ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES SCHOOL OF MEDICINE DEPARTEMENT OF FAMILY MEDICINE

Knowledge Attitude and Practice towards total pain assessment among Health Professionals Providing Palliative Care Service at TikurAnbessa Specialized Hospital, Addis Ababa, Ethiopia

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ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES, SCHOOL OF MEDICINE, DEPARTEMENT OF FAMILY MEDICINE

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS TOTAL PAIN ASSESSMENT AMONG HEALTH PROFESSIONALS PROVIDING PALLIATIVE CARE SERVICE AT TIKUR ANBESSA SPECIALIZED HOSPITAL ADDIS ABABA, ETHIOPIA

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STATEMENT OF DECLARATION

I ,the under signed hereby declare that this research entitled ‘‘Knowledge, Attitude , and Practice towards total pain assessment among health professionals providing palliative care service at Tikur Anbessa Specialized Hospital , Addis Ababa , Ethiopia’’is my own original work and I have not submitted this research in any other institution for any other diploma or degree . I have referenced all the sources I used in this document and the materials incorporated have been acknowledged.

Name	Signature	Date
Amelework Worku	_____	_____

Aknowledgements

My heartfelt thanks first and foremost goes to Almighty GOD for making me complete this research and then to AAU,CHS,school of medicine department of family medicine that gave me the opportunity to do this research,to my advisor Dr. Eden Habtemariam for her support and guidance and to TASH palliative care unit health professionals who were very cooperative in the data collection process and contributed kindly without reservation for completion of this research, and to all of whom who helped me to conduct this research.

List of abbreviations

AAU----------Addis Ababa University

CHS----------College of Health Science

FMOH----------Federal Ministry Of Health

GC----------Gregorian Calendar

IASP----------International Association for Study of pain

ICU----------Intensive Care Unit

IQR----------Inter Quartile Range

KASRP----------Knowledge and Attitude Survey Regarding Pain

MCQ----------Multiple Choice Question

MDT----------Multi Disciplinary Team

MOH----------Ministry of Health

NPRS----------Neumeric Pain Rating Scale

PRN----------"Pro Re Nata "

TASH----------Tikur Anbessa Specialized Hospital

VAS----------Visual Analogue Scale

VRS----------Verbal Rating Scale

WHO----------World Health Organization

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Abstract

Back ground; The concept of total pain assessment entails assessment of physical, psychosocial, and spiritual pain in patients suffering from life threatening and serious illnesses. It is crucial to assess pain holistically to alleviate pain and suffering to increase quality of life. The aim of this study was to assess the practical implementation of total pain assessment.

Objective; To assess knowledge, attitude and practice towards total pain assessment among health professionals providing palliative care service, in Tikur Anbessa Specialized Hospital, Addis Ababa.

Methods; A cross sectional study was done in Tikur Anbessa Specialized Hospital palliative care unit from September to October 2025.Sample size of 69 calculated using single population formula, data was collected using self-administered questionnaire, data was cleaned, and entered using SPSS version 26. Data analysis was done with descriptive statistics using frequencies, percentages and mean. Association between the dependent and independent variables was determined using odds ratio at 95% level of confidence interval and P value 0.05 for significance.

Result; 63 participants out of 69 with response rate of 91.3% participated in the study. 46(73%) were nurses and 17(27%) residents.38 (60.31%), 25(39.68%), and 30(47.6%) have adequate knowledge, favorable attitude and good practice respectively. Being a nurse was associated with unfavorable attitude with adjusted odds ratio of 0.004(0.005, 0.382) and p value 0.002.

Conclusions and recommendations; This study showed health professionals working at palliative care unit in Tikur Anbessa specialized hospital have adequate knowledge, but unfavorable attitude, and poor practice , it is recommended to give proper training and developing guide lines and protocols to assess pain holistically in palliative care unit of TASH.

1. Introduction

1.1. Back ground

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage as defined by the International Association for the Study of pain (IASP)(1).The IASP also classifies pain as acute, which lasts for short time and chronic lasting more than 3 month which passed healing time(2).The treatment approach also differs (2).The term total pain refers to pain perception not only as a physical pain but that it has psychological, spiritual and social consequences(1).

Pain is the most prevalent symptom among cancer patients receiving palliative care .Around 50%-60 % of patients with cancer suffer from pain. Uncontrolled pain triggers physiological stress response, causes emotional and social distress and decreases quality of life of patients which is described as total pain(3).Hence goals of pain management in cancer patients includes relieving physical pain and also restoring physical, emotional and social function(3,4) .

Different Studies show poor knowledge and attitude towards cancer pain and its treatment among health professionals, patients, and family(5).Among health professionals there are misconceptions regarding cancer pain assessment and management. Many health professionals believe that patients exaggerate their pain, and many believe opioids and other analgesics used for cancer pain treatment cause tolerance and addiction(6). There was also gap in knowledge of health professionals regarding pharmacology of common analgesics used for cancer pain treatment and pain assessment in pediatrics(6).

Health professionals especially nurses and residents spend most of the time with patients, so assessing their knowledge ,attitude and practice towards pain assessment is critical for effective pain relief(2) .Proper pain management requires adequate knowledge and positive attitude of health professionals(7).However , many studies show low score of health professionals on important aspects of pain management, including initial pain assessment, treatment, reassessment and knowledge regarding pharmacology of analgesic drugs like narcotics(7).These findings from other studies indicate the need for assessing health professionals knowledge, attitude and practice towards pain assessment(7).

Thus the main aim of this study is to assess knowledge, attitude and practice of health professionals providing palliative care service towards total pain assessment at Tikur Anbessa Specialized Hospital, Addis Ababa Ethiopia.

1.2. Statement of the problem

Health care providers play pivotal role in pain assessment and management but pain assessment and management is inadequate in Ethiopia(8).Factors like inadequate resources, lack of proper training, cultural influences ,language barriers ,emotional and physical factors has been the reason for unaddressed and under treated pain(8).In any health care system pain management practices were influenced by three major barriers: organizational barrier, health care provider related barrier and patient related barrier which lead to inadequate pain assessment and management resulting in under treatment of pain and suffering(8,9) .

In developing countries like Ethiopia ,incidence of pain is increasing which could be attributed to later diagnosis and barriers related to opioid access(8).In palliative care setting where patients are suffering from life threatening illness, proper pain assessment and its treatment are under appreciated(8).Different researches done in developing countries show inconsistent practice levels towards pain management among health professionals(8).

In Ethiopia , there are different initiatives taken to increase pain management practice including pain is the fifth vital sign, multi-disciplinary team involvement for pain management and initiation of palliative care service(8).In spite of this ,pain assessment and treatment practice is still unacceptably low and neglected in developing countries like Ethiopia(8).

Because pain is subjective, its evaluation should be done using standard tools developed for pain assessment; the Numeric Scale (NRS), and Visual Analogue Scale (VAS) are easy for use in adults who are able to communicate while the FLACC scale and FACE scale can be used in infants and children respectively(4,9).However, different studies show almost half of the physicians use none of the mentioned tools, while small number of physicians ever use pain management guidelines(9).

In light of this, this study tries to assess the knowledge, attitude and practice of health professionals and identify gaps in knowledge ,attitude and practice among health professionals providing palliative care service for improved pain assessment and management.

1.3. Significance of the study

There is no research done in the area previously, so the results of this study will serve as base line, for researchers who want to do their research on the field in the future. The results of this research will point gaps in knowledge, attitude and practice of residents and nurses providing palliative care services at Tikur Anbessa Specialized Hospital, so that responsible bodies like the department of family medicine, or Tikur Anbessa hospital management or other stake holders like MOH will take the necessary steps to fill the observed gaps, and to enhance knowledge, attitude and practice of health professionals in the area,

As the aim of this study is to point gaps in knowledge and attitude of health professionals, the result can be helpful to decrease pain and suffering of patients and their families and care givers by improved application and use of pain assessment and management guide line at the facility.

