ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY

CULTURAL COMPETENCE AND ASSOCIATED FACTORS AMONG NURSES WORKING IN TERTIARY HOSPITALS IN ADDIS ABABA, ETHIOPIA, 2018

PRINCIPAL INVESTIGATOR: BONSA AMSALU (BSC N)

ADVISORS: MR. HABTAMU ABERA (ASS'T PROF., PHD CANDI)
MR. YOSIEF TSIGE (MSC N)

A THESIS SUBMITTED TO ADDISS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY IN PARTIAL FULFILLMENTS OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCES IN ADULT HEALTH NURSING

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Statement of the author

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

This thesis is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at college of Health Sciences, School of Nursing and Midwifery. The thesis will deposit in the Addis Ababa University digital Library and is made available to local, national and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

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Acronyms and Abbreviations

AAN	American Academy of Nursing
ANOVA	Analysis of Variance
AOR	Adjusted Odd Ratio
CAS	Cultural Awareness Scale
CCA	Cultural Competence Assessment
CCB	Cultural Competence Behaviors
CCN	Critical Care Nursing
CCQN	Cultural Competence Questionnaire for Nurses
CCT	Cultural Competence Training
CVI	Content Validity Index
IAPCC-R	Inventory Assessment Process of Cultural Competence for health care provider Revised
NCCS	Nurse Cultural Competence Scale
PNCCR	Perceived Nurse Cultural Competence Rating
PTT	Papadopoulos, Tilki and Taylor
SPMMC	Saint Paulo's Millennium Medical College
SPSS	Statistical Package for the Social Science
TASH	Tikur Anbessa Specialized Hospital
TSCH	Torhayloch Specialized and Comprehensive Hospital
UK	United Kingdom
USA	United States of America

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ABSTRACT

Backgrounds: Ethiopian nurses are facing culturally diverse population predominantly due to coexistence of multicultural and multiethnic society in the country. Hence, being able to provide culturally competent nursing care is essential for such culturally diverse population.

Objectives: The main aim of this study was to assess level of cultural competency and its associated factors among nurses working tertiary hospitals in Addis Ababa, 2018.

Methodology: An institution based cross sectional study design using quantitative and qualitative method was conducted on nurses working in tertiary hospitals in Addis Ababa from March 1- April 30, 2018. Systematic random sampling technique was used to select 352 nurses and purposive sampling technique was used to recruit nurses for interview. Data was collected using English version self administered self-made cultural competence questionnaire for nurses (CCQN) scale and semi structured questions through face to face in depth interview. Data was entered into EPi data manager version 4.2.2 and exported to SPSS software version 20.0 and analyzed using descriptive statistics, independent t-test and one way analysis of variance (ANOVA). Qualitative data was analyzed using thematic data analysis method and integrated with quantitative data using triangulation approach.

Results: A total of 343 participants were involved in the study with response rate of 97.4%. The overall cultural competence level of participants was low to moderate (1.94±0.65) with the highest mean was scored for cultural sensitivity (2.54±0.69) and the lowest mean was scored for cultural skill (1.62±0.98). participants' age, religion, level of education, work experience, current role, ability to speak beside Amharic and English language, previous cultural care education, experience in other hospitals, experience in caring for diverse patients and use of interpreter service were the factors significantly associated with cultural competence at $p < .05$. Qualitative finding formulated four themes: cultural competence, linguistic competence, cultural competence education and barriers encountered by nurses.

Conclusion: Despite cultural competence of participants was low to moderate; they expressed respect for cultural and religious practice of patients and showed an interest to learn about cultural nursing care. Cultural competence of participants was hindered by several barriers and influenced by several factors that need nurses to overcome it. Therefore, nurses and other responsible bodies should struggle to improve cultural competence of nurses. Lastly, a national representative study with patient's perspectives was recommended.

Key words: Cultural competence, Nurses, Barriers, Tertiary hospital, Addis Ababa

1. INTRODUCTION

1.1. Background

The concept of cultural competence was first emerged in the late 1980s in response to increasing cultural diversity among the recipients of nursing care services in the USA by Dr. Madieline Leininger. According to Leininger cultural competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations (1). Since then, cultural competence was described by many nursing scholars somewhat in different ways (2-5). But recent and most widely used definition describes cultural competence as an ongoing process in which the health care provider continuously strives to achieve the ability to effectively work within the cultural context of individual, family, or community from a diverse cultural background (3, 6).

The ultimate goal of cultural competency in nursing care is to reduce health disparity and to provide optimal nursing care to patient regardless of their race, ethnic background, native language spoken and religious or cultural belief (7). Health institutions are environments where cultural diversities are rich as both individuals receiving service and the health professionals providing this service possess different cultural properties (8). Such cultural diversities can leads to misunderstandings, conflicts, negative attitudes, ethnocentrism, racism, discrimination, prejudice and stereotyping (9).

Nurses are increasingly working in culturally diverse population mainly because of immigration and globalization in western countries (3, 10). Medical tourism is another reason for cultural diversity. In Thailand, India, Singapore, and Malaysia medical tourists are the major sources of patients' cultural diversity (11). But, in Ethiopian nurses are facing culturally diverse population predominantly due to coexistence of multicultural and multiethnic society in the country. Ethiopia is the second largest African country following Nigeria with estimated 102.4 Million people by 2017 and one of the most ethnically diverse nations with more than 80 ethnic groups each with their own language, norms, belief, and religion in the world (12).

The five major ethnic groups are Oromo (34.4%), Ahmara (27%), Tigre (6.1%), Somale (6.2%) and Sidama (4%) with Afan Oromo (33.8%), Amharic (29.3%), Somali (6.2%), Tigrigna (5.9%),

and Sidamo (4%), are the five dominantly spoken languages in the country. Orthodox Christian (43.5%), Muslim (33.9%) and Protestant (18.5%) are major religion in the Ethiopia (13). In addition, Ethiopia is the second largest refugee hosting country in Africa with more than 800,000 refugees from neighboring countries (14). Generally the existence of multicultural societies has increased the need for culturally competent nurses in Ethiopia.

Research has suggested that culturally competent nursing care may enhance communication with patients, which in turn could increase patient satisfaction and compliance with prescribed treatments, address bias and prejudice as contributing factors in health disparities (15-17). Therefore, being able to provide culturally competent nursing care is essential for the country like Ethiopia with the diverse cultural population.

1.2. Statement of the problem

Today nurses are facing a world in which they are almost forced to be cultural competent. Diversity between nurses and patients in terms of race, ethnicity, religion and culture and language may contribute to health disparities and culturally discordant care. Hence, culturally discordance nursing care arises from unaddressed culturally difference between nurses and patients. This means patients do not look, feel, understand and respond like nurses do (6).

Studies have indicated that there are considerable evidences on unequal treatment and existence of health inequalities or disparities in the healthcare among culturally diverse population (10). In order for nurses to care for the patients and to take his/her cultural background, beliefs, values and traditions into consideration within the context of nursing care, the literature emphasize the need for nurses to develop cultural competence (4, 16, 18, 19).

Globally cultural competence in nursing care has gained attention and is now recognized by health policy makers, care administrators, academicians, nurses and nursing researchers as a strategy to eliminate health disparities (7, 20, 21). In 2016 American Nurses Association recognized and included for the first time, standard of culturally congruent practice in the scope and standards of nursing practice (22). American academy of nursing (AAN) has also developed universally applicable guidelines for implementing culturally competent care which can be serve as a resource for nurses in various roles (23).

However, lack of clarity around the concept of culture, inadequate recognition and the scarcity of research based outcomes of cultural competence that provides evidence of efficacious strategies are still limits implementation of cultural competence in nursing practice (7). Several studies proved that cultural competence of nurses could be highly influenced by different factors; such as level of education, nurses' year of experience, one's own ethnicity, age, sex, and frequency of caring for the patients from different cultural backgrounds (11, 24, 25). These factors can leads to culturally discordance and poor quality of nursing care which in turn may put patients at risk for delays in treatment, inappropriate diagnosis, non-compliance with healthcare regimens, and even death of patients (26).

These problems are manageable if a nurse can incorporate standards and guidelines of cultural competence into nursing practice. Therefore, properly implementation of culturally competent nursing care has numerous benefits, including greater health equality, increased patient satisfaction, enhanced communication, , greater medication adherence , increased nursing care seeking , and decrease overall medical care costs (27, 28).

Providing culturally competent nursing care is highly stressed because everyone has culture and to deliver culturally appropriate care nurse must understand his or her own culture and that of the patients culture (1, 16, 19, 29) . As the result of this there are many challenges when nurses are caring for people who have different cultural background from theirs. The main challenges nurses describes are associated with cultural differences in communication styles, health literacy gap and the limitations of working with interpreters (5).

The nurses perceived the fear of mistakes and crossing boundaries related to the cultural and religious practices of patients (5, 30). Misunderstanding and misinterpretations are the most obvious challenges occur when a nurse and a patient do not speak the same language (31, 32). Nursing profession will be also challenged to recruit and retain a culturally diverse nursing workforce that mirrors the demographics of general population (33).

Despite, these challenges of providing cultural competent care, there has been a growing need for cultural competent care that eliminates inappropriate care practices and promotes culturally based nursing care. For this reason, determining nurses' culturally competence is vital. As far as my knowledge cultural competence among nurses is not studied in Ethiopia although nurses are working in diverse socio-cultural society. Therefore, the present study was investigated the level of cultural competence of nurses and its influencing factors in tertiary hospitals of Addis Ababa, Ethiopia.

2. LITERATURE REVIEW

2.1. Introduction

The literature review of this study was covered the period from the 2010s for related article focusing on the cultural competencies of nurses and factors affecting it and period from the introduction of trans-cultural nursing theory for theoretical over view of cultural competence to the present time. To search those literature different printed materials and computer data-bases like; AAU library data base, HINARI, Google scholar, Pub Med, and CINAHL were used.

The findings of these literature searches were analyzed, categorized and presented into five subsections: cultural competence of nurses, factors affecting cultural competence of nurses, barriers of cultural competence of nurses, theoretical over view of cultural competence and conceptual framework of the study.

2.2. Cultural competence of nurses

Multi centric Survey done in 2015 shows that the overall cultural competence of nurses in Italia was moderate with mean range of 1.96-6.96. This study also shows cultural behavior of nurses was in the moderate range (mean = 4.33) but their cultural awareness and sensitivity was moderately high (mean = 5.41). The result of this study also added that 33 % and 20% of nurses were rated themselves as somewhat competent and as somewhat incompetent respectively (34).

However, another descriptive correlational study in the United States reveals that cultural competence of obstetric and neonatal nurses was moderately high (mean=5.38). This study also reported that less than two thirds (59%) of nurses were ranked their cultural competence level as somewhat competent (35).This is also true for study done in Canada to investigate cultural competence of registered nurse (mean = 5.22) (9). Mixed study done in Texas using Nurses' Cultural Competence Scale (NCCS) shows that cultural competences of Texas nursing faculty was moderate (m=162.3±21.70). They scored lower on cultural knowledge(m=33.8) and skill (m= 54.3) and higher on cultural awareness(m= 14.5) and sensitivity (m= 32.8) subscales (36).

In 2015, Cross-sectional study in Taiwan shows that the cultural competence of the participants was in the low to moderate range (m=109.99±22). This study also revealed that nurses were scored relatively higher mean scores for the subscales of cultural awareness and cultural sensitivity and lower scores for the subscales of cultural knowledge and cultural skills. Finding of this study added that majority of nurses (60%) were generally perceived themselves as being not culturally competent when caring for clients who were from culturally or ethnically diverse backgrounds (37). Similar finding was reported in Japan that cultural competence of Japanese nurses was low to moderate (m= 53.85 ±5.28) with higher mean scores for the subscales of cultural awareness and cultural sensitivity and lower scores for the subscales of cultural knowledge and cultural skills (38).

Another cross-sectional study in Thailand also shows cultural competence of nurses was in the low to moderate ranges. This study also reported that three fourths of the nurses (75.9%) had little knowledge about cultural competence but, 63.3% and 71.7%) of nurses had moderate attitude and practice towards cultural competency respectively (24). Descriptive survey using a self-report questionnaire in similar country shows that the nurses' cultural competency in caring for clients living in a multicultural setting was at a moderate level (m= 14.47±1.940). This study also reveals that cultural desire, cultural awareness and cultural encounter were at a high level mean of 3.23, 3.11, 3.08, respectively whereas cultural skill and cultural knowledge were at a moderate level mean of 2. 84, 2.21, respectively (39).

Study done in Korea in 2012 indicates that mean of cultural competency of general hospital nurses was 2.57±0.43 (40). Another study in similar country on factors affecting the cultural competence of visiting nurses shows that cultural competence score of the visiting nurses was 3.07± 0.3 (41). Study conducted in Iran on cultural competence among nurses shows average score of cultural competence of nurses was at a moderate level (89.47- 140.59). The results of this study also reveals that the highest average score of participants was for preparation to cultural care (mean= 50.16) and the lowest average for attitudes towards cultural care (mean= 12.60) (42).

In 2015 descriptive cross-sectional study done in Saudi Arabia indicates nurses were culturally competent in providing nursing care for the patients and families (43). But, study in Israel on cultural competence of nurse shows that only 29% of hospital nurse were culturally competent to treat patients from different cultural background origins. The finding of this study added that average cultural awareness of the hospital nurses in Israel is high (mean=4). But, they were less knowledgeable (mean=3.02,) and less skilled (mean=3.33)(26). Another study in the same country supported that there is a lack of knowledge regarding cultural competence among the Israeli nurses. The study identified that lack of training about cultural competence was reason for lack of cultural knowledge (44).

