

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENTS OF NURSES KNOWLEDGE, ATTITUDE AND PRACTICE
REGARDING NON-PHARMACOLOGICAL PAIN MANAGEMENT AND
ASSOCIATED FACTORS AT TIKUR ANBESSA HOSPITAL, IN ADDIS
ABABA, ETHIOPIA, 2017

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ABBREVIATION

AAU	Addis Ababa University
AIDS	Acquired immune deficiency syndrome
BSc	Baccalaureate of Science
CI	Confidence interval
ENA	Ethiopia nursing association
SPSS	Statistical Software Package for Social Sciences
TENS	Trans-electrical nerve stimulation
US	united states
WHO	World health organization

Abstract

Background: Non- pharmacological interventions are essentially useful for pain management than pharmacological pain management, because they are low cost, easy to provide, safe and nurses can implement them with little difficulty or resources. Therefore, Nurses must have a great knowledge of non- pharmacological methods to practice effectively.

Objective: To assess knowledge, altitude and practice regarding non pharmacological pain management and associated factors among nurses in Tikur Anbessa specialized hospital, Addis Ababa Ethiopia, 2017

Methods: A cross-sectional study design was conducted among nurses who are working in Tikur Anbessa specialized hospital from March25, 2017 to April 25, 2017.Total sample size was 270 nurses in the study selected by using simple random technique. Data were collected using structured self-administered questionnaire. Data was cleaned and entered using Epi-data version 3.1and then imported to SPSS version 22.0 software and was data analysis.

Results: About 52 % nurses had good knowledge about non-pharmacological pain management; positive attitude 34.6% and about 52.8%% had good non-pharmacological pain management practice. Factors significantly associated with non-pharmacological pain management practice at p value<0.05 were age (AOR=0.348(95%CI (0.188, 0.643)),In-service training (AOR=2.173(95%CI 1.21, 3.903)), and patient/family need pill (AOR=1.832(95%CI 1.017, 3.3))

CONCLUSION AND RECCOMENDATION: About 52 %nurses had good knowledge, 34.6% positive attitudes and 52.8% had good practice. Age, in-service training and patient need pill being about non-pharmacological pain management were significantly associated with non-pharmacological pain management practice. Therefore, in-service training program and nurses educate patient about benefits of non-pharmacological method.

Key words: pain, non-pharmacological pain management, nurses, knowledge, attitude, practice

1: INTRODUCTION

1.1 Background

According to the International Association for the Study of Pain [IASP] Pain is an unpleasant sensory and emotional experience associated with actual or potential damage or described in terms of such damage(1). Every day millions of people suffer from pain whether they are in the hospital, their homes, or assisted living facilities. Pain is one of the most common reasons that patients seek medical treatment as well as being one of the most feared consequences for patients. Pain is a personal experience that impacts the quality of life, increases vulnerability in an already vulnerable population, and promotes dependence on health care providers for access to tolerable pain management (1, 2).

Reducing pain to a “tolerable” level was once considered the goal of pain management. It includes two basic types of nursing interventions: pharmacological and non-pharmacological. Non-pharmacological or complimentary therapies are methods to use relief pain that medications do not have such as giving the patients a more active role in managing their pain. This method should not be used as a substitute for adequate pharmacological management, but should be combined with pharmacological methods to achieve effective pain management (3). People have used “natural ” ways to help with pain and healing from the very beginning of time. Non-pharmacologic interventions include cognitive behavioral therapy, relaxation, biofeedback, patient education, self-management, and social support interventions. These types of interventions aim to change behavior, cognitions, and emotions by targeting the psychosocial processes that are implicated in the perceptions and response to pain. There is good Evidence that these interventions can be effective in managing pain, particularly in relation to the cognitions surrounding pain (4). patients with pain needs a team approach care but, Nurses are vital in pain diagnoses and treatment in all health care settings because; nursing staff spend more time with patients than any other health care provider and closest to the patients and their families . Therefore; Nurses can implement non-pharmacological pain management method with little difficulty or resources to facilitate comfort for Patients within the hospital setting. But, guidelines for use of these methods are commonly inadequate (5).

1.2 Statement of the problem

Pain is a personal experience that impacts the quality of life, increases vulnerability in an already vulnerable population, and promotes dependence on health care providers for access to tolerable pain management; unless nurses give quality care based on the best available evidence to prevent patients from sense of pain. Ineffective pain management can affect patients' physiologic, psychological, and financial status. Non-pharmacological interventions are actually useful for pain management, because they are low cost, safe and easy to implement them with little difficulty or resources than pharmacological pain management. Non-pharmacological pain management therapies are increasing patient status; but, medical personnel as well as patient's knowledge of these therapies are not well researched (2). More research is needed to evaluate if non-pharmacological pain management methods are providing optimal pain management for their patients and if they have the necessary knowledge and attitudes to do so

The prevalence and severity of pain amongst hospitalized patients is up to 75% of patients experience moderate to severe pain and that in many cases this pain is not managed correctly in globally (6). In the hospital care setting are many barriers preventing non-pharmacological pain management, like Workload, lack of proper materials, lack of knowledge, perceptions of pain and lack of skill were the main reasons that prevented nurses from using non-pharmacological pain management(7).

Research related to nurses' knowledge, attitudes, and practice regarding non-pharmacological pain management in the hospital care setting in Ethiopia is only one study done but, no any documented study in Tikur Anbessa hospital reporting nurses' knowledge, attitudes and practices related to non-pharmacology pain management as well as barriers to effective practices. The aim this study is to determine the baseline level of nurse's knowledge, attitude and practice regarding non-pharmacological pain management as well as barriers in Tikur Anbessa hospital. Because, assessment nurses knowledge, attitudes and practice is a vital start in reducing barriers to adequate pain relief. This will lead to more effective pain management.

1.3 Significance of the study

Non-pharmacological management may help in reducing pain and must be encouraged as part of Complementary pain management effort. It improves both the quality of care and healthcare outcomes or quality of life.

This study will contribute for identify gaps in nurse's level of non-pharmacological pain management and associated factors.

The study result will be help for nurses and promote effective use non-pharmacological pain management methods in the hospital setting because; nurses knew their gaps and benefits of non-pharmacological pain management method in this study. In addition, this study could be used as a baseline for future studies and give direction minister of health to the important of the development of pain management policy.

2: LITERATURE REVIEW

2.1. Introduction of pain

Pain is an unpleasant sensory and emotional experience associated with actual or potential damage. It is personal and subjective symptom that is influenced by age, gender, race, and psychosocial factors (5). It develops sensory experience of pain the interaction between the nervous system and the environment. The processing of noxious stimuli and the resulting perception of pain involve the peripheral and central nervous systems. The nerve mechanisms and structures involved in the transmission of pain perceptions to and from the area of the brain that interprets pain are nociceptors, or pain receptors, and chemical mediators. Nociceptors are receptors that are preferentially sensitive to a noxious stimulus. Nociceptors are also called pain receptors. Nociceptors are free nerve endings in the skin that respond only to intense, potentially damaging stimuli. Body also releases prostaglandins are chemical substances thought to increase the sensitivity of pain receptors by enhancing the pain- provoking effect of bradykinin. These chemical mediators also cause vasodilation and increased vascular permeability, resulting in redness, warmth, and swelling of the injured area (8). There are three types of pain, based on where in the body the pain is sensed: 1st: somatic (caused by the activation of pain receptors in either the body surface or musculoskeletal tissues), 2nd: visceral (the pain we feel when our internal organs are damaged or injured and is by far the most common form of pain), and 3rd: neuropathic (caused by injury or malfunction to the spinal cord and peripheral nerves). Pain of all three types can be either acute or chronic. Acute pain is short lasting and usually manifests in ways that can be easily described and observed. Chronic pain is defined as pain lasting more than three months. It is much more subjective and not easily described as acute pain. The three pain types can be sensed at the same time or singly and at different times. Somatic and visceral pain is easier to treat than neuropathic pain (9).

Approximately 42% of adults say experience pain daily, and approximately 28-30% of the US populations suffer from chronic pain. Pain is the most common symptom in all kinds of illnesses but it is extended Problem among patients who live with chronic illnesses such as HIV/AIDS and cancer. World-wide, chronic pain is the most frequent cause of suffering and disability that seriously affects the quality of life. According to WHO every day 3.5 million people suffer from cancer related pain (10, 11). Pain is the second most common symptoms in ambulatory persons

with HIV/AIDS and according to a study in a New York cohort of 500 AIDS patients, the prevalence of pain was observed to significantly increase with the progression of the disease from early stage HIV to full blown AIDS. Nearly half of the pain in HIV is neuropathic, reflecting injury to the central or peripheral nervous system from direct viral infection, infection with secondary pathogens, or neurotoxic side effects of drug therapy. In Africa, each year 2.5 million people die from HIV/AIDS and more than 0.5 million die from cancer and many of these deaths are accompanied by suffering that could be avoided or relieved if adequate palliative care were delivered. Each year in five countries of Africa including Ethiopia, 610,000 people die from HIV/AIDS and 80,800 from cancer thus at least 0.5% of the total population in these countries need palliative care. In Ethiopia, the commonest concern raised by families of disabled patients is the pain associated with illness mentioned, by 76% of participants and in most of the cases, care takers complain that adequate procedures are not taken to relieve pain, and other harmful symptoms associated with terminal illnesses (10, 11).