2. Literature review

2.1. Knowledge of health professionals providing palliative care service towards pain assessment in patients with life threatening illness

A cross sectional study done to assess Doctors' knowledge and attitudes on pain assessment and Management in Malaysia showed there was low level of knowledge and attitude about pain. From 278 participants 116(41.7%) scored less than 60 % on knowledge questions. By gender, male doctors were had higher score than the female doctors on knowledge questions. By department, department of Anesthesia scored the highest mean score (80.2%). Work experience affects level of knowledge in the study with doctors working above 5 years scored highest(10).

A cross sectional study done in Iran about chronic pain Management among health care workers, showed scores of 51.23% ± 9.02% ,and 36.10% ± 7.31% (P <0.001) for residents and nurses respectively. The mean score was 43.13%±11.10.No significant relationship observed between field of specialty and the mean scores of medical residents. The highest scores(57.32%) were for non-narcotic drug questions and the lowest scores (39.02%) were for narcotic drug questions(6).

Descriptive cross sectional study done among Sudanese pediatric residents on pain assessment and management in children, Seventy percent had never received any kind of training, education, or learning sessions in paediatric pain assessment and management, 60% were not aware of any pain assessment tool. One third thought opioids are contraindicated for chronic pain relief in children, because addiction would occur after short use(11).

Cross sectional study done at Gondar comprehensive specialized referral hospital, on nurses knowledge and attitude towards pain management showed the level of good knowledge towards pain management to be 66.9% .The mean score was 7.14 (1.74 SD)(12).

Cross sectional study done on assessment of knowledge, attitude and practice of nurses towards pain management in adult critically ill patients in Addis Ababa federal hospitals, showed knowledge level to be 64.9%.Factors related with knowledge level were ;work load (AOR, 8.8, CI 95%, 1.45-53.39),ICU related training (AOR, 10.8, CI95%, 1.07-109.42), reading guidelines (AOR, 10.11, CI95%, 1.36-75.22), and educational level (AOR, 16.38, CI95%, 1.02-261.9)(13).

2.2. Attitude of health professionals providing palliative care service towards pain assessment in patients with life threatening illnesses

A descriptive cross sectional study done in Uganda on nurses' knowledge, attitude and practices regarding pain assessment among patients with cancer showed attitude level of 9 out of 12 indicating favorable attitude towards pain assessment and management (14).

A cross sectional study done on knowledge and attitude towards pain management among Nurses in Gondar university hospital, showed the level of attitude to be 51.7% with mean score of 49.33(7.13 SD). The study concluded nurses had good knowledge and unfavorable attitude and recommended education and quality improving interventions to increase knowledge and attitude in the area(12).

A quantitative cross sectional study done on healthcare providers' knowledge, attitude, practice and associated factors towards pain management at Debremarkos referral hospital, showed that 51.3% of the study participants had unfavorable attitude. Compared by profession, Anaesthetists had the most favorable attitude followed by physicians. (85.3%) of the study participants strongly agreed pain is a priority problem, and (71.5%) participants strongly agreed PRN based pain management is important(15).

2.3. Practice of health professionals providing palliative care service towards pain assessment in patients with life threatening illnesses

A cross sectional research done in west bank Palestine among ICU nurses managing critically ill patients showed poor level of practice, with lack of proper opioid prescription 79.6 % were reluctant to prescribe opioids for pain treatment, and the control over use of opioids was very high (77.5%).In this study participants said that that they evaluate each of the step of their pain management practice in the rounds they do. (16).

A study done in India on assessment of adequacy of pain management and analgesic use in advanced cancer ,they observed inadequate pain management in majority (77%) of patients and proper use of opioids was not implemented in any of the patients with control over strong opioid prescription(17).

A cross sectional study done on Knowledge, Practice and Factors Associated with Pain Management for Adult Critical Ill Patients Among Nurses Working in Federal Hospitals of Addis Ababa Ethiopia, showed the level of good practice was 56.5% . Factors associated with good practice in the study were ICU related training ((AOR, 19.95, CI95%, 3.03-130.9), as well as knowledge level ((AOR, 5.30, CI95%; 1.3-21.68).The study concluded that since good level of knowledge and training related to ICU had association with good practice, giving training and preparing guidelines recommended for good pain management in the study population (13).

2.4. Conceptual frame work

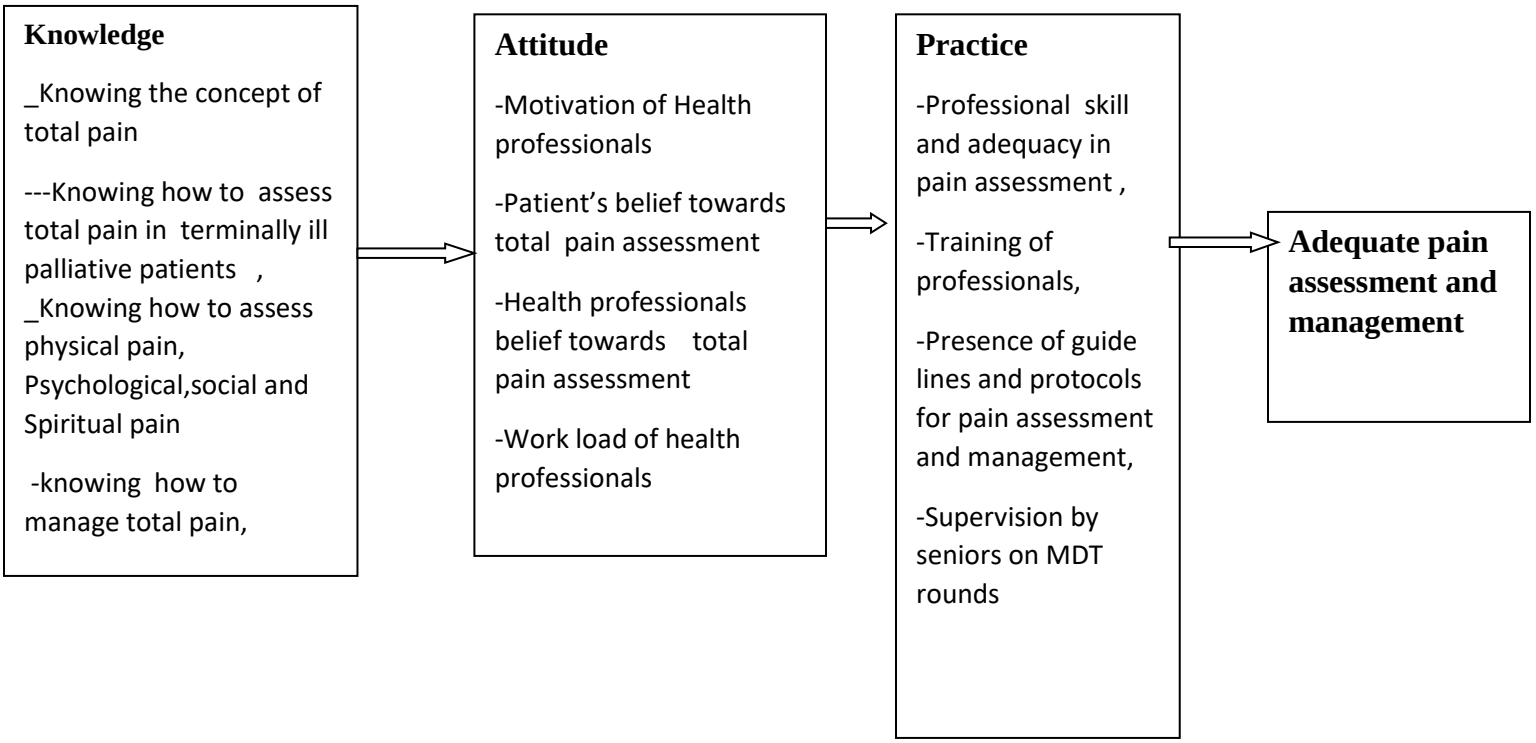

Figure1. Conceptual frame work

3. Objectives

3.1. General objective

To assess knowledge, attitude and practice of health professionals providing palliative care towards total pain assessment

3.2. Specific objectives

To evaluate knowledge of health professionals providing palliative care towards total pain assessment
To determine attitude of health professionals providing palliative care towards total pain assessment
To determine practice of health professionals providing palliative care towards total pain assessment

4. Methods and materials

4.1. Study area

The study was conducted at Addis Ababa University, College of Health Sciences, TASH. The college offers 8 under graduate and above 70 post graduate programs. Tikur Anbessa Specialized Hospital is teaching hospital of the college and is the largest specialized referral hospital in Ethiopia. It has over 700 beds, and trains under graduate and post graduate students. It started providing service since 1974 GC.and was transferred to the school of medicine by the federal Ministry of Health in 1998. GC.TASH gives service to about 500,000 patients in the outpatient, 50,000 in patient and 40,000 emergency department patients annually. TASH gives palliative care within its oncology department, working in collaboration with departments like family medicine. The palliative care unit offers palliative care services including 6 beds dedicated to this purpose. The palliative care unit also has a large staff, with more than 70 nurses and residents involved in care of terminally ill patients requiring in patient management at the palliative care unit of TASH.