A quantitative survey using IAPCC-R tool in South Africa reveals that only 26% of critical care nurses (CCNs) were involved in culturally appropriate nursing care. The study also shows that critical care nurses (CCNs) were scored highest (14.8) for cultural knowledge subscale which shows that critical care nurses (CCNs) were most involved in the process of making an effort to learn about increasing and improving their own cultural knowledge. The lowest scored constructs were cultural skill (13.70) and encounters (12.60). This highlights critical care nurses (CCNs) were not involved in collecting relevant cultural data regarding the patients' presenting problem (27).

Institution based cross-sectional study design conducted in Bahir Dar city shows that the overall competency level of maternal health care providers was 57.3 %. This study added almost three fourth (73.0 %) of maternal health care providers were near to in awareness stage which is the earliest stage of competence in which individuals were aware only their own culture but not the world view of their clients (45). Another institution based qualitative study done in similar country on status of cultural competence of health worker reveals that the health care service at Jimma University Specialized Hospital was less in touch with cultural, linguistic and religious background of patients (46).

2.2. Factors associated with Cultural competence of nurses

Study done in USA reveals that cultural competence of nurses were positively correlated with years of nursing experience (r =0.25, p < .01), years of experience within the specialty area (r = 0 .20, p <0 .05), and number of types of previous cultural diversity training completed (r = 0.19, p <.05). But, cultural competence assessment (CCA) scores were negatively correlated with age (r = –0.20, p <0.05) and no correlations were found between cultural competence assessment (CCA) scores and previous diversity training (35).

Another study in Italia indicates that the mean scores of nurses were increased with level of education (p <.001) for both cultural awareness and sensitivity (CAS) and with Years of experience (p =.008) for cultural competence behaviors (CCB) and (p = .01) for cultural awareness and sensitivity (CAS). According to this finding a nurse who participate in more than one training event was also associated with higher cultural competence behaviors (CCB) scores (p < 0.00) (34).

A randomized controlled trial to evaluate the extent to which cultural competence training affects cultural competence of nurses working in the health services in Stockholm and Sormland counties reveals that intervention group showed a statistically significant improvement in cultural knowledge, skill and encounters level when compared with the control group after three day training. But no statistically significant change was found on cultural awareness level (47). Similar study done in Switzerland to assess the effects of cultural competence training (CCT) also found significantly improves knowledge (p = 0.001), awareness (p = 0.002) and to some extent skills (p=0.06) in providing care to culturally diverse patient (48)

Study in Canada indicates that age and country of birth of nurse was significantly associated with cultural competence with p = .05, and p= .03, respectively. According to this study nurse born in Anglo-Saxon countries (USA, UK, Australia, and Netherland, Canada) and European countries had the highest mean of critical cultural competence (CCC) scores than Asian countries (9). Similarly study conducted in Saudi Arabia shows staff nurses from Pakistani, Sudanese and Nigeria were highly cultural competent when compared with nurse from Indians and Filipinos (43).

Study assessed cultural competency level of registered nurses in North Carolina showed that level of education, nursing experience, and continuing cultural education are major factors that influence cultural competence, whereas gender and race/ethnicity have no influence (49). Research done in Korea reveals that most of visiting nurses (78.0%) and community health nurses (85.7%) have not received multicultural education even though Participation of multicultural education was reported as influencing factors of cultural competence of nurses (50).

Cross sectional study done to explore the level of cultural competency and the factors affecting the cultural competency of nurses in Thailand found that knowledge of different cultures was associated with nurses' responsibility ($p= .02$), age of nurse ($p= .00$) and level of confidence of the nurses ($p = 0.00$) while attitude towards different cultures was affected by work shift ($p=.00$), level of confidence ($p=.00$) and marital status of nurse ($p=.00$). Cultural practice was associated with confidence level of the nurses ($p =.04$) and attitude of nurses ($p=.00$) (11).

Study done in Taiwan indicates that there is significant correlation between the total score and hours of continuing education related to cultural nursing care ($r = 0.27$, $p <.01$), and frequency of caring for clients from culturally and ethnically diverse backgrounds ($r = 0.22$, $p = .01$). There are also significant relationships between the perceived nurses' cultural competence rating (PNCCR) score and years of nursing work experience ($r = 0.24$, $p < 0.01$), number of hours spent attending continuing education programs ($r = 0.21$, $p = 0.01$), and frequency of caring for clients from culturally and ethnically diverse backgrounds ($r = 0.32$, $p < 0.01$). But, according to this study Age and educational level of nurses did not correlate significantly with the total nurses' cultural competence scale (NCCS) or the perceived nurses' cultural competence rating (PNCCR) (37).

Study done in Japan found significant mean differences in the total IAPCC-R score among groups based on ability to speak a foreign language (F (2, 1031= 23.391), $p < .001$, $\eta 2 = .043$), learning experience about the concepts of cultural diversity (F(1, 1032) = 21.815, $p < .001$, $\eta 2 = .021$), experience taking courses related to cultural nursing care (F (1, 1032) = 21.450, $p < .001$, $\eta 2 = .020$), experience taking workshops/classes related to cultural nursing care (F (1, 1027) = 15.848, $p < .001$, $\eta 2 = .015$), and experience in caring for clients from culturally and ethnically diverse groups (F (1, 1027)= 25.744, $p < .001$, $\eta 2 = .024$). However, significant mean differences in the total IAPCC-R was not found among age (p = .34), length of clinical experience (p =.90), professional qualifications (p = .01), overseas living experience (p = .01), length of overseas living experience (p = .06), frequency in caring for culturally and ethnically diverse clients (p = .005) groups (38).

In addition, another study in Iran shows that there was significant difference in the scores of cultural competence between females and males (P=.00), so that the level of cultural competence was higher in females compared with males. A significant correlation was found between cultural competence and years of work experience (P=.04), which implies that the level of cultural competence improved with increasing work experience (42).The study in Saudi Arabia found that cultural competency of the expatriate nurses was a significantly associated with their age, gender, educational status, nationality and length of service. Accordingly, older male with higher educational status and longer year work experience in the hospital expatriate nurses are more cultural competent than others (43).

Another research conducted in Israel also shows that age difference (p< 0.001)), years of experience in the hospital ward (p< 0.001)), ethnicities difference (p< .001) are variables those significantly associated with perceived cultural competence of nurse. But, no relationships were found between Gender differences, nurses' confidence in providing culturally adequate care and caring for patients of various cultural backgrounds and meeting various cultural groups at work. This study also reveals that each subscale of cultural competence positively and significantly correlated to each other’s (25).

Prospective research done to compare cultural competence of undergraduate and graduate degree nurses reveals that Nurses with undergraduate degrees had slightly lower levels of cultural awareness, knowledge, skills, and comfort than graduate degree. But, significant difference was found in only levels of cultural knowledge. This indicates that additional continuing education did not lead to a significant difference in the level of cultural competencies between the two groups of nurses. The study also shows that both undergraduate degree (M = 0.86) and graduate degree nurses (M = 0.73) received very little cultural diversity training in their workplace (51).

Research conducted in selected public hospital in KwaZulu-Natal reveals that language, religion and race were associated with cultural competence of nurses. Nurses from non English-speaking background primarily Zulu-speaking scored significantly higher ($p < .001$) than English-speaking nurses in cultural competence (66.3). Christian nurses ($p < .02$) and black nurses ($p<0.00$) were scored significantly higher than other religion and race respectively. However, there are no significant differences between cultural competence and age, gender, education status, marital status, intensive care unit type and place of birth (26).

Study done in Ethiopia shows that Female maternal health worker almost six times (AOR, 5.50; 2.71, 11.30) more culturally competent than male maternal health worker. According to this study those who got in-service training related to maternal care provide services were more culturally competent than their counter parts with AOR, 3.5; 1.4, 8.64 (45).

2.4. Barriers to cultural competence of nurses

There are many barriers that may hinder nurses from being culturally competent. Language difference between nurses and patients was the most frequently reported obstacles to the provision of culturally competent care (11,32, 52). Study in Saudi Arabia shows that language difference was the top obstacle for nurses that forced 87% of nurses to use another language other than their own during nursing care. Lack of clear cultural competency standards or policies to guide nursing care and lack of cultural in-service education were also mentioned by nurses as barriers(32).

In agreement to this cross sectional study done in USA reported that cultural knowledge and skills of registered nurses were low due to lack of cultural diversity training in their basic nursing education and work place continuing nursing education (53). Another barriers described by nurses are characteristics that influence nurses' ability to provide culturally congruent care include: multicultural exposure and professional experience; communication barriers include: fear, distrust, racism, bias; healthcare environment related barriers including bureaucracy, non-supportive administration, and rigid policies and procedures (54, 55).

Several studies have identified that provision of culturally competent care for culturally diverse patients will be hindered when nursing workforce is not mirror image with general population (56). Qualitative study done in Carolina reveals that religious views, different health practices, and culturally inappropriate nonverbal communication were barriers encountered by nurses(49). Nurses describes that their patients are eager to speak in their own language, although they knew that the nurses do not understand them. Because the studies shows that People often feel that their own language is superior to other languages in giving instructions and information between patients and nurses (57).

Cultural difference and misunderstanding of culture is also major barriers to provide cultural competent nursing care (25, 57). Because, nurses perceived the fear of mistakes and crossing boundaries related to the cultural and religious practices of patients (58).

Cultural competence intervention strategies that enable nurses to overcome these barriers are education and training of the nursing workforce, culturally specific health programs, recruitment of an indigenous nursing workforce and development of interpreter services(59, 60).

2.5. Theoretical view of cultural competence

Understanding the impact of culture on an individual's perceptions of health is the basis of cultural competence in nursing practice. Madeleine Leininger was the first nurse researcher to approve the importance of culture in nursing care. In her test book culture care diversity and universality; she stated that nurses must take the cultural belief, caring behaviors and values of individuals, families, and groups into consideration to provide effective, satisfying and culturally congruent nursing care (16).

She also developed Sunrise Model that used to show factors influencing cultural care including worldwide, social structure, language, ethno history, environmental context, and the generic and professional systems (1).

Following Leininger many nursing theorists developed different theoretical models for cultural competence. Theorist Dr. Josepha Campinha-Bacote developed the process of developing cultural competence model which encompasses five constructs of cultural competence: cultural awareness, cultural knowledge, cultural, cultural encounters, and cultural desire. According to her nurse engages in becoming culturally competent, rather than being culturally competent. Thus, achieving cultural competence is a process, not an event (18).

Nursing theorists Giger and Davidhizar believed that each client is culturally unique individual and clients should be assessed according to six phenomena that vary among cultural groups and affect health care. These are environmental control, biological variations, social organization, communication, space, and time orientation (61).

Another widely used cultural competence model is Papadopoulos, Tilki and Taylor (PTT) model which was first developed in 1994 and published in 1998 (62). It describes the nurse's capacity to provide effective health care that takes into consideration the patient's cultural beliefs, behaviors and needs in the nursing process. The model includes four components of cultural competence: cultural awareness, cultural knowledge, cultural sensitivity and cultural practice (63). It has been used as a frame work in exploring the perceived learning and teaching needs of practitioners and students, in determining cultural competence level of nurses and in the development and psychometric evaluation of cultural competence scale for nurses (62-64). The present study will also used PTT model as a framework.

2.6. Conceptual framework of the study

This study was guided by two models: Papadopoulos, Tilki and Taylor model (PTT) and ecological model. PTT model is one of nursing theories that facilitate understanding of how nurses provide a care for patients from different cultural background and patients' demand of nursing care regardless of their cultural, religious and linguistic background in nursing practices. It describes nurse's capacity to provide effective nursing care that takes patient's cultural beliefs, behaviors into consideration. According to this model, to be culturally competent every nurse must pass through four stages of the PTT model. These stages are cultural awareness, cultural knowledge, cultural sensitivity and cultural skill (4).

However, many studies in different parts of the world reviewed that these stages and over all cultural competence of nurses were influenced by different factors like socio-demographic factors, cultural experience related factors and organizational related factors (11,47, 65). The following conceptual frame work illustrates the possible relationship between these factors and cultural competence as well as its subscales based on ecological model. Ecological model emphasizes on interaction and interdependence of different factors within or across multiple level of influence (66).