2.2. Non-pharmacological pain management

Non-pharmacological pain management is one approach to a comprehensive method of pain relief. They do not replace pharmacological method of pain management and can be used in combination with pharmacological pain management practices to increase the patient's relief of pain. This pain management can be categorized into three. There are cognitive or behavioral strategies, which include distraction, relaxation, imagery, and breathing techniques. The second categories are physical or cutaneous strategies, which include heat /cold, vibration, massage, position changes and trans-electrical nerve stimulation (TENS). Finally, there are environmental or emotional strategies such as touch, reassurance, or interior decoration of the room (12).

The nurse must think many things when selecting one of these treatment options. For example, they must consider the relationship between non-drug and drug treatments, the patient's previous experience, current attitude and the patient's coping styles (13). The cognitive behavioral strategies are thought to be interfering with the neural perceptions of pain in the brain. They change the subjective experiences of pain intensity. According to International Journal of Nursing Studies conducted distractions are directing attention away from pain by focusing attention and concentration on something else. There are many different types of distractions including music, comedy and movement. Those techniques require more active participation by

the person experiencing pain and are more effective in relieving pain (14). Relaxation is the second cognitive behavioral strategies that work to relive pain because of the reduced muscle tension. These techniques included relaxation imagery, which engages a person imaging a pleasant or peaceful experience. Others also included music, massage and slow breathing when a person is relaxed, their heart rate, blood pressure, respirations decrease. Cutaneous interventions such as heat or cold work according to the gate control theory of pain transmission. Stimulation of the skin activates the large diameter nerve fibers and prevents the short diameter nerve fibers from transmitting pain to the brain. Cutaneous stimulation may be applied to the site of pain or other sites distal or proximal to the pain. The use of cold is almost always more effective than heat, and alternating cold and heat is even more effective than using one thermal method alone. Both heat and cold cause a decrease in the sensitivity to pain or decrease muscle spasms and that may be why they work to relive pain (15).

Vibration is a second type of cutaneous stimulation that causes paresthesia or anesthesia to the area stimulated and changes sharp pain to a dull sensation. Pain relief can last for up to 30 minutes after the vibration is removed. The use of heat with vibration is the best cutaneous stimulation method to relive pain. Massage is another type of a cutaneous therapy to relief pain. The back and shoulders are the areas typically massaged. In a study of terminally Illness a three-minute slow back rub lowered blood pressure indicating relaxation and less pain (15). In general, Non- pharmacological interventions are actually useful for pain management, because they are low cost, easy to provide, safe and easy to implement them with little difficulty or resources than pharmacological pain management.

2.3. Knowledge related to non-pharmacological pain management

Nurses need a wide basic knowledge about pain, its assessment and management principle. Knowledge deficits' regarding pain assessment and management principles has been cited as one of the clinician-related barriers to optimal pain management for patient with pain. Nurses should have knowledge of the use of non-pharmacological approaches such as the use of hot and cold mechanisms, acupuncture, massages and breathing measures among others employed in pain management (16).but; Many study not focus nurse knowledge on non-pharmacological pain management strategy but those focus pharmacological pain management strategy. In addition to the areas of pain management required of a nurse, knowledge of the existing standards of pain

management as well as the already established recommendations are considered to be vital, as nurses have the potential to play a vital role in pain management and education.

In study done ShahidSadoughi hospital, Yazd, Iran stated that nurses have widespread knowledge deficits and limited training regarding cancer related pain management (17).

In studydoneMakkah EI-Mukarramah showed that, the level of nursing knowledge on non-pharmacological pain management for hospitalized patient were in the satisfactory and fair level (15). But; other study done at west Gojjam,, Ethiopia, showed that, the level of nursing knowledge on non-pharmacological pain management in hospital care setting was an unsatisfactory level (12). Insufficient knowledge remains a major barrier to achieving effective pain management.

2.4. Attitudes related to non-pharmacological pain management

Attitude is a hypothetical construct that represents an individual's like or dislike for an item. Attitudes are positive, negative or neutral views of an "attitude object": i.e. a person, behavior or event. People can also be "ambivalent" towards a target, meaning that they simultaneously possess a positive and a negative bias towards the attitude in question. Negative attitudes of nurses related to the experience of pain and pain management have been a barrier to effective pain management for many years and a positive attitude is the key to successful pain management (18). The attitude of nurses about evidence-based pain management likely affects their ability to obtain desired patient outcomes.

Nurses have the legal responsibility to manage patients' pain and medical/surgical nursing units should be staffed well enough by nurses to carry out their duties (19).Registered nurses at Bindura Hospital had poor attitude regarding pain management of adult medical patients (20).

A study done at Makkah EI-Mukarramah showed that, nurses' have positive attitudes and high level of efficiency in applying non-pharmacological methods for pain management. The majority of subjects have achieved a satisfactory level in patient's preparation, distraction, thermal regulation, massage and touch and environmental comfort (85%,77.5%,72.5%,80%,100%,and 95% respectively(15). A study done at west Gojjam zone, Amhara regional state that the majority of subjects have had a positive attitude of (Willingness to prepare the patient to the Procedure, teaching the patient about non-pharmacological methods, encouraging the patient to use non-pharmacological methods,(80%, 79% and 75.5% respectively) and had a negative

attitude on family involvement in pain management programs and environmental decoration (54.7% and 52% respectively)(12).

2.5. Practices related to non-pharmacological pain management

The promotion of comfort and reliefs of pain are fundamental to nursing practice. They often use non pharmacological measures to facilitate comfort for patients within the hospital setting. However, guidelines for use of these measures are commonly inadequate or absent (5). Nursing staff can educate patients, families, and other clinicians to use non-pharmacological strategies to manage pain, such as relaxation, massage, and heat/cold. They can investigate patients' attitudes and beliefs about, preference for and experience with non- pharmacological pain-treatment strategies. They can thus tailor non-pharmacologic techniques to the individual (21).

Non pharmacological interventions can be used to supplement pharmacological treatment for pain relief but; critical care nurses use of non- pharmacological pain management methods are inadequate and needs to be applied with their patients during pain (14). Study in Makkah El-Mukarramah the percentage of applied non-pharmacological pain management was low in hospitals, but some non-pharmacological pain management use like; a satisfactory level in

Patient's preparation, distraction, massage and touch (65%, 92.5%, 67.5%,60%respectively) and an unsatisfactory level in thermal regulation and environmental comfort (52.5%, 42.5% respectively)(15).

Other study in west gojjam non-pharmacological pain management is UN satisfactory practice, But; some non-pharmacological pain management used like; unsatisfactory level of practice in (position change, massage, distraction, touch, and environmental comfort (58.3%, 57.6%, 55%, 54%, and 53% respectively) and satisfactory level in thermal regulation, heat/cold application (64% and 61.5%respectively).

2.6. Barriers of non- pharmacological pain management

Nurses identified that non-pharmacological pain management techniques was one of the areas that they received the least amount of information, as a factor that may have prevented them from using those therapies (22). Significant barriers such as lack of organizational and professional support were also identified as delaying nurses 'current usage of non-pharmacological therapies (23, 24). Barriers identified included lack of distraction materials,

being a stranger to the child, and nurses' lack of knowledge. Nurses indicated that they used simpler techniques like distraction and focusing on breathing most frequently. The barriers to optimally managing pain and using non-pharmacological pain techniques seem to be similar to nurses' knowledge, time and attitude on pain management (25). Patients often have poor understanding regarding pain management, which results in low expectations of pain relief and satisfaction with inadequate pain control. Health care professionals often lack appropriate knowledge, attitudes and skills to effectively manage pain due to inadequate education (14). According study Makkah El-Mukarramah the most common barrier that prevents nurses using non-pharmacological methods for pain management for patients in the hospitals was the lack of time, and then followed by unwillingness of patients and lastly, the age level of the patient.

According study west Gojjam the most barriers to using non-pharmacological therapies the largest barrier identified by (38.6%) of the nurses responding was lack of time, patient unwillingness (32.5%), lack of equipment (13.1%), family/patient needs for pill (9.9%) and lack of attention and age of the patient were identified as other barriers.