4.2. Study period

The study was conducted from September to October 2025

4.3. Study design

Cross sectional study design was used

4.4. Source and study population

4.4.1. Source population

All health care providers providing palliative care service at Tikur Anbessa Specialized Hospital.

4.4.2. Study population

All health care providers providing palliative care service that participated in the study during the study period.

4.5. Inclusion and exclusion criteria

4.5.1 Inclusion criteria

All health care providers providing palliative care service and give consent to participate in the study

4.5.2. Exclusion criteria

Family medicine seniors are excluded from the study.

4.6. Sample size determination and sampling technique

Sample size was calculated using formula for single population proportion

$$n_1 == \frac{(Z\ \alpha/2)^2 \times p\ (1-p)}{d^2}$$

Where n_1= sample size$_1$,

Z α/2=confidence level at 95%=1.96

p=prevalence

d=margin of error=5%

The proportion of health care providers who had adequate knowledge, favorable attitude and good practice was taken from study done in Amhara region Gojam, Debremarkos hospital Ethiopia (15). In that study the prevalence was 46.7%,48.7%,and 22.5% respectively.

$$N(1)= \frac{(1.96)^2(0.467)(1-0.467)}{(0.05)^2} =382$$

$$N(2)=\frac{(1.96)^2(0.487)(1-0.487)}{(0.05)^2} = 383$$

$$N(3)=\frac{(1.96)^2(0.225)(1-0.225)}{(0.05)^2} =267$$

The largest sample size was 383 and was used to calculate the final sample size. Since the total population (health professionals working in Palliative care unit in Tikur Anbessa Specialized Hospital) was 76 which is less than 10,000, correction formula was used,

$n_2=1+n_1/N =1+383/76$

where n_2= final sample size,

n_1= initial sample size

N=total population

Adding 10 % for non-response rate the final sample size was 69

Simple random sampling technique was used

4.7. Data collection process

Self administered questionnier adopted from literature review ,the FMOH Ethiopian palliative care guide line, the WHO guide line on pain assessment,and KASRP (Knowledge and Attitude Survey Regarding Pain) includes part 1; Socio demographic variables such age,sex,educational

level, work experience, year of residency part 2; contains knowledge questions which are true or false questions and part 3; contains attitude questions, which are true or false questions ; part 4 contains practice questions towards pain assessment for health professionals which a likert scale answers showing frequency; always, often, sometimes and never. The questionnaire was distributed to respondents in person and collected by the principal investigator.

4.8. Study variables

4.8.1. Dependent variable

Knowledge towards total pain assessment, attitude towards total pain assessment and practice towards total pain assessment

4.8.2. Independent variables

Age, gender, educational level, work experience, year of residency, receiving training, work load, reading guide lines

4.9. Data quality assurance

Data quality was ensured during data collection, coding, entry and analysis. The questionnaire was checked by the principal investigator for its completeness and accuracy to assure the quality .The Principal investigator was responsible for supervision and on reviewing questionnaire.

4.10 .Data analysis

Data was entered and cleaned using SPSS version 26. Descriptive statstics was used with frequency tables and percentages and measures of central tendency and the summarized data was presented by tables, graphs and figures. Associations between dependent and independent variables was measured using bi variable and multi variable logistic regression analysis. Factors that showed association at P value <0.05 on bivariate analysis were entered in to multivariate logistic regression analysis with P value <0.05 taken as statistically significant.

4.12. Operational definitions

Adequate knowledge; Knowledge of health professionals when they scored mean value and above
Inadequate knowledge; Knowledge of health professionals when they scored less than the mean value
Favorable attitude; Attitude of health professionals when they scored mean value and above.
Unfavorable attitude - Attitude of health professionals when they scored less than the mean value.
Good practice –Practice of health professionals when they scored mean value and above.
Poor practice – Practice of health professionals when they scored less than the mean value.
Total pain assessment; Health professionals' holistic evaluation of patients with life threatening illness for physical, psychosocial, and spiritual pain.
Health professionals providing palliative care service; Nurses and residents working in palliative care unit, of TASH.

4.13. Ethical consideration

Ethical clearance was obtained from Addis Ababa University College of health sciences department of Family medicine. Formal letter was obtained from Family medicine department and provided to palliative care unit of Tikur Anbessa specialized hospital .Participants of the study were informed about their confidentiality, and their consent was sought. Respondents were told about the aim of the study and the information needed from them. Signed written Informed consent was obtained from participants. Personal information of study participants was kept anonymous, and the collected data was used only for the purpose of the study.

4.14. Dissemination plan of the result

The findings of this research will serve as baseline for further intervention by different concerned bodies. The final research paper will be submitted to Addis Ababa University, School of

Medicine, department of Family medicine .The findings can be presented for different teaching activities and seminars and it may be published in scientific journals.

5. Result

5.1. Socio Demographic characterstics

63 out of total sample size of 69 health professionals participated in the study with response rate of 91.3%. Among the study participants, 46 (73%) were nurses and 17(27%) were residents. 28 (44.4%) were male and 35(55.6%) were female. The mean age was 27.70 (SD± 4.35) and age range of 22-43. 69.8% have less than 5years of experience and 30.2 % have more than 5 years of work experience .By education level, 42 (66.7%)were BSC nurses,4 (6.3 %) masters nurses. Among the residents 6 (9.5%) Were first year residents, 6(9.5%) second year and 5(7.9%) third year residents.

Table 1.Socio demographic characteristics of health professionals providing palliative care service at TASH, 2025 (N=63)

Variable	Frequency	Percent
Age		
Lower than 25	24	38.1
25-30	26	41.3
31-40	12	19.0
41 and above	1	1.6
Sex		
Male	28	44.4
Female	35	55.6
Marital status		
Single	45	71.4
Married	16	25.4
Divorced	1	1.6
Widowed	1	1.6
Education level		
BSC nurse	42	66.7
Master nurse	4	6.3
First year resident	6	9.5
Second year resident	6	9.5
Third year resident	5	7.9

5.2. Knowledge of health professionals providing palliative care service towards total pain assessment

Among the 12 questions used to assess knowledge, the maximum score was 12 and the minimum was 4 with mean score of 8.73 (SD + 1.547) and mean percentage of 72.75%.38(60.31%) study participants have adequate knowledge and 25 (39.68%) have inadequate knowledge. Among residents, 14 (82.35%) have adequate knowledge while 3 (17.64 %) have inadequate knowledge. Among nurses 24(52.17%) have adequate knowledge while 22(47.82%) have inadequate knowledge .The best judge of patients pain intensity is the patient, is the most answered question, while, nonsteroidal anti-inflammatory agents and asprin are not effective for painful bone metastases and oral route is the preferred rout of administration of opioid analgesic for persistent cancer related pain, are the least answered questions.