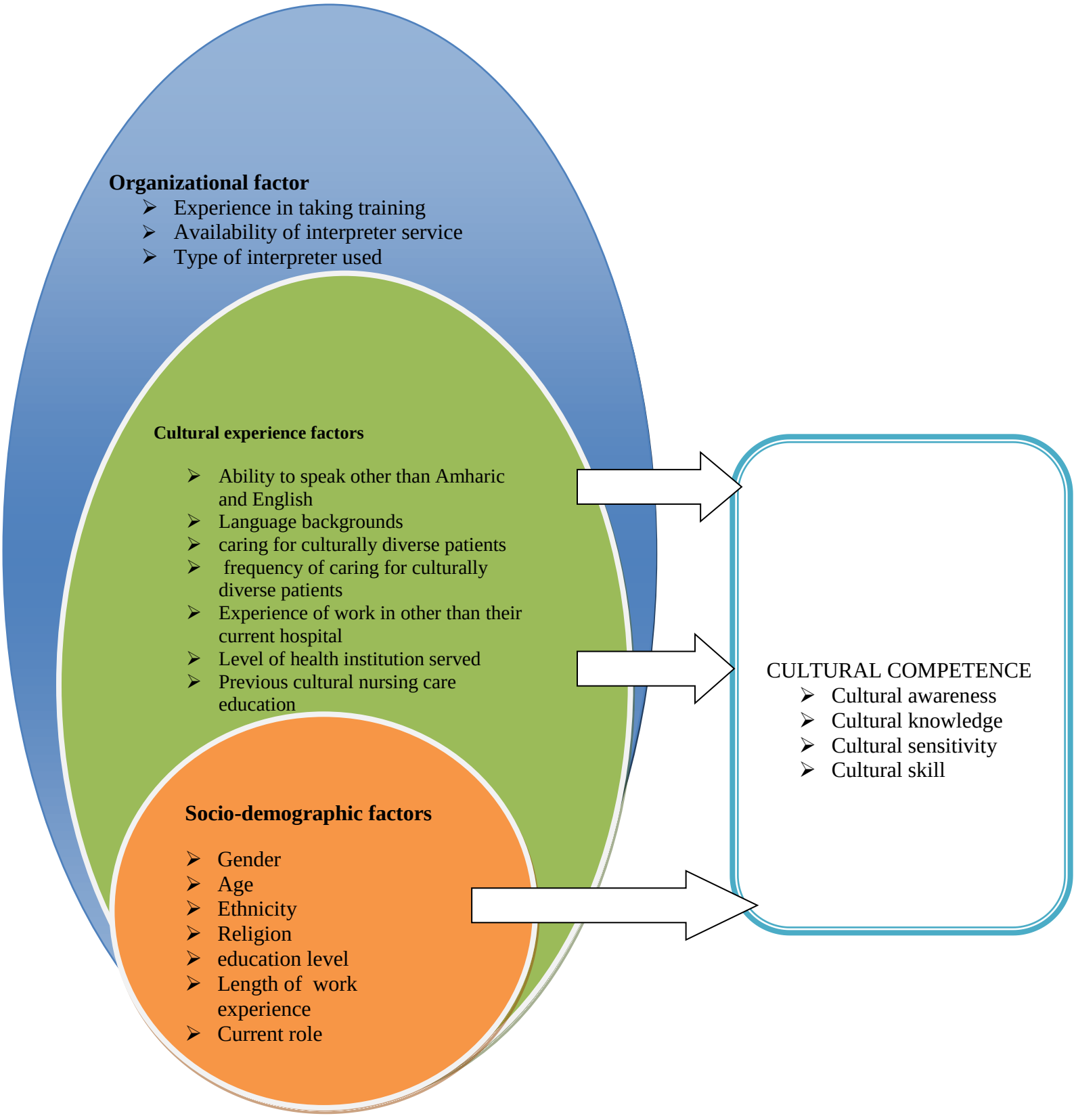

Figure 1: Conceptual framework of cultural competence based on ecological model and Papadopoulos, Tilki and Taylor (PTT) Model

3. JUSTIFICATION OF THE STUDY

Globally concluded that the major causes of health disparities is existence of cultural diversity among the general population (67). Studies have identified that delivering culturally competent care is a powerful tool to eliminates this longstanding disparities in the health status of people of diverse cultural, racial, and ethnic backgrounds (68, 69). However, study shows that many nurses have given minimal or no attention to monitoring the cultural competence of their own and members even if standard of culturally congruent nursing care in nursing practice and others guidelines for implementing culturally competent care persuaded them to be culturally competent (28).

Therefore, assessing the level of cultural competence among nurses and taking appropriate action is one strategy to increase cultural competence of nurses in nursing practice. Many studies exist that examine cultural competence of nurses. However, majority of these studies have been conducted in United States, Canada, the UK and Australia while only a few studies have been conducted in Africa (26, 64).

Despite existence of multicultural society that needs nurses to be culturally competent, cultural competence has not received attention in Ethiopia (42). To the best of my knowledge, there is no published study on cultural competence of nurses in the Ethiopia. Hence this study was aimed to determine the level of cultural competence and to identify the factors associated with it among nurses working in tertiary hospitals in Addis Ababa.

4. SIGNIFICANCE OF THE STUDY

This study was designed to investigate the level of the cultural competencies of nurses and its influencing factors in tertiary hospitals of Addis Ababa. Therefore, the result of this study will guide nurse educators in preparing a culturally competent nursing workforce. It is also hoped that the finding from this study may be helpful in designing a future nursing educational plan and in-service training program for professional nurses in Ethiopia. The knowledge gained from this study will also trigger governmental and administrative agencies to regulate and provide guidelines on culturally competent nursing care.

The findings from this study will improve awareness of nurse related to cultural competence and provide an evidence for future efforts aimed at providing culturally competent nursing care to culturally diverse population. This in turn, might improve quality of nursing care delivered for ethnically and culturally diverse patients. The findings of this study might also helps to provide base line data for researchers who want to conduct further study on cultural competence of nurses. Hopefully, this study may expand the existing literature on cultural competence of nurses.

5. OBJECTIVES OF THE STUDY

5.1. General Objective

The main aim of this study was to assess level of cultural competency and its associated factors among nurses working in tertiary hospitals in Addis Ababa, Ethiopia, 2018.

5.2. Specific Objectives

The specific objectives of this study were

- To determine level of cultural competency among nurses working in tertiary hospitals in Addis Ababa
- To identify factors associated with cultural competency of nurses working in tertiary hospitals in Addis Ababa
- To explore barriers encountered by nurses in providing culturally competent nursing care

6. METHODOLOGY OF THE STUDY

6.1. Study area and period

The study was conducted in Addis Ababa. Addis Ababa is the capital city of Ethiopia which is located in the heart land of the country and home to almost all ethnic groups in Ethiopia with estimated 6.6 million people by 2017. The four major ethnic groups living in the Addis Ababa are Ahmara (47%), Oromo (19.5%), Tigre (6.2%), Gurage (1.6%) and Amharic (70.8%), Afan Oromo (11%) and Tigregna (3.6%) are the three dominantly spoken languages in the city. Addis Ababa also harbors a large population of foreign residents like Eritrean, Kenyan, Sudanese and Djiboutian (12). Addis Ababa has 51 hospitals, 84 health centers and around 700 private clinics out of which 75 are higher clinics (70).

Tikur Anbessa Specialized Hospital (TASH), Saint Paulos hospital millennium medical college (SPHMMC) and Torhayloch specialized and comprehensive hospital are the three largest and tertiary hospitals in the Addis Ababa. TASH is the largest referral and teaching hospital and sees approximately 370,000 – 400,000 patients a year. It has 986 Nurses in different qualification (71). SPHMMC is another largest hospital with an inpatient capacity of more than 700 beds and see an average of 1200 clients from emergency and outpatient daily. The college has 903 nurses with different qualification (72). Torhayloch specialized and comprehensive hospital is owned by defense force and has been providing specialized service with 180 nurses (73).

These three hospitals have been providing specialized clinical services to the whole nation referred from Addis Ababa and all over the country. Therefore, they are appropriate for this study. The Study was conducted from March –April, 2018.

6.2. Study design

An institution based descriptive cross sectional study design using quantitative and qualitative method was conducted congruently.

6.3. Population of the study

6.3.1. Source population of the study

The source population for this study was all nurses working in tertiary hospitals in Addis Ababa.

6.3.2. Study population of the study

The study population for this study was all randomly selected nurses working in tertiary hospitals in Addis Ababa

6.4. Eligible criteria

6.4.1. Inclusion criteria

All nurses currently working in tertiary hospitals in Addis Ababa but for qualitative study only nurses who have greater than two years work experience were included purposely.

6.4.2. Exclusion criteria

Nurses who were seriously ill during data collection period were excluded from the study.

6.5. Sample size determination

Number of participants for this particular study was calculated using formula for a single population proportion by considering the following assumptions

a) The level of confidence of the study 95%,

b) Margin of error is 5%

c) Taking the proportion of nurses' cultural competence 50% to maximize the sample size since there are no studies showing cultural competences of nurse in the Ethiopia.

Accordingly, by using the following single population formula of the sample size:

$$\text{n o} = \frac{(\text{Z}\,\alpha/2)2 * \text{P} * (1 - \text{P})}{\text{d2}} \text{n o} = \frac{((1.96)2\,) * 0.5 * (0.5)}{(0.05)2}$$

n i = 384

Since the total number of nurses in the tertiary hospital is 2069 (which is less than 10000), correction formula is used and the minimum sample size required become

$\text{nf} = \frac{\text{ni}}{1+\frac{\text{ni}}{\text{N}}}$ $\text{nf} = \frac{384}{1+\frac{384}{2069}}$

nf = 320

Where ni is calculated sample size

nf= exact sample size

N = sample population

Considering 10% non-response rate, the final sample size was increased to 352

n =352

For qualitative study 8 participants were taken based on saturation of required data.

6.6. Sampling procedure

For selecting study participant systematic random sampling technique was used. First, total sample size (352) was allocated to each tertiary hospital; namely: TASH, SPHMMC and TSCH proportional to the number of nurses in each hospital. Then, an Individual nurse in each of the hospitals was selected by systematic random sampling technique every 6^{th}interval by identifying an initial starting nurse by using a lottery method. The list of nurses in each hospital was obtained from the hospitals' matron nurse and human resource management office. Departments' or units' of selected nurses and the list of nurses on maternal leave, sick leave and annual leave was obtained from matron nurse.

Purposive sampling technique was used to select participants for qualitative study and included matron nurse, nurse supervisor and head nurses/nurse coordinator and staff nurse.

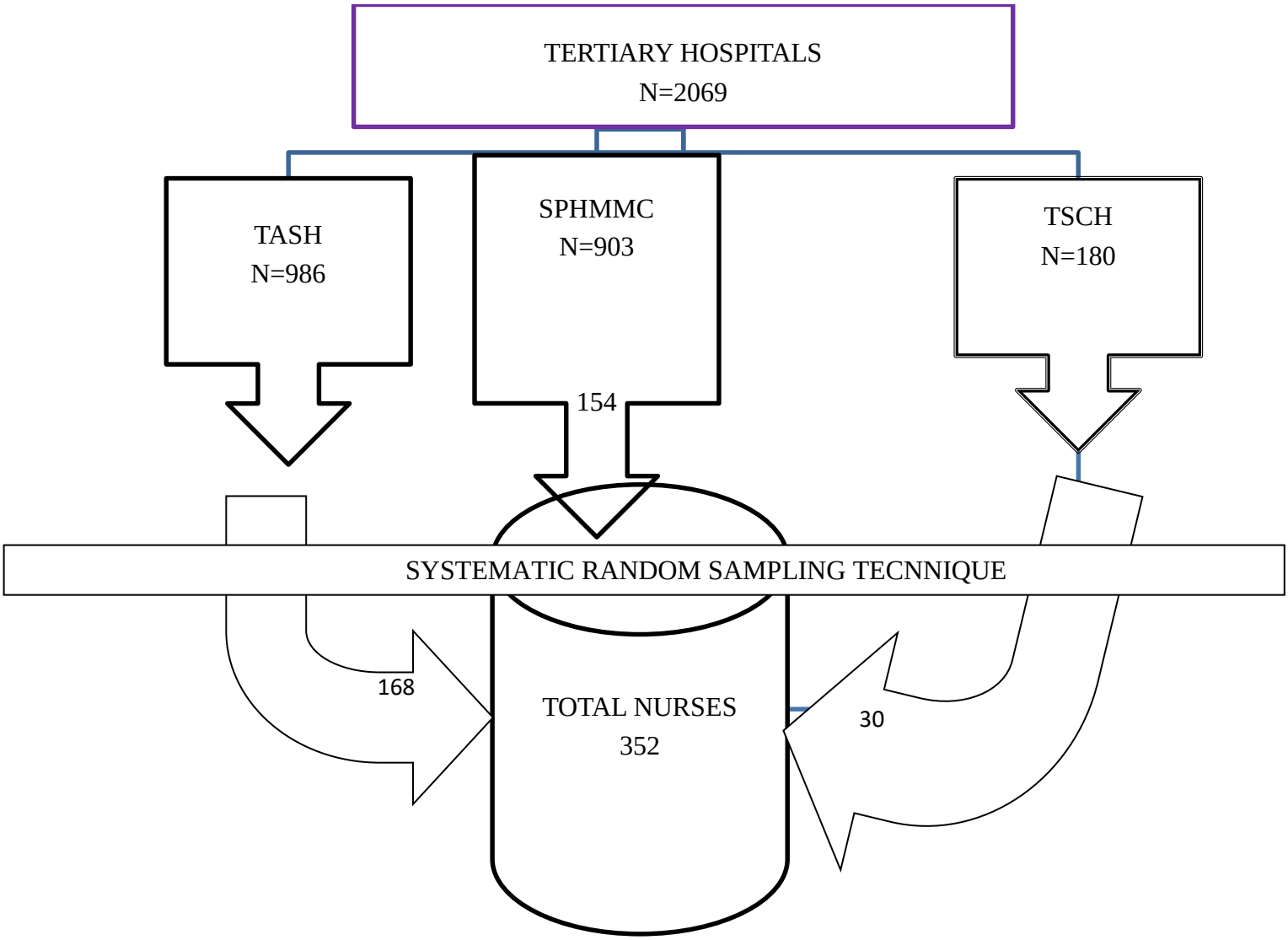

Figure 2: Schematic presentation of sampling procedure

6.7. Definition of Terms

Culture-The learned, shared, and transmitted values, beliefs, norms, and life ways of a particular culture that guides thinking, decisions, and action modes (1)

Cultural awareness- is process of in-depth Self-examination of one's own cultural background, values, stereotypes, biases and practices and recognizing their impact when interacting with people from different culture (4, 18, 74).

Cultural knowledge-is process of seeking and obtaining knowledge about similarities and differences of other cultures and the understanding of the effects of this knowledge on one's practices and values (3, 10).