2.7. Conceptual framework

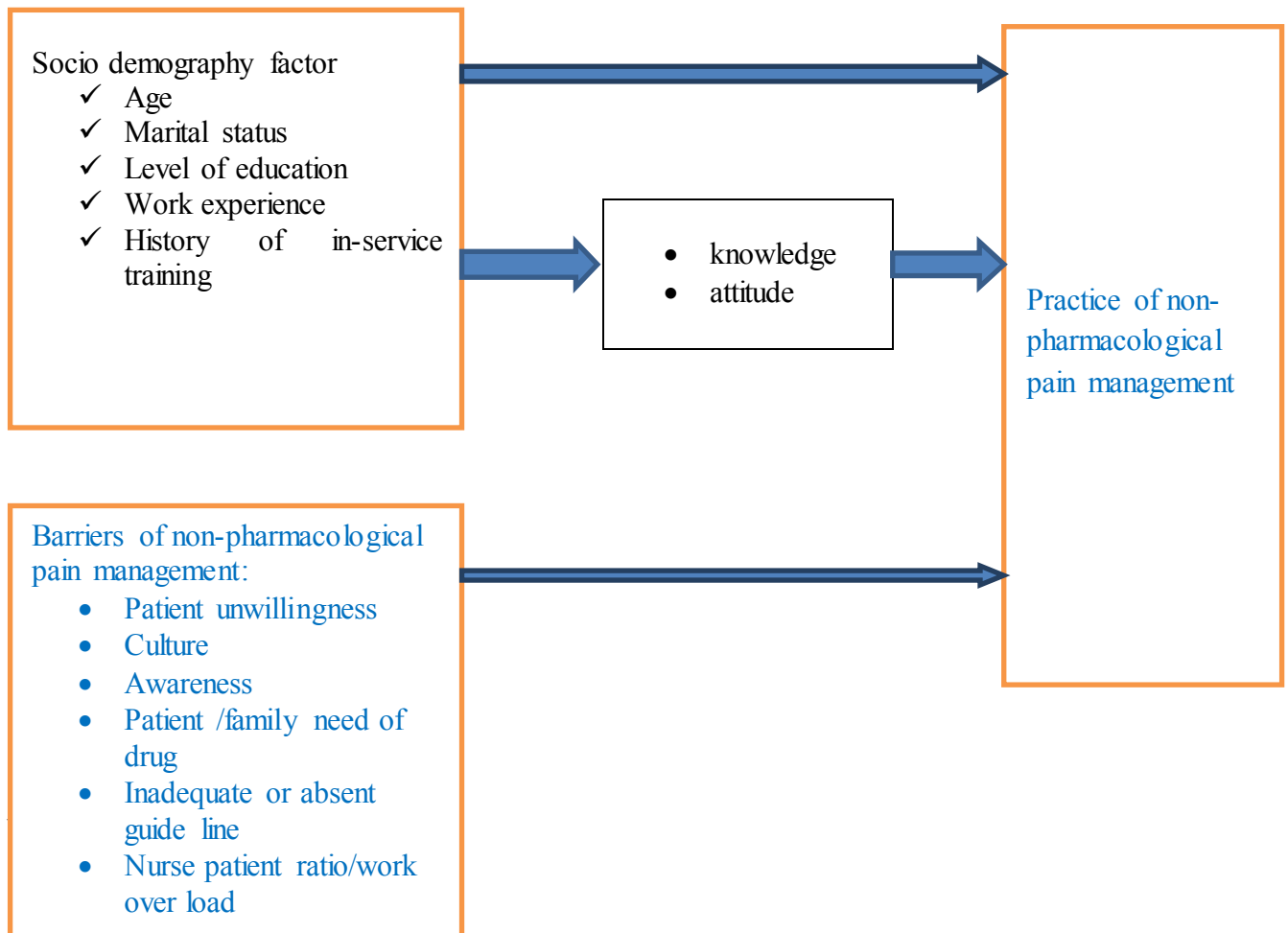


Figure 1 – Conceptual framework showing factors affecting nurses knowledge, attitude and practice on non-pharmacological pain management method, self developed conceptual framework of the study

3: Objectives of the study

3.1 General objective;

To assess nurse's knowledge, attitude and practice regarding non- pharmacological pain management and associated factors in Tikur Anbessa, specialized hospital, Addis Ababa, Ethiopia, 2017

3.2 Specific objective;

- To determine the knowledge of nurses regarding non-pharmacological pain management in Tikur Anbessa, specialized Hospital.
- To determine the attitude of nurses regarding non-pharmacological pain management in Tikur Anbessa, specialized Hospital.
- To determine nurses practice regarding non-pharmacological pain management in Tikur Anbessa, specialized Hospital.
- To identify factors associated with practice on non-pharmacological pain management among nurses in Tikur Anbessa, specialized Hospital.

4: METHODOLOGY

4.1 Back ground of the Study Area

The study was conducted at TikurAnbessa specialized hospital, Addis Ababa the largest referral hospital in the country is found in Kirkos sub city. It was inaugurated by the title “Prince Mekonnen the Dunk of Harar” Memorial Hospital on 3/11/1953 E.C. The name was changed to TikurAnbessa Hospital on 24/5/1975 E.C. Later on it was transferred to Addis Ababa University to become a teaching hospital and is now the main teaching hospital for both clinical and preclinical training of most disciplines. The hospital has 700 beds and 837 nurses. Nurses are qualified with diplomas, a bachelor’s degree and a master’s degree in nursing. Tikur Anbessa specialized Hospital has been chosen because it is also an institution where specialized clinical services that are not available in other public or private institutions are rendered to the whole nation. The largest numbers of nurses have contact with variety patient with pain.

4.2 Study Design

Quantitative Cross-sectional study design was used.

4.3. Study period

The study was conducted from March 25, 2017 to April 25, 2017

4.4 Population

4.4.1 Source population

All nurses who were working in Tikur Anbessa specialized hospital during the study period and willing to participate in the study

4.4.2 Study population

Selected Nurses who were working in Tikur Anbessa specialized hospital during the study period and willing to participate in the study

4.4.3 Study unit

Selected Nurses who were working in Tikur Anbessa, specialized hospital for at least six months

4.5 Inclusion and exclusion criteria

4.5.1. Inclusion criteria

Selected Nurses who were working in patient department in Tikur Anbessa, specialized hospital

4.5.2 Exclusion criteria

- Nurses who were working in outpatient department
- If selected Nurses were unwilling to participate and sick in data collection time

4.6 Sample size determination

The required sample size of eligible participants for the study was determined by using a single population proportion formula.

$$\text{Formula: } n = \frac{Z_{\alpha/2}^2 * p(1-p)}{d^2}$$

Where: n = the desired sample size

P= 65.1 %, estimated proportion of nurses have negative attitude with UN satisfactory practice on non-pharmacological pain management from the research done in West Gojjam (12).

d =5% (maximum margin of error the researcher is willing to allow)

Z =1.96 (standard normal deviation value corresponding to 95% confidence level)

$$n=349$$

The total number of nurses in Tikur Anbessa, specialized hospital is 837. So since this figure is below 10,000 we used the following correction formula for the sample size determination:

$$S = n / (1 + n/N)$$

n = sample size for population of size above 10,000

N = number of nurses in hospital

$$S = 349 / (1 + 349/837)$$

S=245.8 Adding 10 % (24.58) for non-response rate, Therefore, the required sample size of this study is 245.8+24.58= 270

4.7 Sampling technique

In this study simple random sampling technique was used. Study participant was selected by using lottery method from list of nurses. This list was obtained from mentor of nurse and was select study unit until fulfilled sample size.

4.8 Variables of the study

4.8.1 Outcome (Dependent) Variable

Practice on non- pharmacological pain management method

4.8.2. Intermediate variables

- Knowledge
- Attitude

4.8.3 Independent variables:

- ✓ Socio demographics like; Age, Level of education, Work experience, History in-service training on non-pharmacological pain management
- ✓ Patient factor like; un willingness, Patient/family need drug, Culture and lack of Awareness
- ✓ Organizational factor like; No enough pain assessment and management protocol and guide line, Staff-patient ratio, Lack of facilitation of in-service training and Lack of equipment.

4.9. 1 Operational definitions

Pain: Pain is unpleasant sensory and emotional experience associated with actual or potential tissue damage.

Acute pain: Acute pain is short lasting and usually manifests in ways that can be easily described.

Chronic pain: Chronic pain is defined as pain lasting more than six months

Pain management: Pain management is the relieve of pain or reduction in pain to a level that is acceptable to the client.

Non-pharmacological pain management: Non pharmacological or complementary therapies are methods that help to decrease pain without the use of medication.

Knowledge: - A familiarity, awareness or understanding of nurses regarding non-pharmacological pain management methods gained through experience or study.

Good knowledge: -Those nurses who answeredabove the mean of the knowledge questions

Poor knowledge: - Those nurses who answeredbelowthe mean of the knowledge questions.

Attitude: - Pattern of nurses' mental views towards non pharmacological pain management methods.

Positive attitude: -Those nurses who answeredabove the mean of the attitude questions

Negative attitude: - Those nurses who answeredbelowthe mean of the attitude questions

Practice: - Nurses' activities or behavioral experience in relation to non -pharmacological pain management.

Good practice: -Those nurse who able to answer above the mean of the practice questions.

Poor practice:Those nurses who able to answer below the mean of the practice questions

4.10 Data Collection procedures

4.10.1. Instrument

A structured self-administered questionnaire was used to collect data from participants. It was adapted from Bicek E. Kipkorir, C. Hanan et al (2, 15) with some modification by researcher. It was presented in English and interpreted to Amharic back translated into English by another person to check for regularity. It consisted of both closed and open ended questions and it has five parts.

part one: socio-demographic characteristics: it include questions about the following data: age, gender, level of education, years of experience, amount of pain education whether there are any pain assessment tools and whether these tools are used.

Part two:nurses' knowledge assessment questionnaire: It include question to assess nurses' knowledge regarding non-pharmacological pain management

Part three:Nurse's attitude assessment questionnaire: It included to the use of non-pharmacological methods in pain management among patients in which the nurse chooses alternatives that best represent her/his attitudes. Such as preparing the patient carefully for a procedure, encouraging the patient to think about/imagine pleasant and positive matters when s/he feels pain, trying to focus patient's thoughts/attention away from pain, encouraging patients to relax and teaching them correct breathing technique.

Part four: nurses practice assessment questionnaire: practices, types of non-pharmacological pain management therapies like thermal regulation, massage, position change, distraction, heat /cold application and verbally comforting and reassuring the patient

Part five: assessment of barrier on non-pharmacological pain management practice questionnaires. It include organizational related and patient related question.

4.10.2 Data collection methods

The Data collectors was four trained degree nurses who was assigned at each unit from inside of Tikur Anbessa, specialized hospital and was supervised by principal investigator. The principal investigator was making the overall supervision daily. The purpose of the training is the objective and methodology of the research, data collection approach.

4.10.2 Data Quality control

Pre- test: was carried out on 5% from actual sample size nurses who are fulfilled the criteria Prior to the actual data collection. They were chosen from the Debre Brhan hospital. This initial study was conducted to test the content applicability, clarity and arrangement of the items needed for each questionnaire. After pre -test unclear questions were changed or corrected.

