: 2.4-36.7. This may be related with development of skill, relationship with experts.

The levels of uses in this study were 52.8%, 31.4% and 15.7%, sometimes, usually and always, respectively. This result were comparable with the study conducted in South Africa which found 35.6%, 32.9% and 31.5% use EBP frequently, moderately and rarely, respectively (72).In this study most of the respondent used EBP are sometimes. This might be related with lack of training on EBP.

Strengths of the study

- The use both quantitative and qualitative research design dig out some factors and the perception and attitude were addressed through both design.
- Use of proportional sample among case team coordinator nurses (head nurse) and staff nurses since head nurses are the key agents (motivators) for the implementation of EBP.
- Unlike other studies it have also 96.8% response rate.

Limitation of the study

- 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.
- This study was conducted in only one Specialized hospital (TASH), limiting the generalizability of the results. More hospitals were needed for proper generalization with a bigger sample size.

7. CONCLUSION AND RECOMMENDATION

7.1 CONCLUSION

Even though perception and attitude towards EBP have no association with implementation of EBP, 90% and 73.8%have good perception and positive attitude respectively. Similarly from the in-depth interview most of the respondents had welcoming attitude but they report lack of training, workload and insufficient time were the three top prioritized obstacles. 57.6% of nurses were integrated EBP in their clinical practice. Only 19 (15.7%) use EBP in their clinical practice always.

Knowledge, skill, time and supportive nursing managers have significant association with the implementation of EBP. Those who had knowledge, skill, free time and supportive nursing managers implement EBP than those who have no knowledge, skill, free time and supportive nursing managers.

Generally, both individual (knowledge and skill) and organizational (lack of training, workload, insufficient time and supportive managers) factors are the predominant factors that hinders implementation of EBP. Hospital management and nursing leaders can easily overcome some of these barriers through arranging EBP training and providing time off from work for nurses to learn and implement new techniques. Hospital management needs to make necessary adjustments in the work schedule of nurses to ensure sufficient time for them to learn and implement EBP.

Furthermore, it would be highly desirable to improve the leadership skills for nurse coordinators, as they appear to be key agents in the implementation of EBCP. The commitment of nurses and health managers at the highest level is required to promote a change in achieving EBCP, to assure the highest level of competence and effectiveness which should lead to improved patient outcomes.

7.2 RECOMMENDATIONS

Today more complex management for the patients are needed in the clinical setting, the new approach to clinical decision making known as evidence-based practice (EBP).allows the nurses to make decisions that are evidence-based by using proved information instead of traditional way of thinking. For the nurses to be knowledgeable on EBP and also improve on their EBP, the following recommendations are made relating to practice, nursing education, leaders and research.

- Nursing leaders and hospital managers of TASH should overcome some barriers through training, providing time off, adjustments in the work schedule of nurses to ensure sufficient time for them to learn and implement EBP.
- Nursing leaders should develop a guideline on EBP application with support of stakeholders.
- Researchers should do further study on other area as literatures regarding implementation of EBP were rare in Ethiopia.
- Nursing educators should be promoting knowledge, skills, attitude and a change agent for a paradigm shift toward EBP,
- The hospital will set up a journal club or research discussion group.

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Appendix I: English version Information sheet for study subjects

ADDIS ABABA UNIVERSITYCOLLEGE OF HEALTH SCIENCE DEPARTEMENT OF NURSING AND MIDWIFERY INDIVIDUAL INFORMATION SHEET FOR THE STUDY ON ASSESSMENT OF NURSES'PERCEPTIONS AND BARRIERS ON EVIDENCE BASED PRACTICE (EBP) IMPLEMENTATIONAT TIKUR ANBESSA SPECIALIZED HOSPITAL ADDIS ABABA, ETHIOPIA, 2014.