Cultural sensitivity-is a process in which nurses view their clients as partners in during appropriate care, and treat their patients as unique individuals with unique needs (4, 10).

Cultural skill- is Ability to collect relevant cultural data as well as accurately performing a culturally based physical assessment and deciding patients' immediate problem (18).

Culturally congruent nursing care- is nursing care which is appropriately and meaning fully fit the cultural values, beliefs and life ways of clients for their health or wellbeing, to prevent illness, disability and death (75).

Trans-cultural nursing- is a humanistic and scientific area of formal study and practice in nursing which is focused on differences and similarities among cultures with respect to human care, health, and illness to provide culturally congruent nursing care to people of diverse cultures (76).

Ethnocentrism-a universal tendency to believe that one's own culture and worldview are superior to another's culture (77).

6.8. Operational definition

Patients from different Ethnic and cultural backgrounds- patients who grew up in Ethiopia but have different ethnic backgrounds (Ahmara, Gurage, Oromo, Gumuz and etc) or the same ethnic background but come from other geographic areas and different cultural backgrounds based on religion, dialect language, and other variables within subcultures of Ethiopia and foreign /residents patients who grew up and came from another country.

Ability to speak only Amharic language- a nurse who cannot speaks any Ethiopian language (not include foreign language like English) other than Amharic Language

Ability to speak other than Amharic Language - Ability to speak any Ethiopian languages (not include foreign language like English) other than Amharic Language

Level of each subscales-The level of each subscales of cultural competence (cultural awareness, cultural knowledge, cultural sensitivity and cultural skill) was categorized based on mean of each subscales into (39);

- Low level- mean score o-1
- Low to moderate level- mean score >1-2
- moderate level- mean score >2-3
- High level- mean score >3

Level of cultural competence: The level of overall cultural competence was categorized based on mean of cultural competence questionnaire for nurses(CCQN) scale score into (39);

- Low level- mean score o-1
- Low to moderate level- mean score>1-2
- moderate level- mean score >2-3
- High level- mean score >3

6.9. Variables of the study

6.9.1 Dependent variable

The dependent variables of this study was level of cultural competence of nurses

6.9.2. Independent variables

- gender
- Age
- ethnicity
- religion
- education level
- Length of work experience
- Current role
- ability to speak other than Amharic and English language
- language backgrounds
- experience in caring for patients with culturally and ethnically different from own
- frequency of experience in caring for patients with culturally and ethnically different from own
- Experience of work in other than current hospital
- Level of health institutions served in other than current hospital
- Previous cultural nursing care education
- experience in taking training related to cultural nursing care
- availability interpreters service
- type of interpreters used

6.10. Data collection tool and procedure

For this study English version, structured and self-administered cultural competence questionnaire for nurses (CCQN) was used. The questionnaire was designed by principal investigator to measure cultural competence of nurses working in hospitals from extensive literature review and consideration of items from existing scales. This tool was developed based on Papadopoulos, Tilki and Taylor (PTT) model that consist of four constructs of cultural competence: cultural awareness, cultural knowledge, cultural sensitivity and cultural skill.

The questionnaire was content validated by 5 nursing expert from different university in the country. Initially questionnaire consisted of totally 44 items and 11 items for each constructs (cultural awareness, cultural knowledge, cultural sensitivity and cultural skills). Based on expert relevance rating the computed content validity index (CVI) at item level was ranged 0.6 -1.00 and the calculated content validity index (CVI) at scale level using averaging approach was 0.94 indicating excellent content validity. 8 items with CVI less than 0.8 were deleted. Finally CCQN consist of totally 36 items with cultural awareness 7 items, cultural knowledge 10 items, cultural sensitivity 9 items and cultural skills 10 items. Each item uses a five-point Likert scale to measure participant's response: 0 = totally disagree, 1 = 25% agrees, 2 = 50% agrees, 3 = 75% agree, and 4 = 100% agree.

Pretest was conducted on 36 nurses working in Yekatit 12 hospital 2 weeks prior to actual data collection to test internal consistency of the tool and see ambiguity of the word and clarity of the sentence of the items. Internal consistency was tested using reliability scale. The results showed strong reliability for all subscales and overall scale with the range of 0.85-0.96 cronbach's alpha value for subscales and 0.96 cronbach's alpha value for overall scale as show in **table 1** below. Based on participants comments unclear and jargons words were modified.

Table 1: Reliabilities of CCQN scale score and Each Subscale score on pretest (n=36)

Variables	Number of items	Cronbach's alpha
Cultural awareness	7	0.92
Cultural knowledge	10	0.85
Cultural sensitivity	9	0.96
Cultural skill	10	0.9
Total CCQN score	36	0.94

The internal consistency of the four subscales and the overall CCQN were also tested on actual study using reliability scale. The finding indicated that overall CCQN had strong reliability with Cronbach's alpha of 0.92, and the individual subscales ranged from 0.75 for cultural sensitivity to 0.92 for cultural skill **(table 2)**.

Table 2: Reliabilities of CCQN scale score and Each Subscale score of the study (n=343)

Variables	**Number of items**	**Cronbach's alpha**
Cultural awareness	7	0.88
Cultural knowledge	10	0.82
Cultural sensitivity	9	0.75
Cultural skill	10	0.92
Total QCCN score	36	0.92

In the original tool, three of the items (numbers 7, 11and 26) were inverted or negative statements, but these items were recoded for data analysis to ensure all scoring in the same direction for the current study. The levels of cultural competence were calculated for the different constructs and the overall tool. The possible mean score ranges from zero to 4 which indicates level of cultural competence of nurses: low, low to moderate, moderate and high level. It would take 20-25 minutes to complete questionnaire. A Socio demo geographic characteristics question was developed by principal investigator from literature. The interview guide was developed by the principal investigator based on the extensive literature review.

Quantitative data was collected by 6 trained BSc nurses and principal investigator supervised them during data collection. Face to face in depth interview was conducted in Amharic language by principal investigator using semi structured interview guide for qualitative data collection. First structured open ended question was asked; like share me how much you have considered patient's cultural belief, Value and practice and as well as patients' linguistic preference in your day to day nursing care?, what are the barriers you have faced when you provide nursing care for patient culturally and linguistically different from yours?. In order to obtain more detailed in information, additional probing questions was used. The length of interviews ranges from 25-30minutes.

6.11. Data quality control

The quality of data was ensured through training of data collectors, regular supervision, and immediate feedback and reviewing each of completed questionnaires daily by the principal investigator. Pretest of the questionnaire was conducted on 36 nurses working in Yekatet 12 hospital two weeks prior to actual data collection.. For eligible participant who would not found at the day of data collection, data collectors were revisited the hospitals three times at different time intervals. The principal investigators also coordinated and supervised overall data collection process.

The principal investigator was checked each part of the questionnaire for missed values before data entry. The incomplete data was discarded. Epi-data manager version 4.2.2 was used to cleaned up and prevent data entry errors. Principal investigator was conducted interviews to ensure interview consistency.

6.12. Data processing and analysis

Data was coded and entered using Epi-data manager version 4.2.2 and exported to SPSS Version 20.0. Socio-demographic characteristics, cultural experience and cultural competence level of participants were analyzed using descriptive statistics and described in the form of texts and tables and graph. Independent t-test and one way analysis of variance (ANOVA) were used to examine mean difference between groups of independent variables.

Prior to conduct independent t-test and one way analysis of variance (ANOVA), data were tested for assumption normality and homogeneity. The assumption normally distributed score of cultural competency among groups of independent variables was tested by creating histogram and values of skewness and kurtosis, and confirmed by Kolmogorov-Smirnov tests at an alpha level of .05. The results indicated that there were no non-normally distributed variables except cultural competence score across groups of work experience and current role of participants. As the result of this, Kruskal-Wallis test was used to examine the mean score differences between groups of these two variables.

The assumption of homogeneity of variance among groups of independent variables was examined by Levene's test of equality of variance. The results indicated that there were no significantly different variances among groups, thus assumption of homogeneity of variance for all variables was tenable. An alpha level of 0.05 was used to determine statistical significance. previous cultural care training was not included in the analysis because there was no reported previous cultural care training. Furthermore, frequency statistics for characteristics of participants showed that there was only one participant grouped in matron nurse. For the purpose of ANOVA this participant was deleted and added to supervisor group. A total of six, eight and two variables were included in the independent t-test, ANOVA and Kruskal-Wallis test analysis respectively. The statistical significance was set at $p < .05$.

Qualitative data which obtained from an in-depth face to face interview was transcribed by arranging the record according to forwarded questions and translated to English version. Then thematic data analysis, as a flexible and use full method to provide a rich and detailed account of qualitative data was used. The findings of quantitative study were integrated with qualitative finding using triangulation approach.

6.13. Ethical consideration

The study was conducted after getting ethical approval and clearance from institutional review board (IRB) of school of Nursing and Midwifery, College of Health Sciences, Addis Ababa University. Supportive letter was taken from Addis Ababa University to each tertiary hospital and permission was obtained from each tertiary hospital.

Informed consent was obtained from the study participants. Study participants were provided with information about the objectives of the study and they were right to respond fully or partially to the questionnaire. All the information given by the respondents was used for research purposes only and confidentiality and privacy was maintained by omitting the names of participants during data collection procedure. The study did not cost additional expenses on the study participants.

For qualitative study recording the interviews was takes place after permission from participants was taken. The privacy and identity of participants was protected and participants' confidentiality also assured through omitting participants' names informed consent form. In addition, the phone number and email address of the principal investigator was provided that could help participants to ask questions related with ambiguous or unclear aspects of the study, prior to agreeing to participate. The hard copy of data, recorded data and all the interviewers' notes were kept in private place in order to accessed by only principal investigator.

7. RESULTS

7.1. Participant's characteristics

Out of the total participants involved, 343 participants returned the questionnaire making response rate 97.4%. More than half 182 (53.1%) of participants were male. The mean age of the participants was 28.51(SD = 4.22) year which accounts 235 (86.5%) of them were in the range of 22-29 years. Amhara 155 (45.2%) by ethnicity and Orthodox 209 (60.9%) by religion dominates study participant. Majority 306 (89.2%) of the study participants were Bachelor's degree holders in nursing. On average, participants reported that they had less than four years 3.8 (SD = 2.9) of work experience in their current hospital in which 136(39.55%) of them were in the range of 1-3.9 years and most 316 (92.1%) of them were staff nurses.

Regarding language proficiency, more than half 177 (51.6%) of participants cannot speak any language other than Amharic and English while Afan Oromo 76 (45.8%), Tigregna 39 (23.5%) and other languages 23 (13.9%) were the first three reported spoken languages other than Amharic and English by participants. Almost three-quarters 250 (72.9%) of participants reported that they had no experience in learning concepts of cultural care nursing in their previous nursing education programs. Conversely, more than half 187 (54.5%) of them had an experience in caring for patients from culturally and ethnically diverse groups with 117 (62.9%) of them had an opportunity to care for these patients almost every day.

Regarding work experience in other than their current hospital, only 121 (35.3%) of participants had work experience in other than their current hospital with 53(43.8%) of them were worked in primary hospital or health center. Even though participants were asked whether they had cultural care related training, no reported prior cultural care related training among participants. Concerning interpreter services, only 144(42%) of participants were used interpreters for the languages they are not fluent in which nearly half 69 (48%) of them were used only family of patients as interpreter. Few participants 4(2.8%) were also reported another interpreter used such as nursing student, attendants of other patients and any individual available nearby. The finding of this study also revealed that trained or medical interpreter did not used for any language they were not fluent by participants (**Table 3**).

Table 3: Characteristics of nurses working in tertiary hospitals in Addis Ababa, Ethiopia, 2018 (n=343)

Variables	Categories	Frequency	Percent
Gender (n= 343)	Male	182	53.1
	female	161	46.9
Age (n= 343)	22-29	235	86.5
Range=22-52; M=28.51, SD=4.22	30-39	100	29.2
	>=40	8	2.3
Ethnicity (n= 343)	Amhara	155	45.2
	Oromo	81	23.6
	Tigray	53	15.5
	Others*	54	15.7
Religion (n= 343)	Orthodox	209	60.9
	Muslim	50	14.6
	Protestant	69	20.1
	Others**	15	4.4
Education level (n= 343)	Diploma nurse	25	7.3
	Bachelor's degree nurse	306	89.2
	Master's degree nurse	12	3.5
work experience at current hospital in years	<1 year	60	17.5
(n= 343)	1-3.9	136	39.7
Range=1/3-14; M=3.8, SD=2.9	4-8	116	33.8
	>8 years	31	9
Current role (n= 343)	Matron nurse	1	3
	Supervisor nurse	10	2.9
	Head nurse	16	4.7
	Staff nurse	316	92.1
Ability to speak any language(s) other than	Yes	166	48.4
Amharic and English (n= 343)	No	177	51.6
Spoken language other than Amharic and	Afan oromo	76	45.8
English(n =166)	Tigrigna	39	23.5
	Guragegna	13	7.8
	Multilanguage	15	9.0
	Others***	23	13.9
Ever learned about cultural care nursing (	Yes	93	27.1
n= 343)	No	250	72.9
Experience with caring for patients	Yes	187	54.5
	No	156	45.5
Frequency of caring for	Almost every day	117	62.6
Diverse patients (n =187)	1 or 2 times a week	39	20.9
	1 or 2 times a month	10	5.3
	Several times a year	21	11.2

Continued table 3

Work experience in any health institution other than current hospital (n= 343)	Yes	121	35.3
	No	222	64.7
Level of health institution(n =121)	Tertiary hospital	10	8.2
	General hospital	36	29.8
	Primary hospital/HC	53	43.8
	Multiple level	22	18.2
Training related to cultural care nursing (n= 343)	Yes	0	0
	No	343	100
Availability of interpreter service (n= 343)	Yes	144	42
	No	199	58
Types of interpreters (n =144)	Family	69	48.0
	Colleagues	24	16.6
	Multiple interpreters	47	32.6
	others****	4	2.8

Note: *: Sidama, Welayt, somale, Kembata, Hadia

**: Wakefata and Catholic

***: Af-somale, Sidamegna, Welaytegna, Kembatenga and Hadisha, Ge'ez and Arabic

****: Nursing student, attendants of other patients and any individual available nearby

7.2. Cultural competence of participants

The overall cultural competence of participants was 1.94 (SD = 0.65) out of a total possible score range from 0 to 4 which indicates low to moderate level of cultural competency. Similarly, level of cultural competence of participants for cultural knowledge (M=1.91, SD=0.76) and cultural skill (M=1.62, SD=0.98) subscales was low to moderate. However, level of cultural competence of participants for cultural awareness and sensitivity subscales was moderate with (M=2.00, SD= 0.79) and (M=2.54, SD= 0.69) respectively. The lowest mean score was observed for cultural skill scale (M=1.62, SD=0.98) and highest score observed for cultural sensitivity scale (M=2.54, SD= 0.69) (**Table 4**).