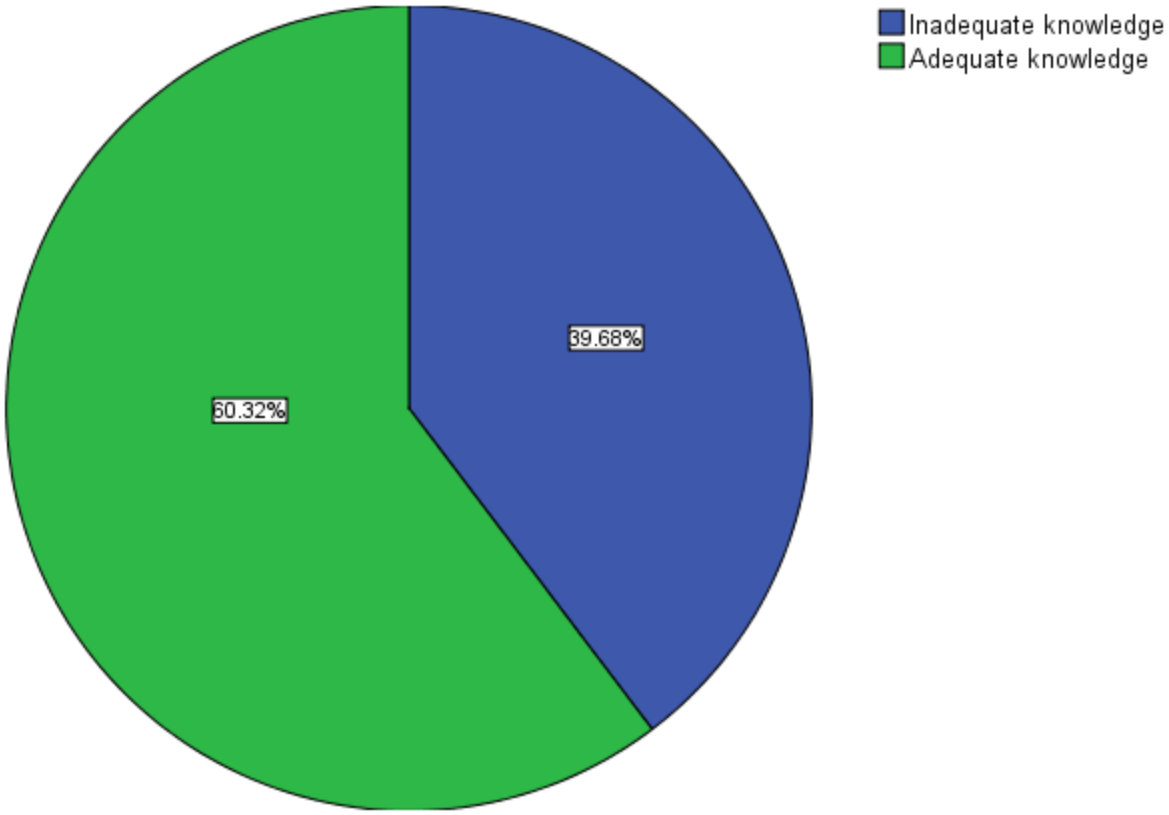

Figure2;Total study participants based on their level of knowledge towards total pain assessment at TASH, 2025(N=63)

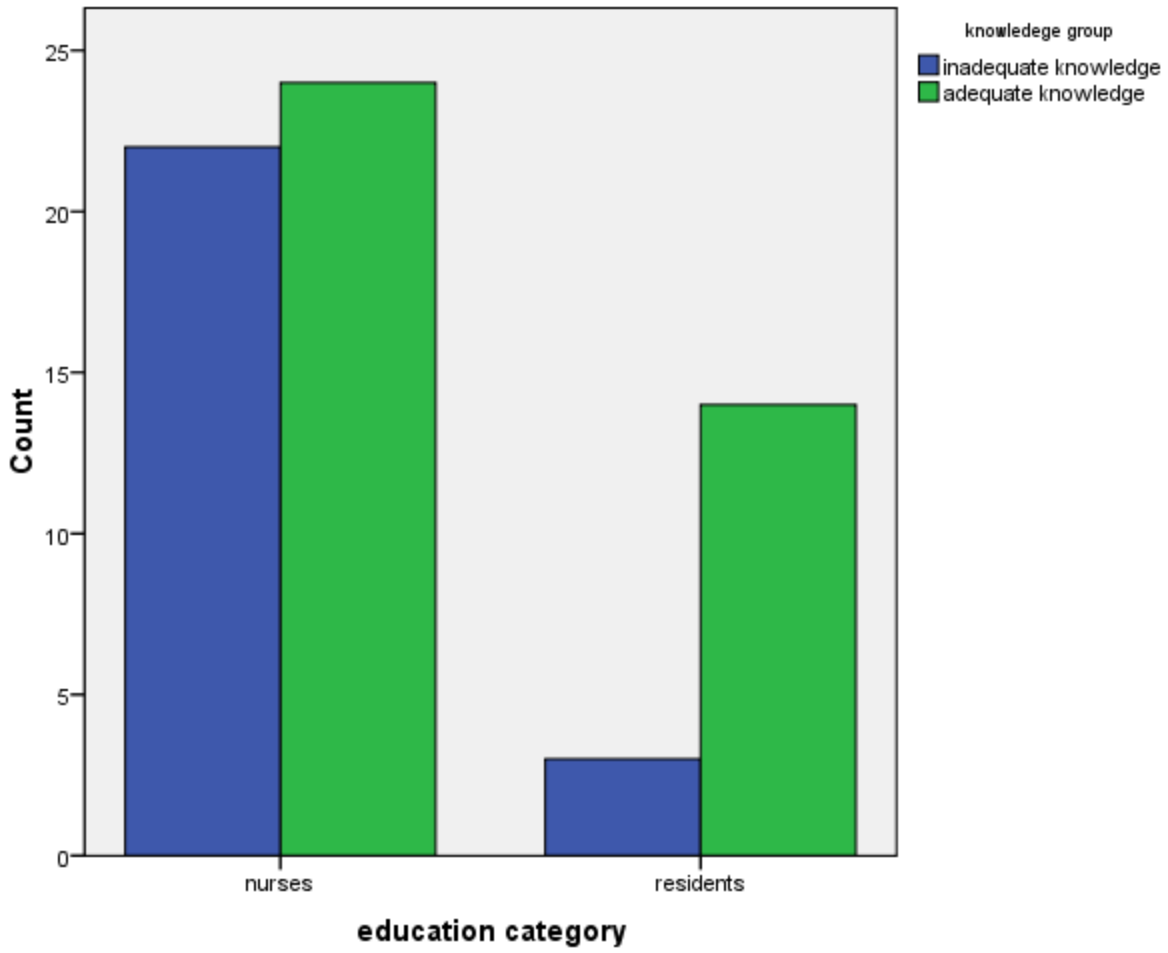

Figure 3.Knowledge towards total pain assessment among health professionals providing palliative care service by profession, at TASH,(N=63)

Table 2, Knowledge questions answered by participants of the study for assessment of knowledge towards total pain assessment among health professionals providing palliative care service at TASH, 2025 (N=63)

Question	Response	Frequency	Percent
The best judge of intensity of the patient's pain is the patient.	True	55	87.30%
Oral route is the recommended route of opioid analgesics administration for persistent cancer related pain.	True	30	47.61%
Patients with chronic pain need higher dosages of pain medications than patients with acute pain.	True	46	73.01%
Spiritual beliefs of the patient may lead them to think pain and suffering are necessary.	True	49	77.77%
Analgesics working by different mechanisms may result in better pain relief and fewer side effects when combined, than using single analgesic agent.	True	52	82.53%
Nonsteroidal anti inflammatory agents and aspirin are not effective for painful bone metastases	False	28	44.44%
Distracting patients with music or relaxation can decrease pain perception.	True	52	82.53%
Since children less than 11 years old cannot reliably report pain, clinicians should rely solely on parents' assessment of the child's pain.	False	40	63.49%
Equianalgesia means approximately equal analgesia and is used when referring to the doses of various analgesics that provide approximately the same amount of pain relief.	True	53	84.12%
In patients' receiving stable doses of opioid over period of months, respiratory depression rarely occurs.	True	47	74.60%
Patients should be individually assessed to determine cultural influences on pain	True	53	84.12%
For continuous pain, giving narcotics on	True	37	58.73%

a regular schedule is preferred over ‘’p.r.n’’ schedule,			

5.3. Factors associated with knowledge of total pain assessment among health professionals

Binary logistic regression was done.On univariable regression, there was significant association between profession and having adequate knowledge on total pain assessment, with being a nurse associated with inadequate knowledge on total pain assessment by odds ratio 0.234(0.0059,0.924) , but up on multi variable regression , there was no significant association .