CONSENT FORM FOR QUESTIONNAIRE

You are kindly invited to participate in this study, which involves BSC and above nurses who are working in Tikure Anbessa Specialized Hospital the aim of this study is to assess Nurses perceptions and barriers on EBP implementation in clinical setting. Evidence based practices (EBP) is application of care that is based on scientific evidence in order to obtain quality patient care and improve outcomes in fulfilling their professional nursing role.

a) **Purpose**: Is to assess Nurses perceptions and barriers on EBP implementation in clinical setting at Tikur Anbessa Specialized Hospital.
b) **Duration**: The duration of this study will be from March 1 to April 10.
c) **Procedures to be carried out**: The procedure of sample collection is easy and straight forward; data concerning your socio demographic characteristics, Nurses Perceptions and Barriers using standardized questioner by three date collectors (nurses).
d) **Risk and discomfort**: There will be no any risk associated during data collection.
e) **Expected benefit**: The finding of this survey will be useful for hospital managements and nursing leaders can easily overcome some of barriers through arranging EBP training and providing time off from work for nurses to learn and implement new techniques, assists bedside nurses in decision making rather than traditional way of thinking.

f) **Confidentiality**: All your personal information collected for the purpose of the present study will be kept confidential.

g) **Compensation**: No compensation will be provided by participating in this study.

h) **Termination of the study**: Participation in the study is voluntary, and refusal to participate involves no penalty or loss of benefits to which you are otherwise entitled. The study participants have a right to keep hold information; decline to cooperate in the study, to refuse provision of data. I would also like to inform you that this study will be approved by Department of Nursing and Midwifery Research and Ethical Review Committee (IRB) and approved by department of internal medicine.

IRB Contact Address:Addis Ababa University, Department of Nursing and Midwifery

Tel: 0115538734,**P.O.Box**: 9086,**E-mail**: aaumfirb@yahoo.com

Participants signature_____

Date_____

Thank you for taking time to read this information letter.

ANNEXES

Annex II. Questionnaires

Questionnaires for quantitative study

Good Morning (after noon) According to its convenience, I am

_____

Who is the data collector for a researcher to be conducted by Almaz Seid, a Master's student at Addis Ababa University, Department of Nursing and Midwifery Today, I am here to clinical work Areas in Tikure Anbessa Specialized Hospital Addis Ababa Ethiopia,2014 " where it is expected to assessment of Nurses perceptions and Barriers on implementation of Evidence Based Practice(EBP), So I want to ask you some questions The purpose of this questionnaire is to assess Nurses perceptions and barriers on EBP implementation in clinical practice in Tikure Anbessa specialized hospital. To make this study significant the researcher requested you to answer each question carefully. Your answer will be kept confidential. No need of mentioning your name or identification number and be sure for reading instructions correctly before giving answers for each question. There is no right or wrong answer for the questions. But make sure that you have read each question carefully, and give the answer you think correct for yourself by making tick(√) on space provided.

1. Name of Health Institution: TIKUR ANBESSA SPECIALIZED HOSPITAL

2. Date: ------/---------/----------

PART-ONE

Scio-demographic Data

1. Age in Year: ☐

2. Sex: Male ☐ Female ☐

3. Address: _____

4. Marital status: Single ☐ Married ☐ Widowed ☐ Divorced ☐

Others (specify)_____

5. Ethnicity: Oromo ☐ Amhara ☐ Tigray ☐ Gurage ☐
others (specify) _____

6. Religion: Orthodox ☐ Muslim ☐ Protestant ☐ Catholic ☐

Other specify _____

7. Year of experience: ☐

8. Educational level: BSc ☐ MSc and above ☐

9. Level of position: Staff nurse ☐ case team coordinator Nurse ☐

PART-TWO

2. QUESTION ON PERCEPTION

S.No	Question	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
	I am able to.					
1.	Identify clinical issues/problems					
2	Translate a clinical issue/problem into a well-formulated clinical question.					
3	Distinguish between different types of questions (e.g., intervention, prognosis, harm, and cost-effectiveness).					
4	Conduct online searches (using databases and web search engines).					
5	Relate research finding to my clinical practice and point out similarities and differences					
6	Use a check list to assess research articles.					