4.11 Data processing and analysis

Data was checked, cleaned and entered into 3.1 versions Epidata software, then imported to SPSS version 22.0 software for analysis. Incomplete and inconsistent data was replaced by other questionnaires for analysis. The result of the descriptive statistics was expressed as percentage and frequency. Associations between independent variables and dependent variables were analyzed first using bivariate analysis to identify factors which are significantly associated with the outcome variable. The magnitude of the association between the different independent variables in relation to dependent variables was measured and 95% confidence interval (CI) and P values below 0.05 were considered statistically significant.

4.12 Ethical consideration

An ethical clearance and official letter was obtained from the Research and Ethics Committee of School of Nursing and midwifery of AAU to Tikur Anbessa, specialized hospital. After getting permission from the hospitals to participate in the study, verbal and written consent was obtained. They were informed that there is no incentive or harm for their participation in this study. Finally, participants' identity was unnamed during data collection and analysis.

4.13 Dissemination plan

The results of the study will be presented and submitted to Addis Ababa University, College of Health Sciences School of Allied Health Department of Nursing & Midwifery. The results will be submitted to Tikur Anbessa, specialized hospital. The study abstract will be presented in

associations like Ethiopian Nursing Association (ENA) and the summary of the thesis will be submitted to the international or national peer reviewed journal for publication.

5: Result

The result is presented in two parts. The first part is descriptive statistics and the second part is inferential statistics.

5.1 socio-demographic characteristics of participant

A total of two hundred sixty nine (269) nurses in Tikur Anbessa hospital were participated in the study and the response rate was 99.6%. Also 125 (46.5%) were male and 144(53.5%) were females. The sample include nurses in all age groups from 20 or below up to 60+ years of age; the most common age was 21-29 age group or(63.9%) of the sample and there was no any record of 60+ years. Fifty two percent of nurses were single and nurses with their Baccalaureate (84.8%) of the sample. The largest work experience study participant 0-9 years, which was 189(70.3%)nurses .Among all of nurses that completed surveyonly 120 (44.6%) said there was assessment tool unavailable on their unit and 117(43.5%) use it (**Table 1**).

Table1: socio-demographic characteristics of nurses in Tikur Anbessa specialized hospital, Ethiopia.2017

Variables	Frequency (n=269)	Percent
Sex of nurse:		
Male	125	46.5
Female	144	53.5
Age of nurse:		
<20 year	1	0.4
21-29 year	172	63.9
30-39year	76	28.3
40-49year	16	5.9
50-59year	4	1.5
>60year	-	-
Marital status of nurse:		
Married	125	46.5
Single	141	52.4
Divorced	2	0.7
Widowed	1	0.4
Level of education among nurse:		
Diploma	14	5.2
Baccalaureate	228	84.8
Master's	27	10
PhD	-	-
Work experience of nurse:		
0-9year	189	70.3
10-19year	68	25.3
20-29year	7	2.6
30-39year	5	1.9
>40year	-	-
Any class of non-pharmacological pain management:		
Yes	83	30.9
No	186	69.1
Hours of non-pharmacological (n=83)class:		
0-5 hr.	50	18.6
5-10 hr.	15	5.6
10-15hr.	7	2.6
>15hr.	11	4.1

If no ,do you wish for more education:

Yes	173	64.3
No	14	5.2

Use Pain Tool on Unit:

Yes	120	44.6
No	149	55.4

If yes, did you use this

Yes	112	41.6
No	8	3.0

5.2 non-pharmacological pain management methods utilization

Majority of study participants used position change 128(47.6%), massage 116(43.1%), reassurance 101 (37.5%), distraction 95(35.3%) and heat/cold 73 (27.1%) for pain management

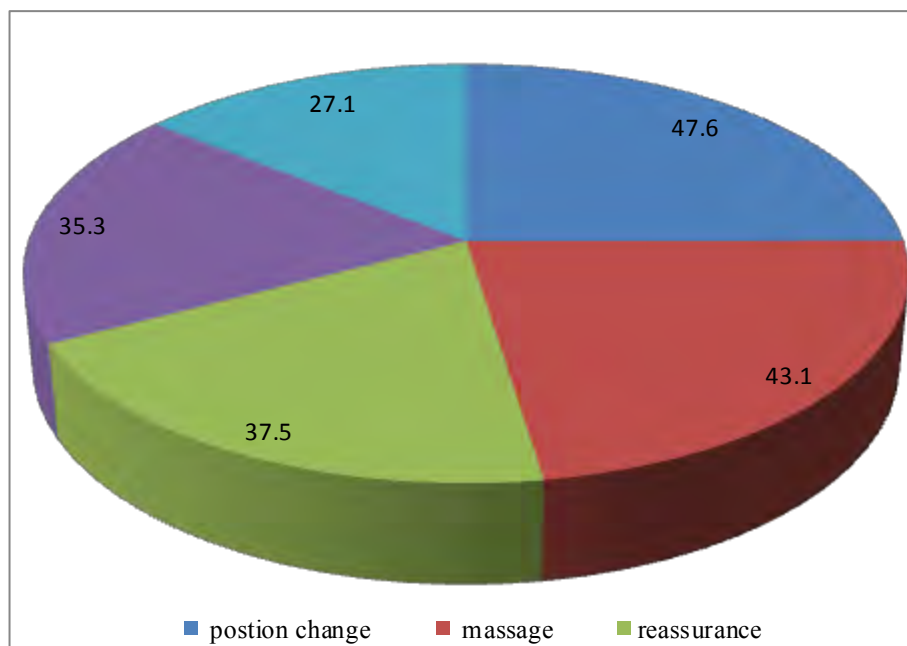


Figure 2: Utilization of non-pharmacological pain management methods of respondent

Table 2: knowledge, attitude and practice of the respondents on non-pharmacological pain management among nurses in Tikur Anbessa, hospital, Ethiopia, 2017

Characteristics	Frequency	Percentage	mean	+_SD
Knowledge				
Poor	129	48	7.71	0.97
Good	140	52		
Attitude				
Negative	176	65.4	8.2	1.32
Positive	93	34.6		
Practice				
Poor	127	47.2	12	1.77
Good	142	52.8		

5.3 Knowledge of respondents about non-pharmacological pain management

Among 269 nurses, 140(52%) had good knowledge and 129(48%) had poor knowledge about non-pharmacological pain management methods (**Table2**).

Table 3: distribution of nurses knowledge regarding non-pharmacological pain management inTikurAnbessa hospital, Ethiopia, 2017

Variables		Frequency (n=269)	Percentage (%)
A suitable room temperature and good air condition can relieve pain.	yes	246	91.4
	No	23	8.6
Provide the patient with a possibility to rest by minimizing noise can relieve pain.	YES	213	79.2
	NO	56	20.8
Including family members in the pain management regimen can increase patient's ability to manage pain.	YES	228	84.8
	NO	41	15.2
Try to focus a patient's thoughts/ attention away from pain can decrease pain.	YES	217	84.0
	NO	52	16
Asking the patient to suggest ways to relive his/her pain can increase patient's ability to manage pain.	YES	226	78.8
	NO	43	21.2
Patients who can be distracted from pain usually do not have severe pain.	YES	212	36.1
	NO	57	63.9
Non drug interventions (e.g. distraction, heat, music, imagery etc.) are effective only for mild pain.	YES	97	38.8
	No	172	68.8

5.4. Attitude of respondent regarding non-pharmacological pain management

A majority of participant have negative attitude towards non-pharmacological pain management method such as, minimize noise 56(20.8%), advise non-pharmacological pain management 64(23.8%), proper carefully for procedure 66(24.5%), interior decoration 113(42%) and family member involvements131 (48.7%) (Figure 3)

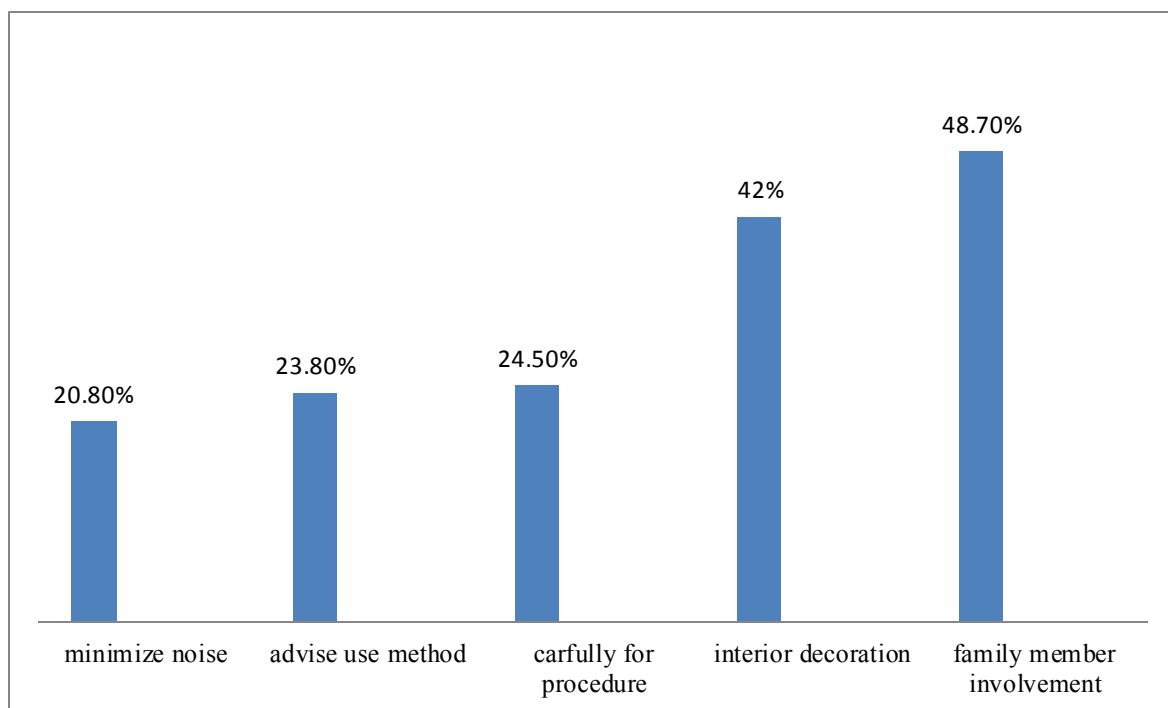


Figure 3: Attitude of respondent among nurses in Tkur Anbessa hospital, Ethiopia, 2017.