Table 4: Descriptive statistics for Each Subscale and the total scores of the CCQN scale (n =343)

Variables	**Possible range**	**Minimum**	**Maximum**	**Mean(SD)**	**Level of cultural competence**
Cultural awareness	0-4	0.00	3.71	2.00(0.79)	Moderate
Cultural knowledge	0-4	0.60	4.00	1.91(0.76)	Low to moderate
Cultural sensitivity	0-4	0.44	4.00	2.54(0.69)	Moderate
Cultural skill	0-4	0.00	3.90	1.62(0.98)	Low to moderate
Total CCQN scale score	0-4	0.36	3.64	1.94(0.65)	Low to moderate

The finding of this study also revealed that almost half 171 (49.9%) of participants were in the low to moderately competent while only 21(6.1%) of participants were highly competent on overall CCQN scale score. The highest percentages of participants were in low to moderate for cultural awareness and knowledge with 146 (42.6%) and 132 (38.5%) respectively whereas more than half 187 (54.5%) of participants were in moderate level for cultural sensitivity and 123 (35.9%) of participants were in low level for cultural skill (**figure 2**).

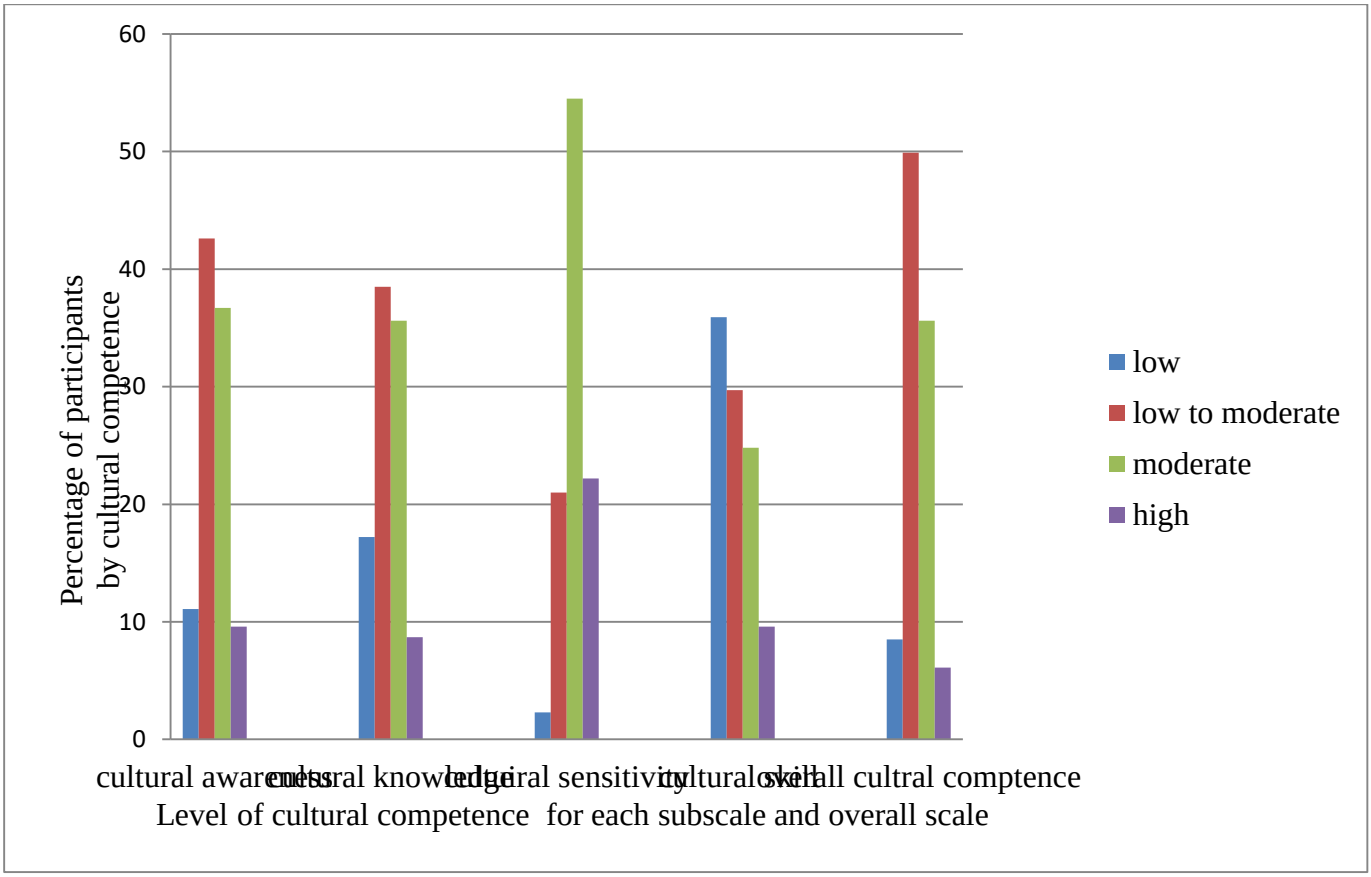

Figure 3: Percentage of participants by Level of cultural competence of nurses working in tertiary hospitals in Addis Ababa, Ethiopia, 2018 (N=343)

7. 3. Factors associated with cultural competence of participants

Independent t-test and one way analysis of variance (ANOVA) were used to examine mean difference between groups of independent variables. Independent t-test is parametric test that used to compare mean of two groups and one way analysis of variance (ANOVA) is also parametric that used to compare mean of three or more groups (78). Therefore independent variables with two groups were analyzed by independent t test and variables with three or more groups were analyzed by one way ANOVA. Non-parametric testing called Kruskal-Wallis test of K-independent samples was used for variables with assumption of normality did not tenable.

Independent t- test found that there was a statistically significant difference between mean scores of participants who spoke beside Amharic and English languages and who could not spoke beside Amharic and English languages; t (341) = 3.53, $p < .001$, d = .36. The effect size for this analysis (d = .36) was found to exceed Cohen's d convection for small effect (d = .2). These results indicate that participants who spoke language beside Amharic and English had the higher mean score (M=2.06, SD=0.67) than who spoke only Amharic and English languages (M= 1.82, SD=0.61). Significant difference was also found between participants who have ever learned and who have not ever learned about cultural care nursing in their any of nursing program ; t (341) = 8.13, p<.001, d = .84. The effect size for this analysis (d = .84) was found to exceed Cohen's d convection for large effect (d = .8). These results illustrate that participants who have ever learned about cultural care nursing were scored more mean (M=2.37, SD=0.66) than and who have not ever learned (M= 1.77, SD=0.58).

The results of independent t- test also showed that a statistically significant difference was found based on experience of caring for culturally and ethically different patients from one's own; t (341) = 8.40, p<.001, d = .85. Computed Cohen's d using the value of t- test statistics revealed large effect based on Cohen's standard. These results suggest that participant who had an experience of caring for culturally and ethically different patients from their own was more culturally competence (M=2.18, SD=0.60) than those who had no an experience of such caring (M =1.64, SD=0.59). Mean score of participants was also statistically significant different based on their work experience in other health institution other than their current hospital; t (341) = 8.30, p<.001, d = .82. The magnitude of difference was large (d = .82).

Thus, it is inferred that participants who had work experience in other health institution other than their current hospital scored higher mean (M = 2.30, SD=0.58) than who had no work experience in other than their current hospital (M= 1.74, SD=0.60).

The finding also revealed that there was statically significant mean score difference between participants who used any type of interpreters for the language they are not fluent (M=2.25, SD=0.61) and who did not used (M= 1.71, SD=0.58); *t* (341) = 8.28, p<.001, d = .83. The magnitude of difference in mean was large (d = .83). This implies that cultural competence level of participants would increase with using interpreters for the language they were not fluent. However, no significant difference was noted between mean score of male (M=1.93, SD=0.67) and female (M= 1.94, SD=0.64); *t* (341) =-.05, p =.65, d = -.004. This signifies that being male or female does not have an impact on cultural competence level of participants (**Table 5**).

Table 5: Independent sample t- test: Factors associated cultural competence of nurses working in tertiary hospital In Addis Ababa, Addis Ababa, Ethiopia, 2018(n=343)

Variables	Categories	N	M (SD)	*t*	df	p	d	95% CI
Gender	Male	182	1.93(0.67)	-	-	-	-	-
	Female	161	1.94(0.64)	-	-	-	-	-
	Total	343	1.94 (0.65)	-0.05	341	.65	-0.004	-0.14-0.13
Languages spoken beside Amharic and English								
	Yes	166	2.06(0.67)	-	-	-	-	-
	no	177	1.82(0.61)	-	-	-	-	-
	Total	343	1.94 (0.65)	3.53	341	<.001	0.36	0.10-0.38
Previous cultural related education								
	Yes	93	2.37(0.66)	-	-	-	-	-
	No	250	1.77(0.58)	-	-	-	-	-
	Total	343	1.94 (0.65)	8.13	341	<.001	0.84	0.45-0.73
Experience of caring for patients culturally and ethically different from one's own								
	Yes	187	2.18(0.60)	-	-	-	-	-
	No	156	1.64(0.59)	-	-	-		-
	Total	343	1.94 (0.65)	8.40	341	<.001	0.85	0.41-0.67
Work experience besides current hospital								
	Yes	121	2.30(0.58)	-	-	-	-	-
	No	222	1.749(0.60)	-	-	-	-	-
	Total	343	1.94 (0.65)	8.30	341	<.001	0.82	0.43-0.69
Interpreter service	Yes	144	2.25(0.619)	-	-	-	-	-
	No	199	1.71(0.586)	-	-	-	-	-
	Total	343	1.94 (0.65)	8.28	341	<.00l	0.83	0.41-0.67

One way analysis of variance (AVOVA) revealed that there were no significant difference in mean scores among groups by ethnicity F (3, 342) = 0.77, p =.51, η2 = .006, language background F (4, 161) = 1.46, p = .21, η2 = .03, frequency of caring for patients culturally and ethically different from one's own F (3, 183) = 2.26, p = .08, η2 = .03, level of health institution served F (3, 117) = 0.13, p = .94, η2 = .003 and type of interpreter used F (2, 137) = 0.06, p = .97, η2 = <.001. However, there was a statistically significant difference in mean scores among three age groups F (2, 340) = 7.81, p < .001, η2 = .04. Despite reaching statistical significance, effect size calculated using eta squared showed that the actual difference in mean scores between groups was small (η2 = .04). Post-hoc comparisons using the Tukey's Honestly Significant Difference (HSD) test indicated that the mean score for greater than 40 years group (M =2.67, SD = 0.35) was significantly different from 22-29 years group (M =1.86, SD = 0.63) and 30-39 years group (M = 2.03, SD = 0.67). But, there was no statistically significant difference in mean scores between 22-29 years group and 30-39 years group.

One way analysis of variance results also revealed that there was a statistical significance in mean score across the different religion of participants with F (2, 340) = 3.04, p = .029, η2 = .03. Effect size calculated using eta squared showed that the actual difference in mean scores between groups was quite small (η2 = .03).Furthermore, follow-up test was conducted to evaluate pair-wise difference among the means of participants. The results showed that statistically significant difference was found between Orthodox (M=2.00, SD=0.60) and other religions follower (M=1.66, SD= 0.91) including Waqefata and Catholics. It implied by inspection of mean that orthodox followers were more culturally competent than other religions follower (Waqefata and Catholics). The other groups by religion did not differ significantly from one another.

ANOVA was performed to compare mean difference by education level of participants. The finding showed that there was mean score difference by education level of participants F (2, 340) = 6.10, p =.002, η2 = .04. However, effect size calculated using eta squared was .04 indicating small effect. A post hoc comparison to evaluation pair-wise differences among group means was conducted with the use of Tukey HSD test. The test results revealed that mean score for masters participants (M =2.43, SD = 0.76) was significantly different from mean score of diploma nurses (M =1.64, SD = 0.68) and mean score of bachelor's degree nurses (M =1.94, SD = 0.63).

This result indicates that master's degree nurses were more culturally competent than others. But, there was no statistically significant difference in mean scores between diploma nurses (M =1.64, SD = 0.68) and mean score of bachelor's degree nurses (M =1.94, SD = 0.63) (**Table 6**).