		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
7	Read a research report and have a general notion about its strength and weaknesses					
8	Evaluate the application of intervention and identify areas of improvement					
9	Apply an intervention based on the most applicable evidence					
Nurses' beliefs and attitudes toward evidence-based practice (EBP)						
1	I like people questioning my clinical practices, which are based on established methods.					
2	I'm not preferred using more traditional methods instead of new approaches.					
3	I believe most research articles are relevant to my daily practice					
4	I believe EBP is important for improving patient care quality					
5	I believe evidence-based practice (EBP) has not limited utility.					
6	I believe my workload is not too high to keep up to date with all new evidence					

3. Question on Barriers of implementing EBP

S.No	Question	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
1	I have knowledge to implement EBP Principles.					
2	I have sufficient time to find research reports.					
3	I have sufficient time to find organizational information (guidelines, protocols etc.).					
4	I think that understanding English-language research reports is especially easy.					
5	I find it easy to identify the implications of research findings for my own practice.					
6	Research reports are easy to find.					
7	I know how to find organizational information (protocols, guidelines etc.).					
8	I know how to find appropriate research reports.					

		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
9	There is sufficient time at work to implement changes in practice.					
10	There are sufficient resources (e.g. equipment, internet) to change practice.					
11	The culture of my team is receptive to changing practice					
12	Able to understand statistical terms used in research articles.					
13	Not Difficulty in judging the quality of research articles and reports.					
14	Able to properly interpret the results of research studies.					
15	Not difficulty in determining the applicability of research findings.					

		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
Skills						
16	Inability to implement recommendations of research studies into clinical practice					
17	I know how to find appropriate research reports					
18	Research reports are easy to find					
19	I find it difficult to understand research reports					
20	I feel confident in judging the quality of research reports					
21	I feel confident about beginning to change my practice					
22	I have authority in the work place to change practice					

		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
	Managers and leaders					
23	Doctors with whom I work are supportive of my changing practice					
24	Nurse Managers are supportive of my changing practice					
25	Nursing colleagues are supportive of my changing practice					
26	Nurse case team are supportive of my changing practice					

4. Level of use of practice:

1. Have you ever use EBP in your practice?

Yes ☐ No ☐

2. If yes; how often used?

Sometimes ☐ Usually ☐ Always ☐

Thank you for valuable response and patience!!!

ANNEX III

Questionnaire for qualitative study English Version

1. Do you have knowledge to implement Evidence Based Practice (EBP) principles?
2. Can you tell me about implementation EBP in your setting? Does it have importance or not? If not, why? If yes, Tell me them
3. What are the problems with implementation of EBP? Is that difficult or easy? If yes, how?
4. How can improve implementation of EBP? Are you ready to improve implementation of EBP? If yes, How? If not why?
5. Is your organization or leaders help in implementing EBP? If yes how? If not, why? Are you helping your organization or leader to implement EBP?
6. Have you read nursing researches based on your clinical problem? If yes are you try to share with others? If no why?
7. Is there any implemented EBP? If yes, what are those? Are those has positive outcome? What are outcomes?

Questionnaire for qualitative study Amharic Version

1. በ ጥ ቁ ር አ ን በ ሳ ሆ ስ ፒ ታ ል ጥ ና ታ ዊ ጹ ሁ ፎ ች በ ስ ራ ላ ይ እ ን ዲ ሁ ሉ እ ውቀ ት አ ለ ህ (ሽ) ወ ይ ?
2. በ ጥ ቁ ር አ ን በ ሳ ሆ ስ ፒ ታ ል ጥ ና ታ ዊ ጹ ሁ ፎ ች በ ስ ራ ላ ይ እ የ ዋ ሉ ነ ው ወ ይ ?