Table 3.Factors associated with knowledge towards total pain assessment among health professionals providing palliative care service at TASH ,(n=63)

Variable		Adequate knowledge n(%)	Inadequate knowledge(n)%	P-value	Crude OR(95% C.I)	Adjusted OR(95%CI)
Age	≤25 years	13(45.8%)	11(54.2%)	0.435	0.662(0.235,1.864)	
	≥26 years	25(35.9%)	14(64.1%)		1	
Sex	Male	17(60.7%)	11(39.3%)	0.954	1.030(0.373,2.846)	
	Female	21(60.0%)	14(40.0%)		1	
Marital status	Single	24(53.3%)	21(46.7%)		0.327(0.093,1.147)	
	Married	14(77.8%)	4(22.2%)	0.081	1	
Profession	Nurse	24(52.2%)	22(47.8%)	0.038	**0.234(0.059,0.924)**	0.121(0.013,1.114
	Resident	14(82.4%)	3(17.6%)		1	1
Work experience	<5 years	26(59.1%)	18(40.9%)	0.762	0.843(0.278,2.554)	
	>5 years	12(63.2%)	7(36.8%)		1	
Have you ever had	yes	18(58.1%)	13(41.9%)	0.719	0.831(0.302,2.282)	

training on pain assessment	no	20(62.5%)	12(37.5%)		1	
How many patients you see/ attend to daily	10-15	19(57.6%)	14(42.4%)	0.376	0.509(0.114,2.27)	
	15-20	4(57.1%)	3(42.9%)	0.497	0.500(0.068,3.696)	
	20-30	7(58.3%)	5(41.7%)	0.472	0.525(0.091,3.034)	
	>30	8(72.7%)	3(27.3%)		1	

5.4. Attitude of health professionals providing palliative care service towards total pain assessment

In this study, participants scored maximum score of 8 and minimum score of 2 out of 9 questions. The mean score was 5.10 (SD± 1.214) with mean percentage of 56.66%.Of 63 participants,25 (39.68%) have favorable attitude while 38(60.32%) have unfavorable attitude towards total pain assessment in palliative care.

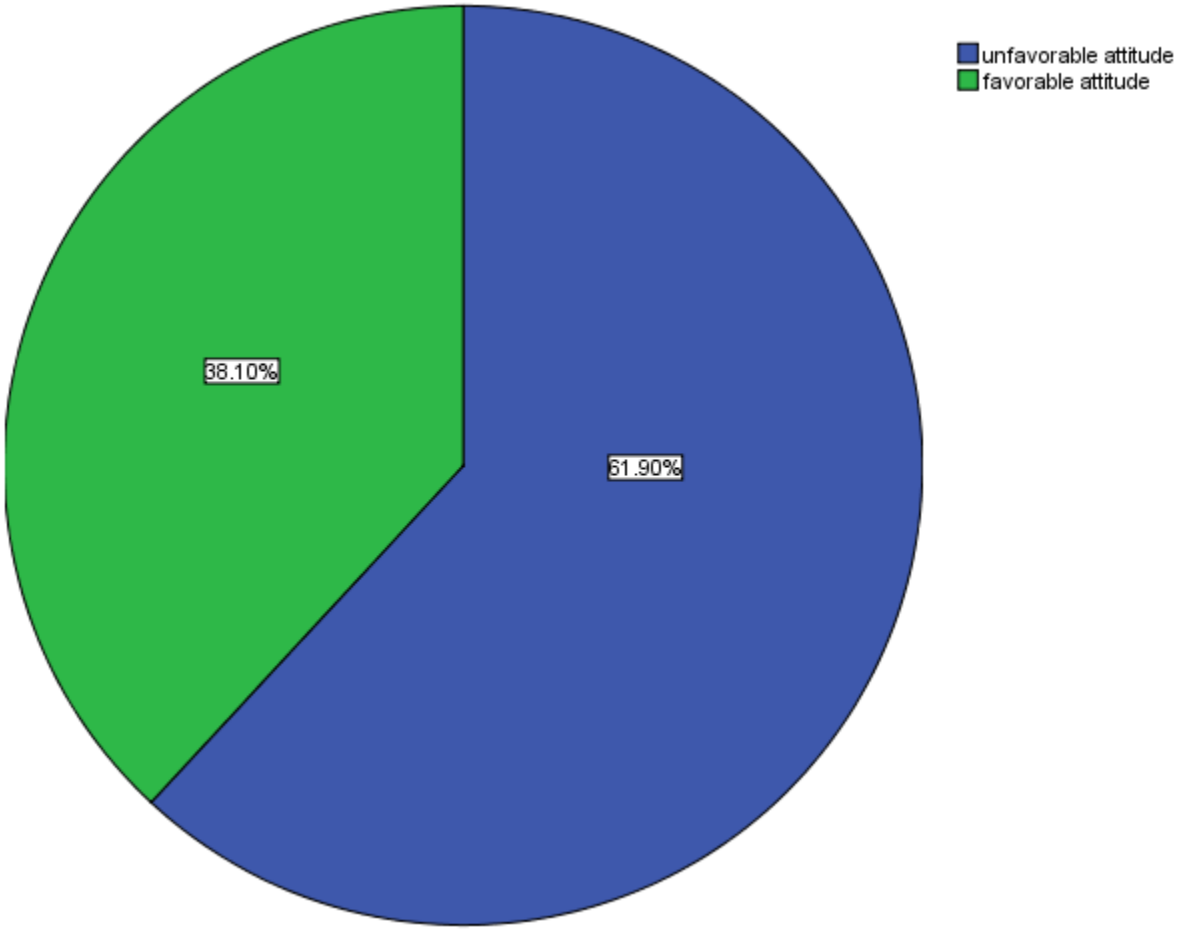

Figure4.Attitude towards total pain assessment among health professionals providing palliative care service at TASH, 2025