Table 6: Analysis of variance (ANOVA): Factors associated cultural competence of nurses working in tertiary hospital In Addis Ababa, Addis Ababa, Ethiopia, 2018 (n=343)

Variables	**N**	**M(SD)**	**Groups**	**SS**	**df**	**MS**	**F**	**p**	η^2
Age									
22-29	235	1.86(0.63)	Between groups	6.48	2	3.24	7.80	<.001	0.04
30-39	100	2.03(0.67)	Within groups	141.33	342	0.41			
>=40	8	2.67(0.35)							
Ethnicity									
Ahmara	155	1.93(0.62)	Between groups	1.00	3	0.33	0.77	.51	0.006
Oromo	81	2.01(0.71)							
Tigray	53	1.94(0.68)	Within groups	146.82	342	0.43			
Others	54	1.84(0.66)							
Religion									
Orthodox	209	2.00(0.61)	Between groups	3.88	3	1.29	3.04	0.03	0.03
Muslim	50	1.75(0.64)							
Protestant	69	1.90(0.71)	Within groups	143.93	342				
Others	15	1.660(0.91)							
Education level									
Diploma	25	1.64(0.68)	Between groups	5.12	2	2.56	6.10	.002	0.04
Bachelor's	306	1.94(0.64)	Within groups	142.82	342	0.42			
Masters	12	2.43(0.76)							

Continued table 6

Spoken language other than Amharic and English									
Afan oromo	76	2.16(0.71)	Between groups	2.67	4	0.67	1.46	0.21	0.03
Tigrigna	39	2.07(0.56)							
Guragegna	13	1.86(0.64)							
Multilanguage	15	1.75(0.64)	Within groups	73.54	161	0.46			
Others	23	2.06(0.75)							
Frequency of caring for patients culturally and ethically different from one's own									
Almost every day	117	2.14(0.61)	Between groups	2.42	3	0.80	2.26	.08	0.03
1 or 2/wk	39	2.11(0.62)							
1 or 2/mon	10	2.36(0.56)	Within groups	65.24	183	0.35			
Several times per year	21	2.46(0.48)							
Level of health institution									
Tertiary hospital	10	2.20(0.72)	Between groups	0.14	3	0.05	0.13	0.94	0.003
General hospital	36	2.32(0.56)							
Primary hosp/HC	53	2.30(0.59)	Within groups	41.5	117	0.35			
Multiple level	22	2.32(0.58)							
Types of interpreters									
Family	69	2.23(0.68)	Between groups	0.05	2	0.03	0.06	0.97	<.001
Colleagues	24	2.23(0.55)							
Multiple interpreter	47	2.27(0.59)	Within groups	55.8	137	0.40			

Abbreviations: M = Mean, SD = Standard deviation, SS = Sum of square, df = Degree of freedom, MS = Mean of square

The Kruskal-Wallis test indicated that there was statistical significance difference in mean score across the work experience groups $X^2(3) = 24.64$, $p < 0.001$, $\eta^2_H = 0.06$. Inspection of the mean rank, which describes the direction of difference, indicated that the participants who had greater than 8 years work experience has the highest mean score (mean rank=248.97), while those who had less than one work experience has the lowest mean score (mean rank=142.20) when compare with others, as shown in Table 8 below. Calculated eta squared using Kruskal-Wallis test statistics indicated that the variance in mean score among groups was medium ($\eta^2_H = 0.06$). Further, Post hoc test was conducted using Mann-Whitney test to examine statistically significance difference among the groups by work experience. The finding revealed that there was statistically significant difference between participants who had work experience greater than 8 years and who had less than 1 year ($p = .001$), 1-3.9 years ($p = .001$) and 4-8 years ($p = .001$) work experiences. There was also significant mean score difference between nurses who had less than 1 year and who had work experience between 1 and 3.9 years ($p = 0.04$). However, there was no evidence of mean score difference between the others groups. This implies that work experience facilitate cultural competence of nurses.

Kruskal-Wallis test also illustrated that there was statistically significant difference in cultural competence mean scores across the groups by current roles of participants $X^2(3) = 15.4$, $p = 0.001$, $\eta^2_H = 0.03$ with mean rank score of 213.6 for supervisor, 259.22 for head nurse and 166.1 for other staff nurses. Calculated eta squared using Kruskal-Wallis test statistics indicated that the variance in mean score among groups was small ($\eta^2_H = 0.03$). Post hoc test using Mann-Whitney test showed that significant difference was found between head nurse and staff nurses ($p < .001$). However, the other groups did not differ significantly from one another (**table7**).

Table 7: Kruskal-Wallis test: Factors associated cultural competence of nurses working in tertiary hospital In Addis Ababa, Addis Ababa, Ethiopia, 2018 (n=343)

Variables	**Categories**	**N**	**Mean rank**	X^2	**df**	**p**	η^2_H
Work experience	<1 year	60	142.2	24.6	3	<.001	0.06
	1-3.9	136	173.3				
	4-8	116	165.4				
	>8	31	248.9				
Current role	Supervisor	11	213.6	15.4	2	<.001	0.03
	Head nurse	16	259.2				
	Staff nurse	316	166.1				

8. QUALITATIVE FINDING

The participants in this study were selected by the purposive sampling method. In order to create variety in the sample, the participants from three hospitals and different in their current role were evolved in the study. Participants were selected based on inclusion criteria of having greater than four years work experiences. All interviews were performed by principal investigators and recorded on voice recorder for volunteer participants. For two non volunteer participants everything of their suggestion was written down. The face to face in-depth semi-structured interviews for 20-30 minute were held for all participants. The key questions were: 'Do you believe that you are providing cultural competent nursing care?', 'What are barriers you faced when you provide cultural competent nursing care for diverse patients?' and then follow up questions or probing questions were continued based on the participants' responses. The sampling was continued until saturation of information has obtained. By the 8^{th} interview, data saturation was reached.

After extensive thematic data analysis was done on all interviews and researcher formulated four themes. These themes were the issues that were recurred constantly in all of the interviews which include cultural competence, linguistic competence, cultural competence/ trans-cultural nursing education and training and barriers to cultural competence.

Demographic data was collected and aggregated for the eight participants who ranged in age from 28-48. Five male and three female participants were involved in the study. Five of them were BSc nurse, one of them was MSc nurse and the other two participants were MSc students with minimum of 4 years and maximum of 16 years work experience. Regarding their role matron, head nurses, supervisor nurses and staff nurses were included in the study (**Table 8)**.

Table 8: Socio- demographic characteristics of nurses working in tertiary hospitals in Addis Ababa, Ethiopia, 2018 (n=8)

Participants' code	gender	Age	Level of education	Work experience	Current roles
I1	F	48	BSc	16	head
I2	F	42	BSc	14	head
I3	M	32	BSc	8	supervisor
I4	M	30	BSc	5	staff
I5	M	28	BSc	4	staff
I6	M	31	MSc student	5	staff
I7	M	32	MSc student	5	Matron
I8	F	36	MSc	10	Head

THEME ONE: CULTURAL COMPETENCE

The main objective of this study was to assess cultural competence level of nursing working in tertiary hospital in Addis Ababa. For this reason participants were asked for their cultural competence during their provision of nursing care for culturally and ethically diverse patients. The finding revealed that, even though most of participants believe in its importance they did not consider patient's cultural beliefs, behavior and preference in nursing care. Most participants believed in treating all patients equally. They felt that treating according to their culture is rise the issue of injustice and inequality. They were also reported that patients felt isolated and experienced discrimination if they were treated in different ways. One participant suggested that

"Unless we admit in the same ward, provide the same diet, hospital attire and etc. they may feel unfairly and unequally treated. Therefore in my view just respecting their culture but treating in the same way because they may feel isolation and discrimination from others".

Interestingly, participants indicated that they were able to respect the clients' unique needs in abstaining themselves from involvement in their cultural and religious practice. Patients were

practiced their cultural and religious practice individually what they want freely in the ward but not in the group. They suggested that they did not encouraged as well as disallowed to practice their cultural and religious belief, value and practice. One of the participants mentioned that:

"I respect every cultural and religious practice of patients whatever it is. I have not ever disallowed and also encouraged their cultural and religious practice. As we respect each other in outside health care setting we should have respect each other in hospitals. This is our culture. Muslim has practicing his religious practice, Christian's pastors also come and pray for patients. But, for the sake of other patients sometimes I do not allow to pray in group that may disturb patients in the ward. Unfortunately, I did not face a patient who used traditional healer in wards. This is because; I think our society fear using traditional medicine in front of health care providers".

This is supported by another participant stating that:

"I respect cultural and religious practice of patients. For example, Muslim religion followers do not need post mortem care. In such case, I respect their preference. Female Muslims also do not need presence of males in examination room. I keep their privacy or ordering males to leave the room during examination. There are patients who want to go to their religious practice site like church and holy water before they finish their medication and told to be discharged. In such case, also I respect their need; I have not ever disallowed".

Most of the participants in the interviews mentioned that it was their first time to hear the concept of cultural competence. Most participants started their interview with appreciating the topic and mentioned the importance of incorporating cultural issue in nursing care. But they did not consider it as nursing skill. As the result of this, participants were imposed their professional knowledge regarding health and illness and imposed their routine practices on to patients rather than respecting patients perspectives and decision. One participant stated that:

"Frankly speaking, I have never heard about the issue of cultural competence rather than clinical competence. In fact there are questions in nursing care plan (NCP) that asks about

cultural practice, religious practice and health and illness belief of patients. But, most of the time I did not take it in to consideration because my focus is on patients disease".

This is supported by another participant mentioning that:

"There are questions related to culture in assessment of client in nursing care plan (NCP) but I do not consider it in my nursing planning. Even, most of the time, I do not conduct cultural assessment; I skip because my attention is always on nursing skill not on cultural aspects".

It is confirmed that in becoming culturally competent, it is important to gain knowledge through cultural assessment. Therefore, participants were asked whether they assess or not cultural related factors. The results revealed that majority of participants did not agree with importance of cultural assessment because of believing that it increases the risk of racism and discrimination. Participants reported that patients feel discomfort when they are asked about cultural related issues such as ethnicity. One participant stated that:

"When I ask their cultural and religious practice, it did not seem to them important. Some patients respond by stating why they are asked for that and others do not tell you the truth. There are patients who tell you the place or city where they come from instead of their ethnicity when they were asked to disclose their real ethnicity. I think, this may be due to fear of racism and discrimination. In addition, this issue may indirectly develop and encourage the principle Christians for Christians, Muslims for Muslims and Afan Oromo speakers for Afan Oromo speakers, Amharic speakers for Amharic speakers'. Because of these reason, most of the time, I do not assess cultural aspects".

THEME TWO: CULTURAL COMPETENCE EDUCATION AND TRAINING

Majority of participants reported that they had not taken any training or education about cultural congruent nursing care in their previous nursing education. Only two participants reported previous trans-cultural nursing education while none of them reported cultural congruent nursing care training. Interestingly, their need to learn cultural care nursing was high. But they didn't

have an opportunity as well as they did not try to learn it because of their low awareness, poor attention and lack of reference. One participant mentioned:

"Trans-cultural nursing and cultural competence´ are new concept for me. I did not learnt and read about it before. But if I had opportunities to learn it in future I am lucky because it is very important especially for us in order to provide effective care for diverse patients we are facing every day. It may aware and acknowledge us to pay attention to this issue".

Another participant stated:

"I remember I had taken Trans-cultural nursing in nursing theory. But after that I have not taken it into consideration in my nursing practice. I have not remembered since then because I did not pay attention on it because there is no such trend of practice in our hospitals. I think this issue is very challenging for nurse in our hospital not only our hospital I can say nurses in our country. The prime reason is that much attention has not being given for it in pre-and in-service trainings of nurses. The other reason is there are no references or books on Ethiopian cultures that would help and guide nurses and also other health care providers to take patients cultural and religious practice in to consideration. . How can nurse from Ahmara consider cultural practice of Oromo patients? How can Christian nurse consider religious practice of Muslim patients? The same for others ethnicities and religions unless nurse has been taught, trained and provided a book or guideline on each cultural and religious belief and practice that can direct nurse".

THEME THREE: LINGUISTIC COMPETENCE

Nursing care should be given for patients in language they understand and they prefer. Contrary to this, the present study revealed that due to different barriers, patients have not been receiving nursing care in language they prefers and they understand. One of the participants stated that:

"Some patients go back to their home without acquiring information due to language difference. This has specially occurring at OPD level. For example, when they are offered with laboratory request there are patients who brings laboratory request back as it is because they did not

understand what they were told to do so. There are patients who did not come back for appointment given for them. Not only this, one day a patient who knows few Amharic was diagnosed with a disease and was given a drug and gone. As he gone, he told his problem and showed the drug to his friend who is health professional and can speak his mother tongue. On other day his friend brings him to OPD and helps us as interpreter. After complete assessment he has had another diagnosis. Most of the time not using interpreter or not using patient language were seen near physician. Generally speaking, there are health workers who do not want to speak patient's language even though they can speak".

THEME FOUR: BARRIERS TO CULTURAL COMPETENCE

4.1. Language barriers

The finding of this study revealed that language barrier was the major obstacle for the participants in providing culturally congruent nursing care. It was the most frequently mentioned barriers by almost all of study participants. Majority of participants felt that they faced difficulty in giving health education, providing necessary information and obtaining consent form during conducting nursing procedure and delivering nursing care to patients who cannot speak Amharic language. The participant explained the situation as:

"I cannot speak language other than Amharic. However, there are many patients who cannot understand Amharic. Because of this, most of the time, I face challenges in giving health education, providing necessary information and obtaining consent form. Even there is a time where I conduct nursing procedure without explaining the procedure and obtaining consent form".