5.5. Practice of participants regarding to non-pharmacological pain management

A majority of participants practice on heat application 210(78.1 %%), cold application 200 (74.3%), massage 173(64.3%) and position change 135(50.2 %%)(**Figure4**)

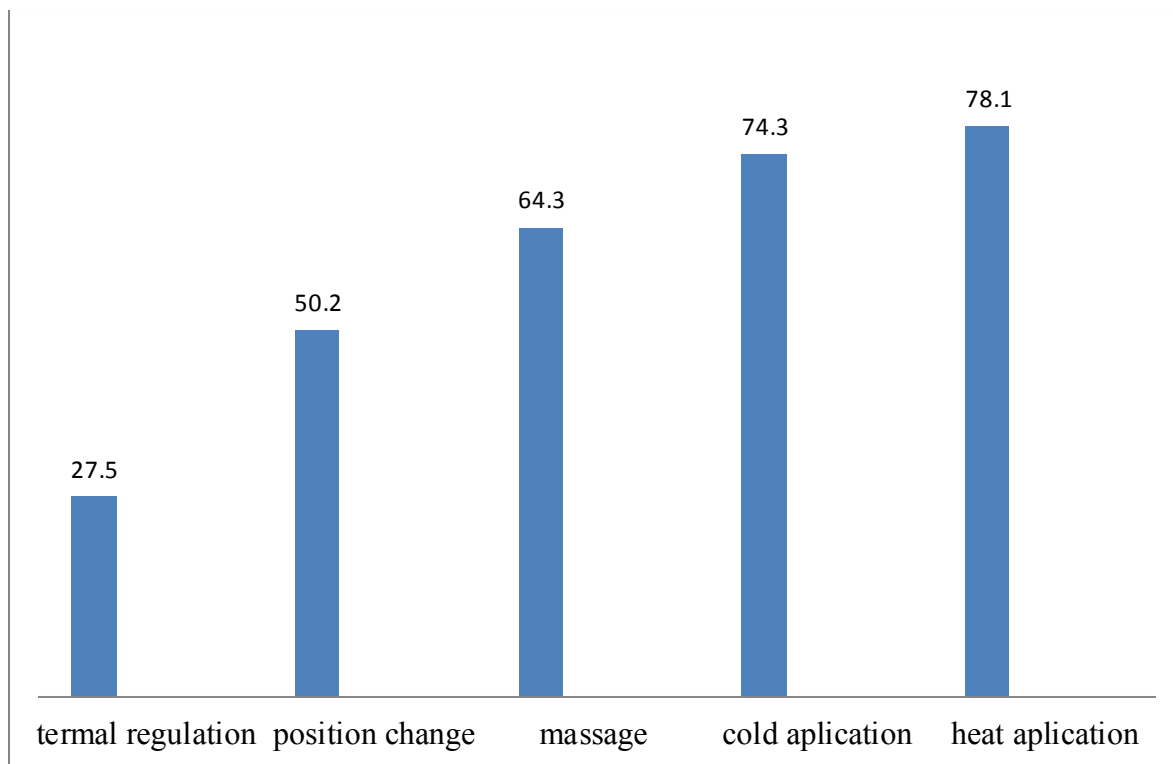


Figure 4: practice of respondent among nurses in TikurAnbessa hospital, Ethiopia, 2017

5.6 barriers of using non -pharmacological pain management methods

The barrier identified for the use of non-pharmacological pain management 189(70.3%) family/patient preference for pill, 184 (68.4%) work load, 148(55%) patient unwillingness], absence of guide line133 (49.4%), lack of in-servicetraining 114(42.4%) and 76 (28.3%) lack of equipment.

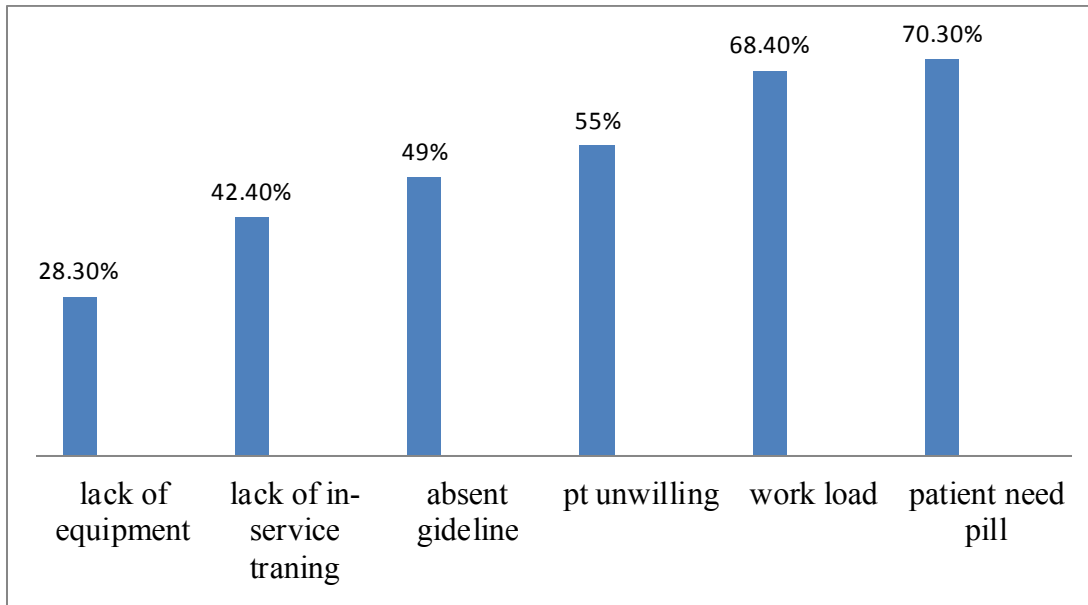


Figure 5: barriers to use of non-pharmacological pain management methods in Tikur Anbessa hospital, Ethiopia, 2017

5.7 factors associated with non-pharmacological pain management knowledge

5.7.1 Bivariate analysis on factors associated with non-pharmacological pain management knowledge

Crude analysis on binary logistic regression showed that non-pharmacological pain management use about non-pharmacological method was significantly associated with nurses knowledge on non-pharmacological pain management method at p value <0.05 (Table 4)

The study also showed that nurses which did not use non-pharmacological method half times less likely in non-pharmacological pain management knowledge than those which use non-pharmacological method (COR =0.434(95% CI (0.257, 0.734)) (Table 4).

5.7.2 Bivariate analysis on factors associated with non-pharmacological pain management attitude

Crude analysis on binary logistic regression showed that non-pharmacological pain management did not generally significantly associated with nurses attitude on non-pharmacological pain management method at p value <0.05 (**Table 5**)

5.7.3 bivariate analysis on factors associated with non-pharmacological pain management practice

Crude analysis on binary logistic regression showed that age, non-pharmacological pain management education, and attitude about non-pharmacological method were all significantly associated with general non-pharmacological pain management practice at p value <0.05 (**Table 6**). On the other hand, sex, level of education, work experience, family/patient need pill and knowledge about non-pharmacological method did not show statistical association with non-pharmacological pain management practice at p value <0.05 (**Table 6**). Individual with age >31 years old were half times less likely to have associated with non-pharmacological pain management practice than <31 years old nurses (COR=0.411 (95% CI (0.244,0.69)). The study also showed that nurses did not in-service training class two times more likely than non-pharmacological class (in-service training) (COR =1.789(95% CI (1.054,3.039)) (**Table 6**).

Also the study showed that nurses who have good attitude about non-pharmacological pain management two times more likely in non-pharmacological pain management practice than nurses who have poor attitude about non-pharmacological pain management (COR=1.708(95% CI (1.029,2.835)) (**Table 6**).

5.7.4. Multivariate analysis on factors associated with non-pharmacological pain management knowledge

Regarding multivariate analysis on factors associated with non-pharmacological pain management knowledge, use of non-pharmacological pain management shows statically significant. On the other hand, age, work experience, level of education and in-service training did not show statically significant at p value <0.05 (**Table 4**).

Also the study showed that those nurses who were not use non-pharmacological pain management half times less likely in non-pharmacological pain management knowledge than nurses who use non-pharmacological pain management method (AOR=0.448(95% CI(0.262,0.765))(Table4).