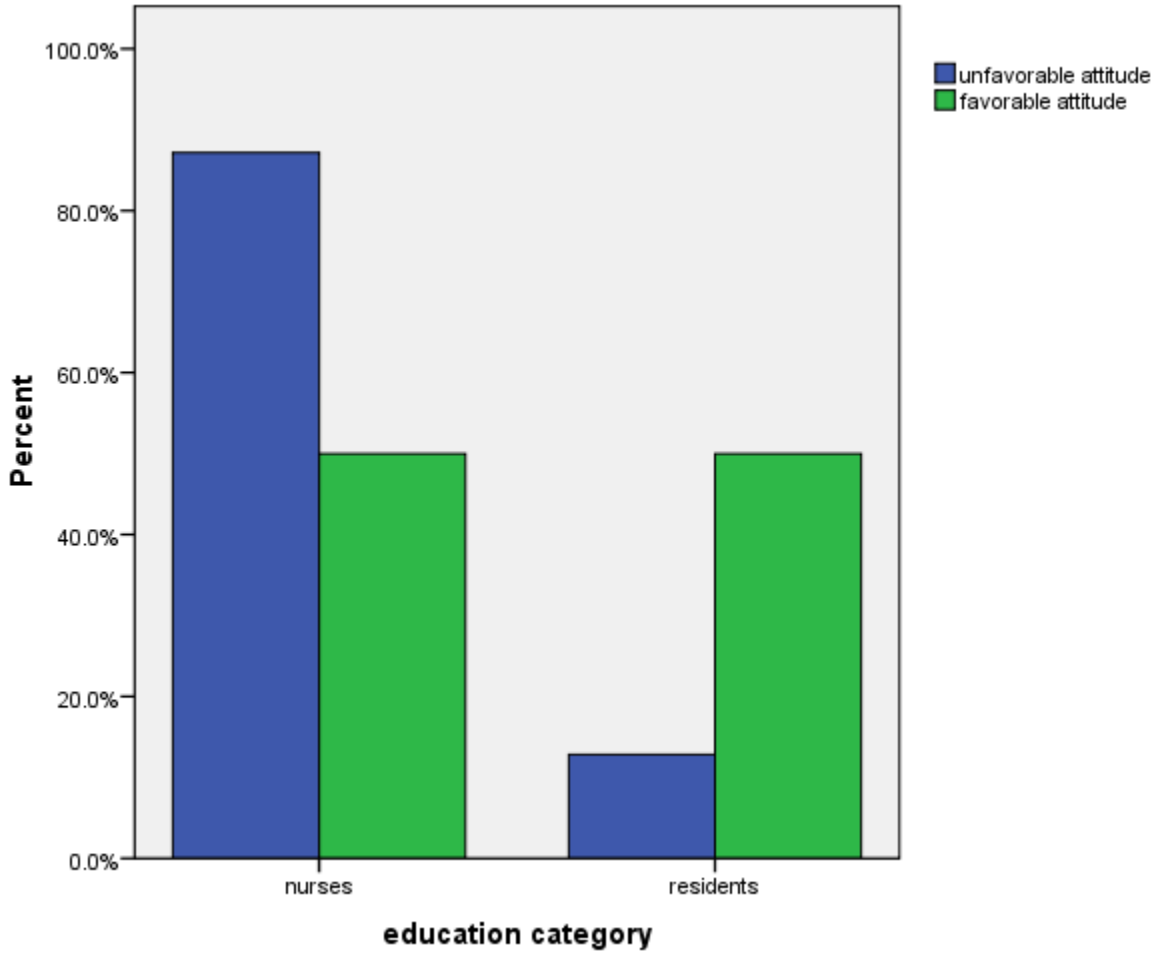

Figure 5.Attitude towards total pain assessment among health professionals providing palliative care service by profession at TASH, 2025

5.5. Factors associated with attitude of health professionals towards total pain assessment

Binary logistic regression was done to assess predictors of attitude of health professionals towards total pain assessment . On univariable regression analysis being a nurse as compared to being a resident ,has association with unfavorable attitude by odds ratio of 0.147 , on multivariable regression analysis the association was significant by an odds ratio of 0.044 times. None of the other variables are significantly associated with attitude of participants in this study

Table 4. Factors associated with attitude towards total pain assessment among health professionals providing palliative care service at TASH, 2025(n=63)

Variable		Favorable attitude	Unfavorable attitude	p-value	Crude OR(95%CI)	Adjusted OR
Age	≤25 years	8(33.3%)	16(66.7%)	0.542	0.719(0.249,2.078)	
	≥26 years	16(41.0%)	23(59.0%)		1	
Sex	Male	11(39.3%)	17(60.7%)	0.862	1.095(0.394,3.044)	
	Female	13(37.1%)	22(62.9%)		1	
Marital status	Single	18(40.0	27(60.0%)	0.623	1.333(0.423,4.199	
	Married	6(33.3%	12(66.7%)		1	
Profession	Nurse	12(26.1%)	34(73.9%)	0.002	**0.147(0.043,0.505)**	**0.044(0.005,0.382)**
	Resident	12(70.6%)	5(29.4%)		1	1
experience	<5 years	17(38.6%)	27(61.4%)	0.893	1.079(0.355,3.283)	
	>5 years	7(36.8%)	12(63.2%)		1	
Have you ever had training on pain assessment ?	Yes	11(35.5%)	20(64.5%)	0.675	0.804(0.290,2.228)	
	No	13(40.6%)	19(59.4%)			
How many patients you see/ attend to daily	10-15	14(42.4%	19(57.6%)	0.376	1.965(0.440,8.769)	
	15-20	2(28.6%)	5(71.4%)	0.952	1.067(0.129,8.793)	
	20-30	5(41.7%)	7(58.3%)	0.472	1.905(0.330,11.009)	
	>30	3(27.3%)	8(72.7%)		1	

5.6. Practice of health professionals providing palliative care service towards total pain assessment

Out of 63 participants in the study 30 (47.6%) have good practice, while 33(52.4%) have poor practice. Among study participants 29(46.03%) ,36(57.14%)and 33 (52.38%) never use the psychosocial assessment tools PHQ9 and GAD 7 and spiritual assessment tool(HOPE) respectively.

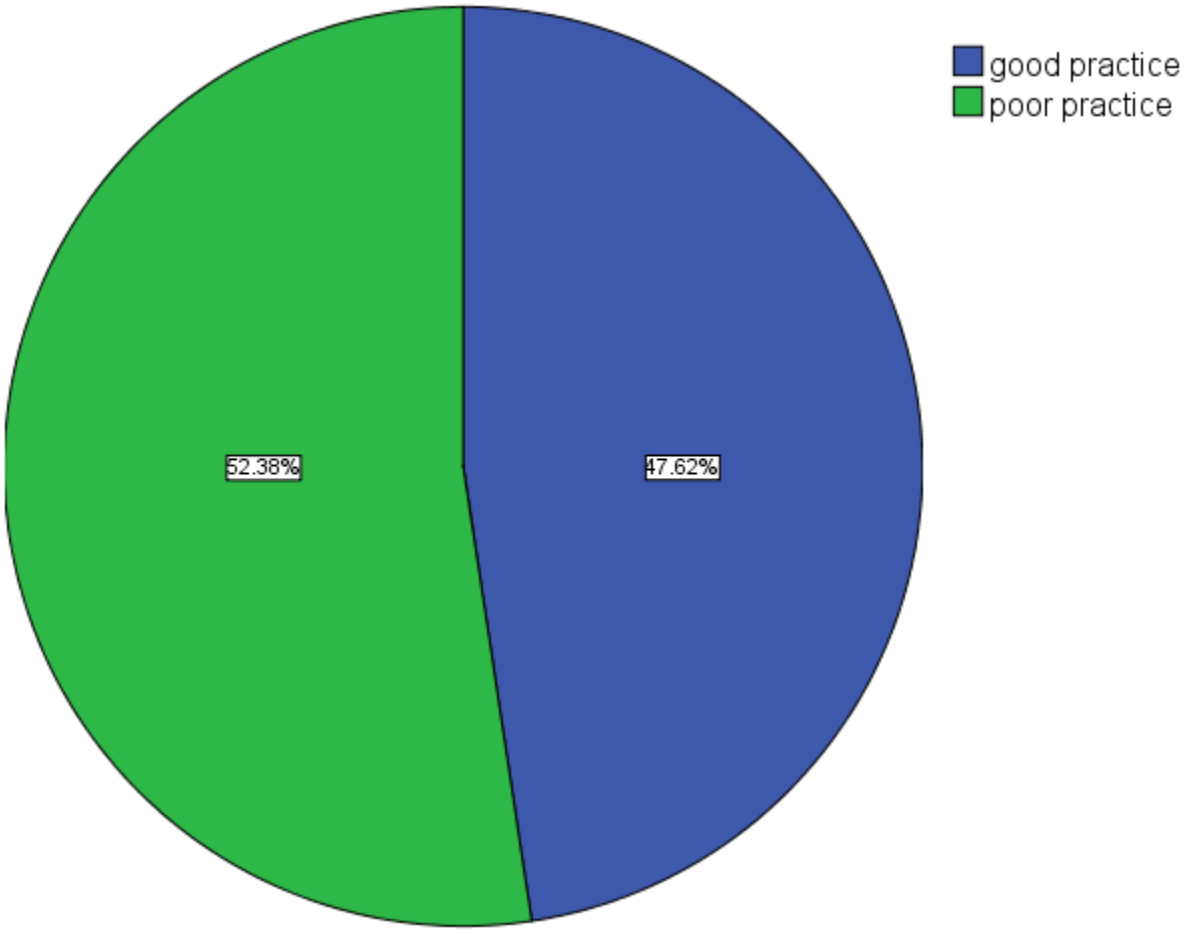

Figure 6.Practice towards total pain assessment among health professionals providing palliative care service at,TASH (n=63)