Another participant added that:

"It is obvious that most nurses working in this hospital use Amharic where many patients cannot understand Amharic. Therefore, most nurses have facing difficulty in their day to day nursing care in using patients language and take their culture in to consideration. For example the majority of patients who cannot speak Amharic were Afan Oromo spreaker. However, I'm not fluent speakers of Afan Oromo and I can't explain the procedure and asks question as I need".

Most participants tried to communicate with patients through using short and common language. However, they faced difficulty in understanding their response and what they wanted to say. Participant stated that:

"Most of the time I uses common language in short to ask questions in language I can speak little bit. But, I cannot fully understand what they say and what they wanted to say".

Another participant supports this challenge that:

"I know Afan Oromo little bit and uses it to explain the procedure and ask question for Afan Oromo speaker patients. Their response was in only Afan Oromo; even they not try to speak in Amharic again. However, I do not understand all what they want to say".

4.2. Trained interpreter and translator limitation

Contradictory ideas were found regarding interpreter and translator service. Some respondents seriously recommended necessity of qualified interpreter and translator and the others believed in only family interprets and bilingual colleagues.

"Those patients who come from remote area and planned to stay in hospital for long period of time were usually come alone for financial purpose. Most of the time, for such patients I do not assess everything; I do not ask their feeling and needs due to absence of any type of interpreter. Therefore, it is my pleasure if our hospital takes this issue in to consideration".

Other challenges reported by participants was

"To me, language issue was very challenging. Most of the time, I use family of patients but if they have not attendant I was forced to use any body nearby either other patients or attendants of other patients but they not need to tell them all their problems. To overcome this, if I use my colleagues they do not want to be treated by me again. They order me to call my colleagues. Thus, I think availability of trained interpreter is very important for our hospital. Not only this, there are also patients who bring supportive letters in language I can't understand and ask me a

letter to be written in the language I cannot write. For such cases availability of trained translator is also very important".

In contrast to these, one participant said that:

"Coming with many attendants is becoming a culture for our patients. Even there is patient who comes with more than 10 attendants. Therefore we don't miss one attendant who can speak Amharic from these attendants".

This was also supported by another participant:

"We have many bilingual colleagues who we are using as interpreters. Therefore, I think it doesn't worry us if we are not able to use family of patients as interpreter".

4.3. Lack of knowledge of patients culture

Many participants expressed their thought that the different cultural background of patients from their own made them culturally incompetent. Professional nurses need specific and general knowledge about the major groups of culturally diverse individuals, families, and communities they serve, including specific cultural practices regarding health, illness and beliefs. Most of participants felt that knowledge of culture of patients is very important but due to existence of diverse culture in the country they had insufficient knowledge of different culture of patients. One participant said that,

"To provide culturally appropriate nursing care, nurse must know patients cultural belief, value, practice and needs and must understand real feeling of patients. However, to me it is too difficult to know and understand the culture of patients from more than 80 ethnic groups in the Ethiopia".

2.4. Lack of multicultural nursing work force

Matching nursing work forces with the patient population is one of the strategies of increasing cultural competence of nurses. Thus, nursing work force would be expected to mirrors patients population they serve. However, most of study participants suggested that majority of nurses working in their hospital was from only dominant ethnic groups. This is reasoned out by majority of participants that strategies that could promote diversity within hiring and recruitment nursing work forces to address culturally competent nursing care have not developed. One participant pointed out that:

"I was facing very ethnically diverse patients who come from all regions of Ethiopia. But, I have not ever worked with colleagues who come from the some regions for instance Gambella and Benishangul Gumuz.

Another participant suggested that:

"Our hospital has not being given attention in promoting nursing work force diversity. All nurses have equal chance to join this hospital regardless of their ethnicity and language proficiency. Their focus was on clinical competence in hiring and selection of nurses. But, if you look at hiring and selection of medical students to medical school, priority has being given for those who come from Gambella, Somale and Benishangul Gumuz". Due to this reason we have been facing a challenge during providing nursing care for a patient who comes from these regions.

4.5. Shortage of nursing staff/time constraints

Results of this study showed that majority of participants complained about having insufficient time to spend with patients due to shortage of nursing staff. Shortage of nursing staff could increase work load on the existing nursing work force which results in culturally in appropriate nursing care. One of the participants stated that:

"We spent short time with patients to reduce waiting time. 'For example, due to the time constraints I spent less time on nursing assessment and the explanation on nursing procedure to the patient. Therefore, to me this is one barrier that diverts my attention from assessing and considering cultural aspects".

4.6. Cultural and linguistic stereotypes

Stereotyping is the process of creating pictures of a whole culture, over generalizing all patients belongs to the same cultures as having similar characteristics and categorizing patients accordingly. Some participants felt that all patients have the same cultural beliefs, value and norm. For instance participant said that:

"Even though we have different religion we Ethiopians have the same cultures. If you take our diet we all uses "Enjera" for our everyday meals. If you take our wearing style the same to this. Generally we have shared our cultural belief, value and norm for each other's".

This suggestion was also supported by other study participants. Majority of participants considered that those patients who cannot speak Amharic were Afan Oromo speakers. As the results of this they try to speak in Afan Oromo or find Afan Oromo interpreters for patients who are not fluent speakers. One participant described the challenge he faced during his conducting nursing procedure.

"One day, to catheterize a patient I need to take consent from her who cannot speak Amharic. I thought that she was Afan Oromo speaker and I found Afan Oromo speaker attendant. I told him the purpose of the procedure and all other necessary information. He interpreted all that information and she responded by nodding her head. I seemed as she was volunteer and while I start the procedure she shouted at me. Later, when I ask her language she is not Afan Oromo speaker".

9. DISCUSSION

It is recommended that interpreters must ensure confidentiality, be knowledgeable about healthcare language, and conduct all sessions in an ethical manner (79). In addition to this communication with patients in their own language through the use of qualified interpreters improves patients' understanding of their diseases and treatment processes as well as generating trust in providers (80). However, only 144(42%) of participants were used interpreters for the languages they were not fluent in which none of them used trained interpreters. qualitative study also found two contradictory ideas regarding trained Interpreter service. Some participants seriously recommended necessity of trained interpreter and the others believed in only family interprets and bilingual colleagues.

The researcher concluded that the limited availability of trained interpreter services was compounded difficulties of providing cultural congruent nursing care. Because family members

and others else should be used only as a last option when qualified interpreters and translators are not available due to potential risks of privacy issues and bias in interpretation. Thus, provision of regularly available trained interpreters/translators as well as language training for nurses is therefore an important component in improving cultural competence of nurses.

In contrast to other several studies in throughout the globe, the finding of this study showed that there were few participants who had ever learned cultural care nursing and no participants who reported prior cultural care nursing training (33, 34, 43). This is also supported by qualitative finding that trans-cultural nursing is a new concept for majority of participants. The possible explanation for this could be inadequately integrated cultural nursing care in nursing education curriculum in the country and attention has not given to cultural competence in the hospitals.

The finding of present study indicated that overall cultural competence of participants was low to moderate. The finding of qualitative study also supported this finding that nursing care has less focused on cultural aspects of patients and they focused more on biological factors and patients' disease. These finding were consistent with many recent studies conducted in Taiwan, Thailand, South Africa and Israel in which small percentage of nurses were involved in culturally appropriate nursing care (25, 26, 37,39). Similarly, qualitative finding of study done in Ethiopia was also congruent with this finding in which health care service at Jimma University specialized hospital was less in touch with cultural, linguistic and religious background of patients (46).

In contrast to present finding the cultural competence level of nurse in the Italia and Iran was moderate (33, 42), the obstetric and neonatal nurses practicing in the United States was moderately high (34) and expatriate nurse in Saudi Arabia was high (43) in which they had better cultural competence than the present finding. This could be due to limited experience of learning cultural competences and culturally competence training among participants. This has also an implication for providing adequate cultural competence education for nursing student and designing guideline and standards of cultural competence that could help and guide nurses in providing culturally congruent nursing care.

Campinha-Bacote indicated that knowledge and skill subscale are important stage of cultural competence to becoming a culturally competent (18). However, the present finding revealed that participants were scored lower mean on cultural knowledge and skill and slightly higher on

cultural awareness and sensitivity. This finding was similar with the finding of study conducted in Taiwan and Japan that showed mean score of cultural knowledge and skills were lower than that of cultural awareness and sensitivity (37, 38). This reflects that participants' cultural knowledge and skill level was not encouraged to become knowledgeable about patients cultural belief, value and practice and skillful in cultural and linguistic appropriate assessment in order to collect relevant data from diverse patient.

The present study found a significant difference in mean score of cultural competence based on participants' age groups in which older nurses were scored higher than younger nurses. Study in Thailand and Canada reported similar finding that cultural competence was positively associated with age (11, 9). The reason for this may be older nurses had more opportunities of exposure to different cultures than younger nurses. Participants with master's degree nurse scored significantly higher than those with diploma nurse and bachelor's degree nurse. This finding is consistent with other published study in Carolina (49). This indicates that additional continuing education leads to a significant difference in the level of cultural competencies of nurses. This could be due to trans-cultural nursing education in post graduate curriculum may benefited master's degree nurse to have higher cultural competence.

This study also revealed relationship between years of nursing work experience in their current hospital and cultural competence of nurses as measured by CCQN score. Studies in Israel, Italia, Iran, and Saudi Arabia reported similar finding that the mean scores of nurses were increased with years of experience (25, 33, 42, 43).

The finding of this study revealed that participants who speak only Amharic and English language were scored lower than those who can speak other languages. Therefore providing culturally competence nursing care is more difficult or challenging for who speak only Amharic and English language than their others. This is congruent with study done in South Africa and Korea that language proficiency was associated with cultural competence of nurses (26, 40).Thus, researcher suggested that it is better if hospitals design strategies and policies that enhance recruitment and retention of diverse nursing work force that mirror image with patients' population based on their language proficiency.

The previous study found that cultural competence was associated with position of nurse (40). The present study also support this finding that statistically significant difference in cultural competence mean scores between groups of participants by current role. However, significant difference did not found between other groups other than among head and staff nurses and the variance in mean score among them also quit small (η^2_H= .03). Due to this reason researcher did not draw conclusion even though influence of job position on cultural competence was reported in earlier study. Therefore, influence of this variable need to be further examined in the future research. Similar to study done in South Africa the present study found that religion was associated with cultural competence of nurses (26).

Previous studies found that having experience of caring for diverse clients have a significant impact on nurses' cultural competency (38). This is consistent with present study that experience of caring for patients culturally and ethically different from one's own improves cultural competence of nurses. The possible explanation for this may be their exposure to patients from diverse cultural backgrounds might positively influence their cultural competence level because nursing theorist suggested that exposure to culturally and ethnically diverse populations play an important role in improving cultural competence levels (18, 76).

The present finding did not found significant difference of mean scores of cultural competence based on frequency of caring for patients culturally and ethically different from one's own group. Incongruent to this, prior study showed that nurses who had cared for clients with different cultural backgrounds on more frequent basis had the highest mean scores of cultural competence on NCCS when compared with nurse who had less frequent caring experiences (37). Possible explanation for this may be due to different measurement scale of cultural competence of nurse.

Participants who had work experience from other than their current hospital were more culturally competent than their counterparts. This could due to their previous exposure to culturally diverse groups positively influence their cultural competence. However, there are no previous studies that examined association between work experience of nurses other than in their current hospital and cultural competence. Thus, further research investigating the relationship between this variable is needed to confirm the present result.

The present study found that participants who used interpreter for language they are not fluent were scored high than those who did not used. This supports the literature that indicates using interprets improve cultural competence of nurses (22, 23). This study also illustrated that among listed barriers of cultural competence, language barrier was most frequently mentioned to provide cultural congruent nursing care. In agreement to this finding language difference between nurses and patients was the most frequently reported obstacles to the provision of culturally competent nursing care in the recent previous study conducted in Taiwan, Saudi Arabia and USA (32, 53, 57).

10. STRENGH AND LIMITATIONS OF THE STUDY

10.1. Strength of the study

Self administered questionnaires for quantitative study can lead to the tendency of participants answering the question in the way they interpret and understands the questions. Participants also may answer expected response rather that what answering the true one. To overcome such bias the results were confirmed by qualitative finding. Another strength of this study were high response rate was obtained and appropriate statistical tests were used.

10.2. Limitations of the study

The potential limitation of this study that needed to be considered was the participants were represented only nurses working in tertiary hospital in Addis Ababa. This limitation did not allow for generalizability of the findings to all nurses in the country**.** Another possible limitation was concerning with sample size determination for this study. Since, there are no published studies on cultural competence among nurses in the country and other eastern Africa 50% population proportion was taken to calculate sample size.

11. CONCLUSION AND RECOMMENDATION

11.1. Conclusion

This study was aimed to examine level of cultural competence and associated factors among nurses working in tertiary hospitals. Despite cultural competence of participants was low to moderate, they expressed respect for cultural and religious practice of patients' as well as showed an interest to learn about culturally congruent nursing care. The main reasons for this low level competence were, they were not familiar to cultural competence and they have not guided by standard and guideline of culturally congruent nursing care rather they are doing what seemed right to them and providing nursing care in the same way regardless of their cultural, linguistic and religious difference. This may results in less likely to meet the needs of culturally, ethnically and linguistically diverse patients. Cultural competence of participants was hindered by several barriers and influenced by several factors that need nurses, nurse's administration, nurse educators, and policy makers, and other health care organizations to overcome it.

11.2. Recommendation

Based on the findings of this study the following recommendations were forwarded for Nursing practice, nursing admistration**,** nursing education, Ethiopia nursing association, policymakers and future researches.