5.7.5 Multivariate analysis on factors associated with non-pharmacological pain management attitude

Adjusted odd ratio showed that non-pharmacological pain management did not generally significantly associated with nurses attitude on non-pharmacological pain management method at p value <0.05 (Table 5)

5.7.6 Multivariate analysis on factors associated with non-pharmacological pain management practice

Regarding multivariate analysis on factors associated with non-pharmacological pain management practices, age, in-service training (non-pharmacological pain management education and patient need pill about non-pharmacological pain management were shows statically significant. On the other hand, level education, work experience, attitude and nurse knowledge did not show statically significant at p value <0.05 (Table 6). Also the study showed that those nurses who were not get in-service training (non-pharmacological pain management education) two more likely in non-pharmacological pain management practice than nurses who get in-service training (non-pharmacological pain management education) (AOR=2.173(95% CI(1.21,3.903)) and Nurses who had family or patient need pill was barrier two times more likely who have not barrier (AOR=1.832(1.017,3.3)) Individual with age >31 years old were half times less likely to have associated with non-pharmacological pain management practice than <31 years old nurses (AOR=0.348(95% CI (0.188,0.643)).

Table 4: factors associated with non-pharmacological pain management knowledge of nurses in TikurAnbessa, hospital, Ethiopia, 2017

Characteristics	Non-pharmacological pain management knowledge		Crude OR (95 % CI)	Adjusted OR (95% CI
	Poor (%)	Good (%)		
Sex				
Male	58(21.6%)	67(24.9%)	1	1
Female	71(26.4%)	73(27.1%)	1.124(0.695,1.815)	1.128(0.687,1.852)
Age				
<31year	82(30.5%)	91(33.8%)	1	1
>31year	47(17.5%)	49(18.2%)	1.064(0.648,1.756)	0.901(0.51,1.595)
Work experience				
0-9 year	122(45.4%)	135(50.2%)	1	1
10-19 year	7(2.6%)	5(1.9%)	1.549(0.479,5.009)	1.356(0.372,4.95)
Level of education				
Diploma, BSc	113(42.2%)	128(47.8%)	1	1
Masters, PhD	15(5.6%)	12(4.5%)	1.416(0.636,3.152)	1.451(0.614,3.425)
use non-pharmacological pain management method				
yes	98(36.4%)	81(30.1%)	1	1
no	31(11.5%)	59(21.9%)	0.434(0.257,0.734)*	0.448(0.262,0.765)
In-service training				
Yes	44(16.4%)	39(14.5%)	1	1
No	85(31.6%)	101(37.5%)	0.746(0.444,1.253)	0.857(0.496,1.483)

*Statistically associated at $p < 0.05$

** Statistically associated at p value non-pharmacological use (0.003)

Table 5: factors associated with non-pharmacological pain management attitude of nurses in TikurAnbessa, hospital, Ethiopia, 2017

Characteristics	Non-pharmacological pain management attitude		Crude OR (95 % CI)	Adjusted OR (95% CI)
	Poor (%)	Good(%)		
Sex				
Male	78(29%)	125(46.5%)	1	1
Female	98(36.4%)	46(17.1%)	1.284(0.776,2.124)	1.288(0.771,2.151)
Age				
<31 year	113(42%)	60(22.3%)	1	1
>31 year	63(23.4%)	33(12.3%)	1.014(0.6,1.713)	0.934(0.518,1.683)
Level of education				
Diploma ,BSc	156(58.2%)	85(31.7%)	1	1
Masters , PhD	19(7.1%)	8(3%)	1.294(0.544,3.08)	1.331(0.529,3.351)
Work experience				
0-9 year	167(62.1%)	90(33.5%)	1	1
10-19year	9(3.3%)	3(1.1%)	1.617(0.427,6.122)	1.5(0.363,6.192)
In-service training				
Yes	59(21.9%)	24(8.9%)	1	1
no	117(43.5%)	69(25.7%)	0.69(0.394,1.208)	0.735(0.411,1.314)

* Statistically associated at p value<0.05

Table 6: factors associated with non-pharmacological pain management practices of nurses in TikurAnbessa, hospital, Ethiopia, 2017

Characteristics	Non-pharmacological pain management practice		Crude OR (95 % CI)	Adjusted OR (95% CI)
	Poor (%)	Good (%)		
Sex				
Male	55(20.4%)	70(26%)	1	1
Female	72(26.8%)	72(26.8%)	1.273(0.787,2.059)	1.52(0.683,1.942)
Age				
<31 year	95(35.3%)	78(29%)	1	1
>31	32(11.9%)	64(23.8%)	0.411(0.244,0.69)*	0.348(0.188,0.643)*
Level of education				
Diploma, BSc	116(43.3%)	125(46.6%)	1	1
Masters, PhD	11(4.1%)	16(6%)	0.741(0.33,1.662)	1.283(0.527,3.122)
Work experience				
0-9 year				
10-19 year	101(37%)	88(32.7%)	1	1
	23(8.6%)	45(16.7%)	0.358(0.095,1.351)	0.524(0.123,2.231)
Non-pharmacological education				
Yes	31(11.5%)	52(19.3%)	1	1
No	96(35.7%)	90(33.5%)	1.789(1.054,3.039)	2.173(1.21,3.903)*
Knowledge				
Poor	60(22.3%)	69(25.7%)	1	1
Good	67(24.9%)	73(27.1%)	1.055(0.654,1.704)	1.307(0.76,2.249)
Attitude				
Poor	75(27.9%)	101(37.5%)	1	1
Good	52(19.3%)	41(15.2%)	1.708(1.029,2.835)*	0.624(0.357,1.092)
Family/patient need pill				
Yes	95(35.3%)	94(34.9%)	1	1
No	32(11.9%)	48(17.8%)	0.66(0.388,1.121)	1.832(1.017,3.3)*
Work load				
Yes	87(32.3%)	97(36.1%)	0.991(0.592,1.659)	1
No	40(14.9%)	45(16.7%)		1.193(0.679,2.098)

*Statistically associated at $p < 0.05$

** Statistically associated at p value attitude (0.038), in-service training (0.007) and patient need pill (0.044)

6. Discussion

The aim of this study was to assess the knowledge; attitude and practice of nurses who are working in patient ward and associated factors on non-pharmacological pain management.

The current study found that about 52% of respondents had good knowledge. This finding is consistent with the study done in west gojjam zone, Ethiopia, 2014(51.7%) (12), however, this finding is low as compared with study done in Makkah EI-Mukarramah, 2013 (87.5%) (15). This difference could be due to differences in technological advancement, curriculum regarding non-pharmacological pain management.

The study revealed that about 65.4% had negative attitude regarding non-pharmacological pain management. This finding is relatively comparable with study done in west gojjam zone, Ethiopia, 2014 show that positive attitude (12), however, this finding is as compared with study done in Makkah EI-Mukarramah 2013 show that positive attitude (15) . This may be due to high perception of pharmacological pain management method and use different scoring system.

The study revealed that about 52.8% had good non-pharmacological pain management practice. About 78.1% heat application practice, 74.3% cold application practice, 64.3% massage and 50.2% position change practice. This good non-pharmacological pain management practice among nurses in the study area might be due to in-service training and good knowledge about non-pharmacological pain management method, this finding is similar with study done in Makkah EI-Mukarramah, and 2013 satisfactory level (15) . However, this finding is incongruent relatively comparable with study done in west gojjam zone, Ethiopia, 2014 show that unsatisfactory level (12), this may be due to knowledge, information about non-pharmacological pain management method. The study also showed that nurses whose non-pharmacological class (in-service training) two times more likely than did not in-service training class. This finding is similar with study done in west gojjam zone, Ethiopia 2014.

Individual with age >31 years old were half times less likely to have associated with non-pharmacological pain management practice than <31 years old nurses. Also the study showed that those nurses who were not get in-service training (non-pharmacological pain management education) two times more likely in non-pharmacological pain management practice than nurses who get in-service training (non-pharmacological pain management education and Nurses who had family or patient need pill was barrier two times more likely who have not barrier.

Also the study showed that nurses who have positive attitude about non-pharmacological pain management two times more likely in non-pharmacological pain management practice than nurses who have negative attitude about non-pharmacological pain management

Barrier regarding non-pharmacological pain management practice the largest barrier list by participant was family/patient need pill (70.3%), work load (68.4%), patient unwilling (55%) and absence guide line (49.4%). The study was congruent with the study (12) reported as the work load the largest barrier work load (38.6%) to non-pharmacological pain management practice. Other study (15) reported as long time need was the largest barrier to non-pharmacological pain management practice.

7. Conclusion

It can be concluded from the present study that knowledge, attitude and practice of non-pharmacological pain management among nurses in the study area was poor of all study subjects, 48% had poor knowledge about non-pharmacological pain management method, 65.4% negative attitude on non-pharmacological pain management method and 47.2% had poor non-pharmacological pain management practice. Nurses who had use Non-pharmacological pain management method was significantly associated with nurses knowledge on non-pharmacological pain management method at p value<0.05

All socio-demographic characteristics did not significantly associated with nurses attitude on non-pharmacological pain management method at p value <0.05.

Age, in-service training and family/patient need pill about non-pharmacological pain management were significantly associated with non-pharmacological pain management practice at p value <0.05.

8. Strength and limitation of the study

8.1. Strength of the study

- Sample size was high (approximately close with total number of nurses)
- Most of the non-pharmacological pain management barrier were assessed in this study
- The response rate was 99.6%.

8.2. Limitation of the study

- The cross-sectional study design makes determining causality impossible.
- Pain assessment tools were not assessed.
- The study was conducted in a single setting
- Qualitative data collection method was not used.