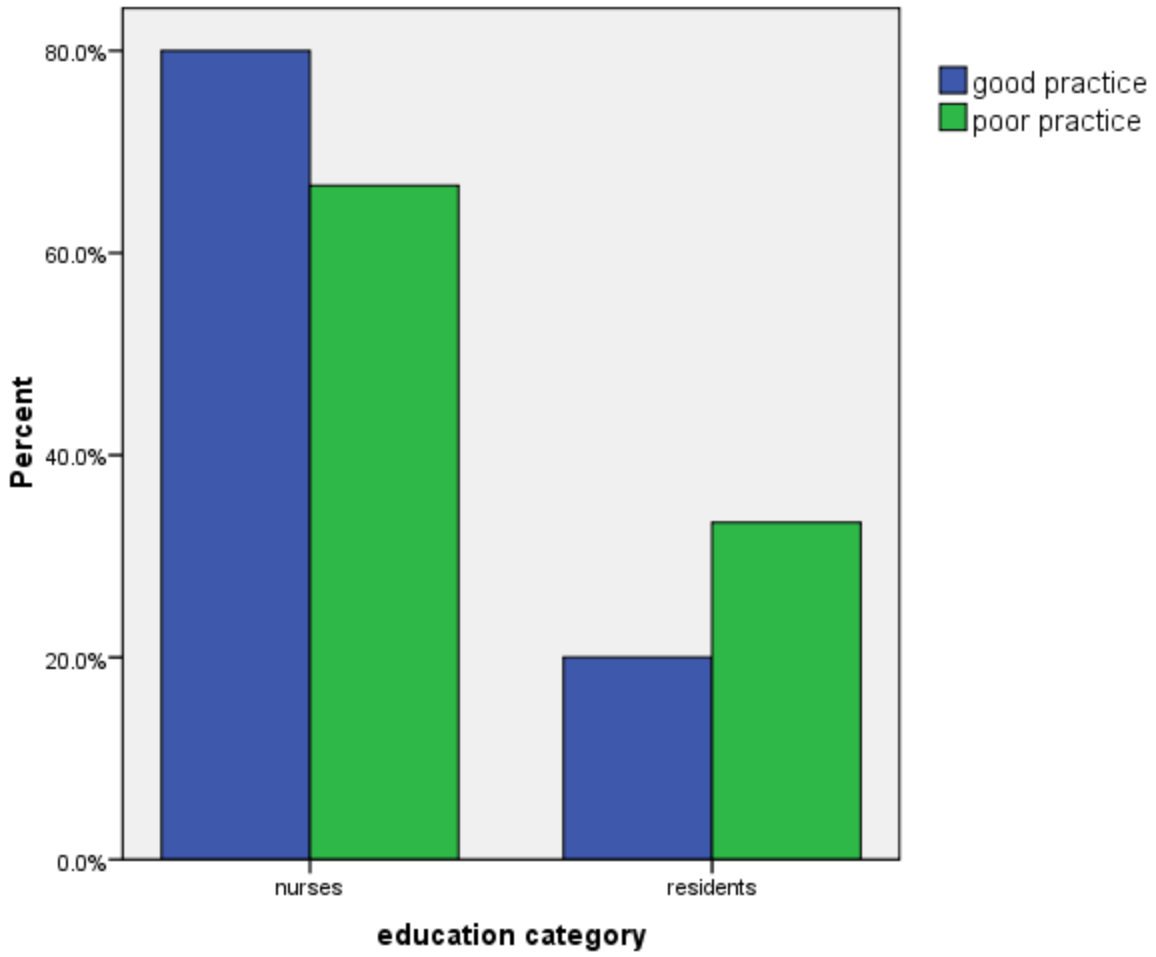

Figure 7.Practice towards total pain assessment among health professionals providing palliative care service by profession 2025, TASH (n=63)

5.7. Factors associated with practice of health professionals towards total pain assessment

On multivariable logistic regression analysis, there was no significant association between the dependent and independent variables.

Table 5.Factors associated with practice towards total pain assessment among health professionals providing palliative care service working at ,TASH (n=63)

Variable		Good practice	Poor practice	P-Value	Crude OR (95%CI)	Adjusted OR (95% CI)
Age	<25 years	12(50%)	12(50%)	0.767	0.857(0.310,2.373)	
	>25 years	18(46.2%)	21(53,8%)		1	
Sex	male	15(53.6%	13(46.4%	0.398	0.650(0.239,1,767	
	Female	15(42.9%	20(57.1%		1	
Marital status	Single	21(46.7%	24(53.3%	0.811	1.143(0.383,3.412	
	Married	9(50.0%)	9(50%)		1	
Education level	Nurse	24(52.2%	22(47.8%	0.238	0.500(0.158,1.580	
	Resident	6(35.3%)	11(64.7%		1	
Experience	<5 years	21(47.7%	23(52.3%	0.979	0.986(0.336,2.895	
	>5 years	9(47.4%	10(52.6%		1	
Have you ever had training on pain assessment ?	Yes	18(58.1%	13(41.9%	0.105	0.433(0.158,1.190)	
	No	12(37.5%	20(62.5%		1	
How many patients you see/ attend to daily	10-15	12(36.4%	21(63.1%	0.045	**4.667(1.037,21.010)**	0.507(0.306,1.840)
	15-20	3(42.9%)	4(57.1%)	0.214	3.556(0.481,26.282)	
	20-30	7(58.3%	5(41.7%	0.472	1.905(0.330,11.009)	
	>30	8(72.7%)	3(27.3%)		1	

6. Discussion

In palliative care, comprehensive and holistic assessment of the patients' total pain, i.e, physical, psychosocial and spiritual pain is very important to increase quality of life of patients with serious and life threatening illnesses. In our country especially as palliative care is new and progressively being adopted at primary care level, it is very important that the health professionals providing this care have adequate knowledge, attitude and practice towards total pain assessment. The aim of this study was to assess the knowledge, attitude and practice of health professionals i.e., nurses and residents working in palliative care unit at TASH.

Accordingly the study showed the knowledge of health professionals working in palliative care unit at TASH towards total pain assessment was adequate in 38(60.31%) of the study participants .The knowledge score among residents was found to be adequate in 14 (82.35%) , and among nurses found to be adequate in 24(52.17%).this is higher than results of studies done in Malaysia, where Doctors scored 41.7%.(10). This study also showed higher score than study done in Tamil Nadu India, where nurses scored 51.5% while doctors scored 62.3%. (18).The result of this study is higher than study done at Debremarkos hospital where majority of the respondents (53.3%) showed inadequate knowledge(15). The reason for this discrepancy may be due to different study settings, while this study was done in palliative care unit , the other studies are done in interdepartmental and multicenter level. On the contrary this study showed lower level of knowledge than a study done in Gonder Comprehensive Specialized hospital where 66.9% of study participants have good knowledge level towards pain management.This may be due to the Gondar study involved all the nurses working in all departments of the hospital(12).

In this study 25(39.68%) of study participants have favorable attitude while 38(60.32%) have unfavorable attitude towards total pain assessment. this is low level of attitude in comparison to the study done in Uganda where majority of the respondents have positive attitude towards pain assessment in patients with cancer where nurses' on average scored 9 out of a total score of 12, indicating a positive attitude towards pain assessment and management.This may be due to the Ugandan study was done at cancer institute where nurses are expected to be trained to give cancer related care only for cancer patients.(14).This is also lower level of attitude compared to study done in Debremarkos hospital where 51.3% of the study participants have unfavorable attitude, This may be due to the Debremarkos Study involved health professionals working in different units, including pharmacists, anesthetists in addition to doctors and nurses(15).

The results of this study showed nurses to have unfavorable attitude compared to residents towards total pain assessment on multi variable logistic regression with adjusted Odds ratio of 0.044 with 95 % CI.(0.005,0.382). This is in line with study done in Nepal which showed a statistically significant difference in the KASRP score between doctors, pharmacists and nurses ($p<0.001$)(7).