Nursing practice

Nurses and other responsible bodies should struggle to improve cultural competence of nurses in order to provide culturally congruent nursing cares that is necessary in meeting needs of diverse patients in the country. This could be achieved through conducting cultural assessment and taking it in to consideration regularly, using interpreters effectively and consistently, integrating tran-cultural nursing as stand-alone course, continuing education, providing in-service and off-service training on cultural competence, preparing and motivating staff to attend seminars and conference on cultural competence.

Nursing administration

It is recommended that nursing administrator should assist, motivate and lead nurses in delivering culturally congruent nursing care. This could be accomplished through developing guideline that emphasize on culturally congruent nursing care, offering cultural care nursing training to nurses and monitoring implementation of culturally competent nursing care. Nursing administrator should also provide and assist in using trained interpreter and translator. Lastly, to improve cultural competence of nursing, nursing admistration should provide culturally and linguistically appropriate health education materials and work with traditional healers and community health workers and leaders.

Nursing education

Nursing educator should encourage nursing student and create effective learning opportunities to learn about trans-cultural nursing/ cultural competence both at class and clinical practice. Nursing school in the country should incorporate and ensure implementation of trans-cultural nursing courses in the nursing curriculum as standalone course and provide in service and off service cultural nursing care training.

Ethiopia nursing association

Ethiopia nursing association should take his leadership role to encourage all responsible body to emphasize on culturally congruent nursing care, cultural competence education and cultural competence related nursing research.

Policy maker

Health care policy maker should incorporate culturally congruent nursing care issue in to national health care policy and design and mandate standards of culturally competent nursing care to be implemented in health care.

Future Research

The present study was assessed cultural competence level and influencing factors of only nurses working in tertiary hospital in Addis Ababa. However, it would be more beneficial if cultural competence of larger sample of nurses working in more geographically diverse area and in different level of health institution including nursing educators will assessed. The researcher also recommended future researchers to assess cultural competence of more heterogeneous health care providers including physician, nurses, pharmacist and etc in the country that would brings more significant implication for policy maker and health care practitioners in the country. Patient's perceptions of the cultural competency of nurses in the country could assist in confirming level competence of nurse. Thus, it was also recommended for future researches to assess patients' perspectives regarding cultural competence of nurses. Future studies should also consider ethnographic study of cultures of Ethiopia in general and specific culture or subculture of society in particular that would help the nurses in providing nursing care for culturally diverse patients in respective of their cultures as a framework. Future studies should also evaluate impact of nurses' cultural competency on treatment outcomes and patients satisfactions.

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APPENDIX I: INFORMATION SHEET

Good morning/good afternoon! My name is _____. I have been collecting data on the Assessment of Cultural Competence and Associated Factors among Nurses Working in Tertiary Hospitals in Addis Ababa. The study is being conducted by Mr. Bonsa Amsalu who is MSc student in Adult health nursing specialty at Addis Ababa University. The objective of this study is to assess the level of cultural competence and its association factors with cultural competence of nurses working in Tertiary Hospital of Addis Ababa. You are being asked to take part in this study and to respond genuinely. This questionnaire asks about demographic factors and cultural competency of nurses. It will take approximately 25 minute to complete the questionnaire.

Participation

Your participation is voluntary and you are not obligated to answer any question you do not wish to answer. If you feel discomfort with the question, it is your right to drop it any time you want without penalty.

Benefit and risk

Although this study will not benefit you directly, the finding of the study will provide recommendations for future development of cultural competence education and practice. There is no harm or discomfort including physical, psychological and social risks to you except the time spent for completing the questionnaire.

Confidentiality

No personal information will be identified with in the data processing and with publication of the study outcomes. Your name will not be needed in this form and will never be used in connection with any information you tell us. All information given by you will be kept strictly confidential. The collected data will only be used for the purpose of the study. If you have questions regarding this study or would like to be informed of the results after its completion, please feel free to contact the principal investigator.

Address of the principal investigator:

Cell phone: +251 917442400/ Email: bonsaamsalu380@gmail.com

Data collector's name_____ Signature_____Date_____

THANK YOU VERY MUCH FOR YOUR COOPERATION

APPENDIX II: CONSENT FORM

In signing this document, I am giving my consent to participate in the study entitled "Assessment of cultural competence and associated factors among nurses working in tertiary hospitals in Addis Ababa". I have been informed that the purpose of this study is to assess the level of cultural competence and its association factors with cultural competence of nurses in Tertiary Hospital of Addis Ababa. I have understood that participation in this study is entirely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any way. I have also been informed that my participation or non-participation or my refusal to answer questions will have no effect on me. I understood that participation in this study does not involve risks. I understood that Mr. Bonsa Amsalu is the contact person if I have questions about the study or about my rights as a study participant. I informed that Address of the principal investigator is

Cell phone: +251 917442400/ Email: bonsaamsalu380@gmail.com

Respondent's signature: _____Date_____

Data collector signature: _____Date: _____

If no, skip to the next participant by writing reasons for his/her refusal.

_____

Results of questionnaire

1. Completed

2. Respondent not available

3. Refused

4. Partially completed

Identification: Questionnaire Number _____

Principal investigator name _____ signature _____

APPENDIX III: QUESTIONNIARE

Part 1: Socio-demographic characteristics cultural experience related factors questionnaire

Instruction: Please circle the appropriate number in front of the option or provide a response in the blanks where indicated.

No	Questions	Categories
101	Gender	1. Male 2. Female
102	Age	(_____) Years
103	Ethnicity	1. Amhara 2. Oromo 3. Tigray 4. Other Specify_____
104	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Others Specify_____
105	What is the highest level of education you have obtained?	1. Diploma nurse 2. Bachelor's degree nurse 3. Master's degree nurse
106	How many work experience you have in your current hospital?	(_____) Years or (_____) months if less 1 year
107	What is your current role (last three months)?	1. Matron nurse 2. Supervisor nurse 3. Head nurse

		4. Staff nurse
108	Do you speak any language(s) other than Amharic and English?	1. Yes 2. No
109	If your answer for question no 108 is yes; what is this/ are these language(s)? **Note** more than one answer is possible	1. Afan oromo 2. Tigregna 3. soomaali 4. Others Specify_____
110	Have you ever learned about cultural care nursing in any of your nursing programs?	1. Yes 2. No
111	Have you any experience with caring for patients with culturally and ethnically different from yours?	1. Yes 2. No
112	If your answer for question no 111 is yes; How often do you care for patients with culturally and ethnically different from yours?	(1). Almost every day (2). 1 or 2 times a week (3). 1 or 2 times a month (4). Several times a year
113	Have you worked in any health institution other than your current hospital?	1. Yes 2. No
114	If your answer is yes for question no 113 in which level of health institution you have worked? **Note:** more than one answer is possible	1. Tertiary hospital 2. General hospital 3. Primary hospital/Health center 4. other (specify)_____
115	Have you taken any training related to cultural care nursing?	1. Yes 2. No.
116	Do you use interpreter for any language you are not fluent?	1. Yes 2. No
117	If your answer for question no 116 is yes; Who you have used mostly as interpreter? **Note** more than one answer is possible	1. Family of patients 2. Colleagues 3. Medical interpreters 4. Others (specify)_____

Part two: Cultural competence questionnaire for nurses (CCQN)

Instruction: The followings are statements about nurses' cultural competence that has five alternatives with five point likert scale. Read each item carefully and circle 0 = if you totally (100%) disagree about the statement, 1=if you 25% agree about the statement, 2= If you 50% agree about the statement, 3= If you 75% agree about the statement, 4= If you 100% agree about the statement.

CULTURAL AWARENESS SCALE						
No	Items	scale				
		100% disagree	25% agree	50% agree	75% agree	100% agree
201	I examine my own cultural background and biases toward race, ethnicity, culture and religion that may influence my behaviors	0	1	2	3	4
202	I aware stereotyping that I have related to other race, ethnicity and cultural group	0	1	2	3	4
203	I aware that people from different cultural groups may define the concept of nursing care in different ways	0	1	2	3	4
204	I aware that including the cultural needs of patients in the	0	1	2	3	4

	nursing care would improve quality of nursing care					
205	I aware that one's beliefs and behaviors are influenced by one's cultural background	0	1	2	3	4
206	Cultural and linguistic differences between the nurse and patient could reduce quality of nursing care	0	1	2	3	4
207	people with a common cultural background think and act alike	0	1	2	3	4
	CULTURAL KNOWLEDGE SCALE					
208	I attempt to learn and use key words of the languages used by the patients and families served	0	1	2	3	4
209	I attempt to learn about diverse culture from people who provide information regarding cultural diversity	0	1	2	3	4
210	Nurse should invite guest with cultural knowledge to motivate nursing staff to deliver culturally competent care	0	1	2	3	4
211	Understanding the culture of patients doesn't need formal education	0	1	2	3	4
212	I know that there are cultural variations within the same cultural and ethnic groups of people	0	1	2	3	4
213	I can list at least two methods or ways of collecting cultural related information from patients and their families	0	1	2	3	4
214	I can easily identify cultural factors that influence health and illness belief of patients	0	1	2	3	4
215	I can easily identify the specific health problems among culturally diverse groups	0	1	2	3	4
216	I can easily identify the care needs of culturally diverse patients	0	1	2	3	4
217	I can interpret the patients' culture within their cultural beliefs, values and practices	0	1	2	3	4
	CULTURAL SENSITIVITY SCALE					
218	I can tolerate diverse cultural beliefs or behaviors among	0	1	2	3	4

	patients					
219	Caring for culturally diverse patient is a good chance to understand different cultures	0	1	2	3	4
220	I should respect if a patient uses any treatment method that differs from my professional knowledge	0	1	2	3	4
221	I should allow patients of diverse cultures to perform their religious ceremony and practices in the where they are admitted	0	1	2	3	4
222	I respect refusal of treatment because of patient cultural or religious belief	0	1	2	3	4
223	traditional medicine should be Incorporated into modern medical ways of treatment	0	1	2	3	4
224	I don't angry if patient speak his /her own language even though he/she knows my language	0	1	2	3	4
225	I accept every cultural practice of patients if it doesn't harm patients' health and wellness	0	1	2	3	4
226	Sometimes I unknowingly impose my cultural beliefs and values onto my patients whose cultural beliefs and values are different from mine	0	1	2	3	4
	CULTURAL SKILL SCALE					
227	I always assess patients' cultural values and practices during nursing assessment	0	1	2	3	4
228	I always assess patients' perception of health and illness during nursing assessment	0	1	2	3	4
229	I always assess patients' cultural beliefs about causation of illness during nursing assessment	0	1	2	3	4
230	I always utilize translators for the assessment of patients and their families whose spoken language is one for which I am not fluent	0	1	2	3	4
231	I can teach and guide other nursing colleagues about the	0	1	2	3	4

	differences and similarities of diverse cultures					
232	I can develop nursing goals and expected outcome according to each client's cultural background	0	1	2	3	4
233	I can teach and guide other nursing colleagues about planning nursing interventions for clients from diverse cultural backgrounds	0	1	2	3	4
234	I consider patients cultural background when I order their foods during their stay in the hospital	0	1	2	3	4
235	I have books and other reading materials available to learn about people from different cultures	0	1	2	3	4
236	I always document cultural related assessment when I conduct nursing assessment	0	1	2	3	4

APPENDIX IV: IN-DEPTH INTERVIEW CONSENT FORM (ENGLISH VERSION)

My name is Bonsa Amsalu. I am Post graduate nursing student (adult health nursing) at Addis Ababa University. I am conducting study entitled **"Cultural competence and associated factors among nurses working in tertiary hospitals in Addis Ababa, 2018"** as my MSc thesis. The objective of this study is to assess the level of cultural competence and its association factors among nurses working in tertiary hospitals in Addis Ababa. This consent form is prepared to ensure that you understand the purpose of your involvement and that you agree to participate in this study voluntary. The interview will take approximately only 20 minute.

Therefore read the following information sheet and sign the form below if you are agree to take part in this interview. Please tick in the provided box below if you agree with each statement

I understand that my participation is voluntary and I am free to stop the interview at any time without any reason	☐
I understand that my responses will be kept strictly confidential	☐
I agree that the interview will be audio recorded and transcript will be produced	☐
I understand my name will not identified or identifiable in research material,	☐
I understand that the transcript of interview will be accessed to and analyzed by	☐

only research investigator	
I can request copy of transcript of my interview	☐
I understand that I am free to contact the researcher with any questions I may have in the future	☐
I agree to take part in this interview	☐

Participant signature_____ date_____

Principal investigator signature_____ date _____

Contact information

This research has been reviewed and approved by the Addis Ababa University institutional review board (IRB). If you have any questions about this study, please contact:

Name of investigator: Bonsa Amsalu

Address: 0917442400/email: bonsaamsalu380@gmail

APPENDIX V: IN-DEPTH INTERVIEW GUIDE QUESTIONS (ENGLISH VERSION)

Part1: interviewee socio-demographic characteristics related questions

1. Gender
2. How old are you?
3. What is your highest level of education in nursing?
4. How many years have you worked as a nurse?
5. What is your current role?

Part 2: Cultural competence related questions guide

1. Mention component of cultural assessments you assess in your first contact with your patients?
2. Mention your previous effort to know cultural and religious belief, value and practice and linguistic of your patients?
3. Share me how much you have considered patient's cultural belief, Value and practice and as well as patients' linguistic preference in your day to day nursing care?

4. What are the barriers you have faced when you provide nursing care for patient culturally and linguistically different from yours?

APPENDIX IV: IN-DEPTH INTERVIEW CONSENT FORM (AMHARIC VERSION)

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APPENDIX V: IN-DEPTH INTERVIEW GUIDE QUESTIONS (AHMARIC VERSION)

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