9. Recommendation

On the basis of the findings of this study, the following recommendations are proposed

- Encourage nurses to educate patient about benefits of non-pharmacological pain management
- Tikur Anbessa hospital encourage nurses for in-service training program to enhance nurses competence on pain management
- Tikur Anbessa hospital prepare pain assessment tool and increase number of nurses
- Further study should be in other hospital and qualitative method should be use
- Higher educational organization should be review the curriculum for preparation of nursing student in non-pharmacological pain management method

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ANNEX

Annex I: participant Information Sheet

How are you? My name is _____ and I am a graduate student at Addis Ababa University, college of health science department of Nursing and Midwifery. You are selected to be a participant of the study of nurse knowledge, attitude and practice on non-pharmacological pain management in adult patient and you are select by chance. You will participate if you give me consent after you have understood the following information sheet:

What the study is about: The purpose of this study is to assess nurse knowledge, attitude and practice regarding non-pharmacological pain management for adult patient.

Study Design: institutional based cross-sectional study on nurse knowledge, attitude and practice of non-pharmacological pain management in adult patient

What I will ask you to do: If you agree to participate in this study, I will conduct an interview with you. The interview will include questions about your socio demographic characteristic and your management method for adult patient with pain. I would very much appreciate your participation in this study.

Risks and benefits: there is no payment and risk or discomfort you should fear as a result of participating in this study except that you lost time spent for interview.

Confidentiality; All information given by you will be kept confidential. Any of your personal information will not register.

If you have questions: If you have questions regarding this study, you can contact the principal investigator and if you need to clarify the question you can ask me at any time of the interview

Address of the principal investigator

NAME: sewunetsisay

PHONE: +251924137853

E-MAIL: sisaysewunet@gmail.

Annex II. Consent Form

The researcher explained the aim of the study with clear language that I can decide once I understand the objective of the study. I decided:

1. Agree to participate [] _____signature, continue

2. Not agree to participate (stop here); thank you very much!

If the study subject agrees to participate in the study, start the interview.

Interviewer signature certifying that informed consent has been given verbally by the respondent.

NB: No need of enforcing the respondent to be included in the study

Data collectors name _____ Signature _____ Date __/__/__

Annex III: Questionnaire, English Version

Addis Ababa University; College of Health Science; School of Public Health

English Version Questionnaire for nurses. It is a standardized questionnaire

Answer the following questions by putting alternative by using circle their number

Identification number of participants (code) _____

<u>Section I: Socio-Demographic Characteristics of the Participants</u>			
S.No	Questions	Coding Categories	
101	Sex	Male.....1 Female.....2	
102	Age in years	20or below.....1 21-29.....2 30-39.....3 40-49.....4 50-59.....5 60or above.....6	
103	What is your Marital status	Married1 Single.....2 Divorced.....3 Widowed.....4	
104	What is your Level of education	Diploma.....1 Baccalaureate....2 Master's.....3 PhD.....4	
105	Work experience in year	0-91 10-19.....2 20-29.....3 30-39.....4 40 or above.....5	

106	Have you had any class in non-pharmacological pain management in either nursing school?Or continuing education since after graduation?	YES.....1 No2	
107	If you answered YES to number 106 about how many hours did you have?	0- 5hr.....1 5-1 hr.2 10-15 hr.....3 15hr or above4	
108	If you answered YES to number 106, when did you attain this education?	In nursing practice since after graduation.....1 In formal nursing school education.....2	
109	If you answered NO to number106 do you wish had more education involving non-Pharmacological pain management?	Yes.....1 No.....2	
110	Is there a pain assessment tool available for evaluating patient's pain on your unit?	Yes.....1 No.....2	
111	If you answered YES to number 110, do you use the tool?	Yes.....1 No.....2	if yes, which tools you used
112	Have you ever used non pharmacological pain management method?	Yes.....1 No.....2	
113	If you answered YES to number 112, what are they?	Position change.....1 Massage2 Distraction.....3 Heat/cold.....4	Others, what? Please list

		Reassurances.....5	
114	How often do you use any of the above method?	Every day.....1 At least 3 times a week.....2 Once a week.....3 Once every other week.....4 once a month.....5 Never.....6	

Section II: knowledge question for non-pharmacological pain management

201	Provide a suitable room temperature and good air condition can relieve pain	True.....1 False2	
202	Provide the patient with a possibility to rest by minimizing noise can relieve pain	True.....1 False2	
203	Including family members in the pain management regimen can increase patient's ability to manage pain.	True.....1 False2	
204	Use of non -pharmacological pain management method has no value to the patient	True.....1 False2	
205	Try to focus a patient's thoughts/ attention away from pain can decrease pain	True.....1 False2	
206	Asking the patient to suggest ways to relive his/her pain can increase patient's ability to manage pain	True.....1 False2	
207	Patients who can be distracted from pain usually do not have severe pain	True.....1 False2	

208	Non drug interventions (e.g. distraction, heat, music, imagery etc.) are effective only for mild pain control	True.....1 False2	
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Section III: Attitude questions

301	Do you think that non- pharmacological method should be given to sick people?	Agree.....1 Disagree.....2	
302	Do you think that information on issues related to non -pharmacological methods should be given for patient's family?	Agree.....1 Disagree.....2	
303	Are you willing to provide information on issues related to non-pharmacological methods to sick people?	Agree.....1 Disagree.....2	
304	Are you willing to provide non pharmacological methods to people who have pain?	Agree.....1 Disagree.....2	
305	Do you agree with that, patient should be advised to use non pharmacological means with pain medications?	Agree.....1 Disagree.....2	
306	Do you think that preparing a patient carefully for a procedure by telling him/her about what will be done can decrease pain?	Agree.....1 Disagree.....2	
307	Are you willing to encourage the patient to think about / imagine pleasant and positive matter when she/he feels pain?	Agree.....1 Disagree.....2	
308	Do you agree with that, teaching the patient the correct breathing technique can relieve his/her pain?	Agree.....1 Disagree.....2	
309	Do you encourage the patient by rewarding her/him verbally when he/ she feel pain?	Agree.....1 Disagree.....2	
310	Do you think that encourage the patient to relax different parts of his/ her body can relieve the sensation of pain?	Agree.....1 Disagree.....2	

311	Do you think that interior decoration of the unit affects patient's ability to manage pain?	Agree.....1 Disagree.....2	
312	Are you willing to encouraging family members to bring some of the patient's belong to the unit	Agree.....1 Disagree.....2	

Section IV: practice questions Also **circle** one of the alternatives 1-5 in the open-

ended question (other, what).Reply alternatives

1= not at all 3= sometimes 5 = always

2 = very seldom 4 = nearly always

401	I use thermal regulation as a method of pain relief	1,2,3,4,5	
402	I use cold application to relive pain	1,2,3,4,5	
403	I use heat application to relive pain	1,2,3,4,5	
404	I use massage to relive pain	1,2,3,4,5	
405	I spend time with the patient when s/he feels pain	1,2,3,4,5	
406	I relieve the patient's pain by position changes	1,2,3,4,5	
407	I use touching as a method of pain relief	1,2,3,4,5	
408	I use breathing techniqueto relive pain	1,2,3,4,5	

Section V: What are the barriers that prevent you from using non-pharmacological methods?

501	Patient related barrier	Patient unwilling.....1 Family/ patient need pill3 Lack Patient/family Awareness.....4	Others, what? Please list
502	Organizational related barrier	Inadequate or absent of guideline.....1 Nurse patient ratio/workload.....2 Lack of facilitation in-service training program.....3 Lack of equipment.....4	Others, what? Please list

Annex V: የስምምነት መግለጫ ፎርም - በአማርኛ

ተመራማሪው /ዋ የጥናቱን ዓላማ በሚገባ እና ግልጽ በሆነ ቋንቋ አስረድተው ኛል። በዚህም መሠረት የጥናቱን ዓላማ ስለተረዳሁለሁ መሳተፍ ወሳኔ የሚከተለው መንገድ አረጋግጣለሁ።

- 1. አዎን እሳተፋለሁ። [] _____ ፊርማ፣ ይቀጥሉ
- 2. አልስማማም/ አልሳተፍም :: [] (አመስግነው በዚህ ያብቁ)

ተጠያቂው ለመሳተፍ ፈቃደኛ ከሆኑ መጠይቁን ጀምር

የመረጃ ሰብሳቢ ፊርማ ተጠያቂው በቃል ስምምነት መስጠቱን ያረጋግጣል።

አስታውስ፡ ተጠያቂው በግድ በጥናቱ እንድሳተፍ አያስገድዱ።

የመረጃ ሰብሳቢ ስም _____ ፊርማ _____ ቀን
____/____/____

Annex VI: መጠይቅ በአማርኛ

የቃለ መጠይቁ መለያ: _____

ትዛዝ:- መጠይቁ 5 ክፍሎችን የያዘ ሲሆን በትእዛዙ መሰረት እባክዎ መልስ ወንክፊ ለፊት ያለውን ቁጥር ያክቡ

ክፍል 1:- የስነ ሕዝብ ማህበራዊ ጉዳዮች

ተራ ቁጥር	ጥያቄ	መልስ	ይለፍ
101	ጾታ	ወንድ.....1 ሴት.....2	
102	እድሜ	20 ዓመት ወይም በታች.....1 20-29 ዓመት.....2 30-39 ዓመት.....3 40-49 ዓመት.....4 50-59 ዓመት.....5 60 ዓመት ወይም በላይ.....6	
103	የጋብቻ ሁኔታ	ያገባች.....1 ያላገባች.....2 የፈታች.....3 የሞተች በት/ባት.....4	
104	የት/ት ደረጃ	ዲፕሎማ.....1 ዲግሪ.....2 ማስተርስ.....3 ፒኤችዲ.....4	
105	ለምን ያህል ጊዜ ሰረተዋል (በዓመት)	0-91 10-19.....2 20-29.....3 30-39.....4 40 ወይም በላይ5	