ል ት ነ ግ ረ ኝ (ል ተ ነ ግ ሪ ኝ) ተ ች ላ ለ ህ (ሽ)? ጥ ቅ ም አ ላ ቸ ው ወ ይ ስ የ ላ ቸ ው ም ? የ ላ ቸ ው ም ከ ሆ ነ ለ ም ን ? አ ላ ቸ ው ከ ሆ ነ በ ዝ ር ዝ ር ን ገ ረ ኝ (ን ገ ሪ ኝ)?

3. ጥ ና ታ ዊ ጹ ሁ ፎ ች በ ተ ግ ባ ር ሲ ው ሉ ም ን ች ግ ር አ ላ ቸ ው ? ቀ ላ ል ነ ው ወ ይ ስ ከ ባ ድ ? ከ ባ ድ ከ ሆ ነ ለ ም ን ? ቀ ላ ል ከ ሆ ነ እ ን ዴ ት ?
4. ጥ ና ታ ዊ ጹ ሁ ፎ ች ን በ ስ ራ ላ ይ እ ን ዲ ወ ሉ እ ን ዴ ት ማ ሻ ሻ ል ይ ቻ ላ ል ? ጥ ና ታ ዊ ጹ ሁ ፎ ች ን ለ ማ ሻ ሻ ል በ ግ ል ህ (ሽ) ዝ ግ ጁ ነ ህ (ሽ) ወ ይ አ ዎ ከ ሆ ነ እ ን ዴ ት ? አ ይ ደ ለ ም ከ ሆ ነ ለ ም ን ?
5. ሆ ስ ፒ ታ ሉ ወ ይ ም ሀ ላ ፊ ነ ር ሶ ች ጥ ና ታ ዊ ጹ ሁ ፎ ች በ ስ ራ ላ ይ እ ን ዲ ሁ ሉ ያ ግ ዟ ች ኃ ል ይ ? አ ዎ ከ ሆ ነ እ ን ዴ ት ? አ ይ ደ ለ ም ከ ሆ ነ ለ ም ን ? አ ን ተ (ቺ) ጥ ና ታ ዊ ጹ ሁ ፎ ች በ ተ ግ ባ ር እ ን ዲ ሁ ሉ ለ ሆ ስ ፒ ታ ሉ ና ለ ሃ ላ ፊ ነ ር ሶ ች እ ገ ዛ አ ድ ር ገ ሃ ል (ሻ ል) ወ ይ ?
6. በ ስ ራ ላ ይ በ ሚ ያ ጋ ጥ ሙ ህ (ሽ) ች ግ ሮ ች ተ መ ር ኩ ዘ ህ የ ነ ር ሶ ች ን ጥ ና ታ ዊ ጹ ሁ ፍ ን አ ን ብ በ ሀ ል (ሻ ል) ወ ይ ? አ ዎ ከ ሆ ነ ለ ስ ራ ባ ል ደ ረ ቦ ች ህ ለ ማ ካ ፈ ል ሞ ክ ረ ሀ ል (ሻ ል) ወ ይ ? አ ል ሞ ክ ር ኩ ም ከ ሆ ነ ለ ም ን ?
7. ጥ ና ታ ዊ ጹ ሁ ፎ ች ን መ ሰ ረ ት ያ ደ ረ ገ የ ተ ሰ ራ ስ ራ ታ ው ቃ ለ ህ (ሽ)? ወ ጤ ታ ማ ና ቸ ው ወ ይ ? አ ዎ ከ ሆ ነ ም ን ም ን ና ቸ ው ?

DECLARATION

The thesis my original work,has not been presented for a degree in only other university and that all sources of material used for the thesis have been acknowledged.

Name: _ALMAZ SEID AMEDIE___

Signature: _____

Place: _____

Date of Submission: _____

The thesis has been submitted for examination with my approval as a University advisor.

Name: _____

Signature: _____

Date: _____