The results of this study showed 30 (47.6%) participants have good practice, while 33(52.4%) have poor practice. This is in line with study done in Debremarkos Hospital where most of the health professionals(77.5 %) had poor practice, although in the study access to pain assessment

tool (AOR=11.02, CI=2.82-43.00) and workload (AOR=12.50, CI=5.52-28.31) found to be predictors of pain management practice level(15).

In conclusion since this study was limited to single center in patient palliative care unit, the findings may not represent knowledge, attitude and practice of health professionals towards total pain assessment in other health care units or hospitals. Broader studies are required to assess knowledge attitude and practice towards total pain assessment involving more than one in patient palliative care unit, that may involve oncology clinics, outpatient palliative care units and involving home based palliative care providing health professionals to improve the quality of life of patients with serious life threatening illness.

7. Strength and limitations

7.1. Strength

- This study tried to assess knowledge, attitude and practice of health professionals towards total pain assessment in palliative care.
- This is the first of this kind of study and could be encouraging to do further studies in the area.
- The study also assessed knowledge, attitude and practice based on profession residents and nurses separately.
- The study was done to assess pain assessment in palliative care

7.2. Limitations

- The study was based on participants self-report , and no direct observation of the actual performance was done.
- The study was limited only to palliative care unit of Tikur Anbessa Specialized Hospital.

8. Conclusion and recommendation

8.1. Conclusion

This study showed,

- Nurses providing palliative care service at the palliative care unit of TASH have adequate knowledge and good practice towards total pain assessment.
- Nurses have unfavorable attitude towards total pain assessment.
- Residents have adequate knowledge and favorable attitude towards total pain assessment
- Residents have poor practice towards total pain assessment
- Significant association was found between favorable attitude and being a resident by profession, with residents having more favorable attitude towards total pain assessment than nurses.
- The Findings of the study indicate health professionals providing palliative care at TASH had adequate knowledge.
- The findings also indicate the need to improve their attitude and practice towards total pain assessment.

8.2. Recommendations

Nurses

Nurses have adequate knowledge but unfavorable attitude and good practice, this need to be corrected by

- providing proper training,
- Availing guidelines and protocols and the tools for total pain assessment.
- This can be done with collaboration by family medicine department, and the nursing staff, and Tikur Anbessa specialized hospital management

Residents

Residents have adequate knowledge, favorable attitude and poor practice.

- Residents should be encouraged and supervised for proper use of
    - the pain assessment and management guidelines,
    - tools and protocols for total pain assessment.

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10.Annexes

10.1.Information sheet

Hello! My name is Dr. Amelework Worku .I am final year family medicine resident and I am conducting research on knowledge, attitude and practice towards total pain assessment among health proffessionals providing palliative care service in Addis Ababa University School of Medicine, Tikur Anbessa Specialized hospital, Addis Ababa. The aim of the study is to assess the knowledge, attitude, and practice of health professionals providing palliative care service at Addis Ababa University Tikur Anbessa Specialized Hospital. This helps to identify improvement areas, so that actions could be taken by concerned bodies to correct the observed gaps. Inorder to attain this goal your kind and honest participation is very crucial.

Participation in this study is voluntary and the response you give is confidential and nobody will know your answer. I am asking you to spend a few minutes of your time to participate in the study.

10.2.Consent form

The questionnaire will take 15 to 20 minutes of your time

Your honest answer is very important to produce quality data inorder to plan appropriate measures that could be taken.

Thank you for participating. If you have any questions you can ask

Principal investigator; Dr. Amelework Worku

Phone number: 0969140520

Are you willing to participate in this study?

YES

NO

Signatue----------

Thank you.

10.3. Data collection tool

Part1.socio demographic variables	
1,1. Age in years	
1.2. sex	A) male B)female
1.3.Marital status	A)single B)married C)divorced D)widowed
1.4.education level (for nurses)	A)diploma nurse B)BSC Nurse C)masters D) other
1.5. year of residency (for residents)	A)first year B) second year C)third year
1.6. work experience in years	A) < 2 years B) 2-5 years C) 5-10 years D) > 10 years
1.7. have you ever received training on pain assessment	A) yes B) No
1.8.do you regularly read and update your knowledge on current pain assessment tools and guide lines ?	A) always B) often C)sometimes D)never
1.9.how many patients/day do you see/attend to?	A)<10 B)10-15 C)15-30 D)>30
Part2.knowledge of health professionals towards total pain assessment	
2.1The best judge of intensity of the patient's pain is the patient.	A)True B) False
2.2)Oral route is the recommended route of opioid analgesics administration for persistent cancer related pain	A) True B) false
2.3)Patients with chronic pain need higher dosages of pain medications than patients with acute pain.	A) True B) False
2.4)Spiritual beliefs of the patient may lead them to think pain and suffering are necessary.	A) True B) False
2.5)Analgesics working by different mechanisms may result in better pain relief and fewer side effects when combined, than using single analgesic agent.	A) True B) False
2.6)Nonsteroidal anti inflammatory agents and aspirin are not effective for painful bone metastases	A) True B) False
2.7)Distracting patients with music or relaxation can decrease pain perception.	A) True B) False
2.8)Equianalgesia means approximately equal analgesia and is used when referring to the doses of various analgesics that provide approximately the same amount of pain relief.	A) True B) False

2.9)In patients' receiving stable doses of opioid over period of months, respiratory depression rarely occurs.	A) True	B) False
2.10)Patients should be individually assessed to determine cultural influences on pain	A) True	B) False
2.11)Since children less than 11 years old cannot reliably report pain, clinicians should rely solely on parents' assessment of the child's pain.	A) True	B) False
2.12) For continuous pain, giving narcotics on a regular schedule is preferred over ''p.r.n'' schedule.	A) True	B) False
Part 3.practice of health professionals towards total pain assessment		
3.1.) how often do you assess pain for patients with life threatening illness?	A)always C)sometimes	B)often D)never
3.2.) If your answer to question 3.1.is yes , how often do you use pain assessment tool?	A)always C)sometimes	B)often D)never
3.3) Do you use the numeric scale to assess pain of patients in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.4.) Do you use the visual analogue scale to assess pain of patients in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.5) Do you use (FACE scale) to assess pain in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.6) Do you use behavioral pain scale (FLACC) to assess pain in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.7.) Do you ever use the two item question to screen for depression in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.8) Do you ever use the PHQ9 to screen for depression in palliative care in your practice ?	A)always C)sometimes	B)often D)never
3.9) Do you ever use the GAD 7 to screen for anxiety in palliative care in your practice?	A)always C)sometimes	B)often D)never
3.10) do you ever use the HOPE /or other tool to assess spirituality in palliative care service in your practice?	A)always C)sometimes	B)often D)never
3.11) Do you reassess pain after giving analgesics for the effectiveness of the pain medication?	A)always C)sometimes	B)often D)never
3.12) Do you discuss pain scores and management during nurse to nurse report(if you are a nurse) or resident to resident hand over(if you are resident)?	A)always C)sometimes	B)often D)never
3.13.) Do you use non pharmacological	A)always	B)often

intervention for pain management?	C)sometimes D)never
3.14) If your answer to question 3.13 is yes, which methods do you use?	A)exercise B)relaxation/yoga C)acupuncture D)hot/cold compress
3.15)How often do you use the WHO analgesic ladder for adults and children in your practice ?	A)always B)often C)sometimes D)never
4.Attitude of health professionals towards total pain assessment	
4.1.Pain is seen in the patient's behavior	A) true B) false
4.2.Distraction reduces pain intensity	A) true B) false
4.3.Non pharmacological methods effectiveness is for mild to moderate pain not severe pain.	A) true B) false
4.4.Health professionals experience affects pain assessment and management	A) true B) false
4.5.Health professionals are best judge of the patient's pain intensity	A) true B) false
4.6.patient's complain of severe pain cannot be relied up on unless there are observable changes of vital	A) true B) false
4.7 pain score is considered the 5 th vital sign and should be documented	A) true B) false
4.8.Proper pain assessment and management are of priority in palliative care patients	A) true B) false
4.9.Patients should be encouraged to endure as much pain as possible before using an opioid	A) true B) false