106	ህመምን ያለ መድሃኒት ስለማካምበት ምህርት-ቤት ቆይታ ወይም ከተመረቁ በኋላ ተምረው ያውቃሉ?	አዎ አይደለም
107	ለተራቁጥር 106 መልስዎ አዎ ከሆነ ለምን ያህል ሰዓት ተማሩ?	0-5 ሰዓት 5-10 ሰዓት 10-15 ሰዓት ከ 15 ሰዓት በላይ
108	ለተራቁጥር 106 መልስዎ አዎ ከሆነ መቼ ነው የተማሩት?	ከ ምርቃን በኋላ በስራ ላይ በነርስት ምህርት-ቤት ቆይታ
109	ለተራቁጥር 106 መልስዎ አይደለም ከሆነ ህመምን ያለ መድሃኒት ስለማስታገስ ዘዴዎች መማር ይፈልጋሉ?	አዎ አይደለም
110	በምትሰሩበት/ሪበት ክፍል ውስጥ ህመም መኖሩን ለመለየት የሚያገለግሉ መሣሪያዎች አሉ?	አዎ አይደለም
111	ለተራቁጥር 110 መልስዎ አዎ ከሆነ መሣሪያውን ይጠቀሙበታል?	አዎ አይደለም
112	ህመማችንን ያለ መድሃኒት የማከሚያ ዘዴዎችን ተጠቅመው ያውቃሉ?	አዎ አይደለም
113	ለተራቁጥር 112 መልስዎ አዎ ከሆነ ምን ምን ናቸው? አባክዎ የሚጠቀሙቸውን ፊልፊት ያለውን ቁጥር በማክበብ ይመልሱ::	ህመማችንን ማግለበጥ ማሸት ሀሳብን መበተን መቀት/ቀዝቃዜን መጠቀም ህመማችንን በማጽናናት
114	ከላይ በተራቁጥር 113 የተዘረዘሩትን ምን ያህል ጊዜ ይጠቀማሉ?	ሁል ጊዜ ቢያንስ በሳምንት 3 በሳምንት 1 ጊዜ በየሁለት ቀን

		በወርአንዴ..... መቼምተጠቅሜአላውቅም.
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ክፍል 2 እውቀትን የሚመዘኑ መጠይቆች

201	ምቹ ሙቀት እና የአየር ጸባይ ህመምን ያስታግሳሉ?
202	ህሙማንን ጸጥታ በሰፊ ነበት ቦታ እንዲያርፉ ማድረግ ህመማቸውን ያስታግስላቸዋል?
203	ሕመምን በማከምፕ ሮግራም ውስጥ የቤተሰብ አባላትን ማሳተፍ የሕሙማንን የህመም መቆጣጠር አቅም ይጨምራል
204	ሕመምን ያለ መድሐኒት ማከም ማስታገስ ለሕሙማን ምንም አይነት ጠቀሜታ የለውም::
205	ህሙማንን ስለ ህመማቸው እንዳያስቡ ማድረግ የህመሙን ስሜት ይቀንሳል::
206	ህሙማንን ስለ ህመማቸው የማስታገሻ መንገዶች መጠየቅ የህሙማንን ህመም የመቆጣጠር ችሎታ ይጨምራል
207	የህሙማንን ሐሳብ በተለያዩ መንገዶች ስለ ህመሙ እንዳያስቡ ማድረግ ከፍተኛ የህመም ስሜት እንዳይሰማቸው ያደርጋል
208	ያለ መድኃኒት ህመምን ማከሚያ ዘዴዎች ማለት ምን ያህል ሙቀት፣ ሙዚቃ ምሳሌዎች የሚጠቅሙት መካከል ርዥ ሕመምን ብቻ ለማከም ነው::

ክፍል 3 አመለካከትን የሚመዘኑ መጠይቆች

301	ህመምን ያለ መድኃኒት የማከሚያ ዘዴዎች ለህሙማን መሰጠት አለባቸው ብለው ያስባሉ?	አዎ.....1 አይደለም.....	
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	2	
302	ህመምን ያለመድሃኒት የማስታገሻ የማከሚያ ዘዴዎች ጋር የተያያዙ መረጃዎችን ለህመምን ቤተሰቦች መሰጠት አለባቸው ብለው ያስባሉ?	አዎ1 አይደለም2	
303	ስለህመም ያለመድሃኒት ማስታገሻ ዘዴዎች ለህመምን መረጃ ለመስጠት ፍቃድ ጥያቄዎች?	አዎ1 አይደለም2	
304	ህመምን የሚሰማቸውን የህመም ስሜት ያለመድኃኒት ለማክም ፍቃድ ጥያቄዎች?	አዎ1 አይደለም2	
305	ህመምን መድሃኒት እና ያለመድሃኒት ማስታገሻ ዘዴዎችን ባንድ ላይ እንዲጠቀሙ የምክር አገልግሎት መሰጠት አለበት ብሎ ሚሊውሀሳብ ይስማማሉ?	አዎ1 አይደለም2	
306	ህመምን ስለሚሰጣቸው የህክምና ዘዴዎች ቀድመን መንገድ ርዕዮሚሰማቸውን የህመም ስሜት ይቀንስ ላቸዋል ብለው ያስባሉ?	አዎ1 አይደለም2	
307	ህመምን ህመም ሲሰማቸው የተለያዩ የደስታ ምንጮች ና አዎንታዊ ነገሮች እንዲሰጡ ህመምንን ለማበረታታት ፈቃድ ጥያቄዎች?	አዎ1 አይደለም2	
308	ህመምን ስለትክክለኛ ያተነፋ ፈሰስ ልትማስተማር ህመምን ሊቀስ ይችላል ብሎ ሚሊውሀሳብ ይስማማሉ?	አዎ1 አይደለም2	

309	ህመምን ህመም በሚሰማቸው ጊዜ በፊት የሰሩትን መልካም ስራዎች በቃላት በማንሳት በማሞገስ ህመምንን ያበረታታሉ?	አዎ1 አይደለም2	
310	ህመምን የተለያዩ የሰውነት ክፍሎችን ዝና እንዲያደርጉ ማበረታታት የህመም ስሜትን ይቀንሳል ብለው ያስባሉ?	አዎ1 አይደለም2	
311	የመኝታ ክፍሎችን በቀለም፣ በመብራትና በተለያዩ ቁሳቁሶች ማስዋቀር የህመም መቆጣጠር አቅም ላይ ተፅኖ አላቸው ብለው ያስባሉ?	አዎ1 አይደለም2	
312	የህመምን ቤተሰቦች የተለያዩ ቁሳቁሶችን ማለት ምስዕለት ችግር እና ትራስ ለበሽተኛው እንዲያቀበሉ ያበረታታሉ?	አዎ1 አይደለም2	

ክፍል 4.

አጠቃቀምን የሚመዘኑ መጠይቆች፡፡ የሚከተሉት አርፋተኝ ገጽ ህመምን ያለ መድሀኒት የማስታገሻ ዘዴዎችን የያዙ ሲሆኑ ከተሰጡት የመልስ አመራሮች መካከል የአርስ ምንድን ርጊት ሊገልፅ የሚችለውን በማክበብ ይመልሱ፡፡

- 1 = መቼም ተጠቅሟል ላይ ቅም 3 = አልፎ አልፎ እጠቀማለሁ
- 2 = እብዛም አልጠቀም 4 = አብዛኛውን ጊዜ እጠቀማለሁ
- 5 = ሁል ጊዜ እጠቀማለሁ

401	ህመምን ለማስታገስ የሙቀት ማስተካከያን አጠቀማለሁ፡፡	1 2 3 4 5	
402	ህመምን ለማስታገስ ቅዝቃዜን እጠቀማለሁ፡፡	1 2 3 4 5	
403	እኔ ህመምን ለማስታገስ ሙቀትን እጠቀማለሁ፡፡	1 2 3 4 5	
404	ማሸትን ህመምን ለማስታገስ እጠቀማለሁ፡፡	1 2 3 4 5	
405	ህመምን ህመም በሚሰማቸው ጊዜ ከጎናቸው በመሆን አሳልፋለሁ	1 2 3 4 5	
406	ህመምንን በማገልበጥ ህመምን አስታግሳለሁ፡፡	1 2 3 4 5	

407	መንካትን እንደህመም ማስታገሻነት እጠቀማለሁ።	1 2 3 4 5	
408	ህመሙን እንዲተናፍሱ በማድረግ ህመምን አስታግሳለሁ።	1 2 3 4 5	

ክፍል 5. ህመምን ያለመዳህኒት የማስሚያ ዘዴዎችን ላለመጠቀም የሚያግዱ ምክንያቶች ምንድን ናቸው?

50 1	የህሙማንን ተደግጦ	የህሙማ ነፍታ ደኛ ስለመሆን.....1 የቤተሰብ ወይም የህሙማ ነገር ድህነት ስለመፈሰግ.....2 የህሙማ ነገር ስለመሰከት ስለመሆን.....3
50 2	የሙስሪያቤት ተደግጦ	የተመዘገበ የጋራ የሆነ የሚያደርግ ስለመሆን.....1 የጊዜ ስጥረት ወይም የሙስሪያቤት ጥቅም.....2 ህሙማን ያለመድሃኒት ስለሚሰጥ ምን ገደብ ስለሚኖረው ማረጋገጥ.....3 የሙስሪያቤት ጥቅም.....4

THANK YOU!!!

Assurance of principal investigator

Declaration:

I, the undersigned, declare that this is my original work and has not presented in this or any other university and all sources of materials used for this Thesis have been fully acknowledged.

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