ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF PEDIATRICS AND CHILD HEALTH

Knowledge and Attitude Towards Palliative Care Among Pediatric Residents in Teaching Hospitals in Addis Ababa, Ethiopia

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Research Title

Title of Research	Knowledge and Attitude Towards Palliative Care Among Pediatric Residents in Teaching Hospitals in Addis Ababa, Ethiopia
Name of Investigator	Dr. Tewabech Bellege (Third year, Pediatrics and Child Health Resident)
Name of Advisor	Dr. Muluwork Tefera (Pediatrics Emergency and Critical Care Sub Specialist)
Duration of Research (including proposal development)	6 months (April – September, 2021)
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Address of the Investigator	AAU; College of Medicine and Health Science

Declaration

I, the undersigned, Pediatrics and Child Health final year resident declare that proposal done is my original work in partial fulfillment for the certificate of Pediatrics and Child Health.

Title: - Knowledge and Attitude Towards Palliative Care Among Pediatric Residents in Teaching Hospitals in Addis Ababa, Ethiopia.

Submitted by:-

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Dr. MULUWORK TEFERA	_______________	_______________
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Acronyms/Abbreviations

WHO: World Health Organization

WHA: World Health Assembly

PC: Palliative Care

PPC: Pediatric Palliative care

CI: Confidence Interval

KAP: Knowledge, Attitudes, and Practices

SPSS: Statistical Package for Social Science

1 Introduction

1.1 Background

Palliative care is an active, holistic approach that improves the quality of life of patients (from the peri-natal period, through infancy, childhood, adolescence and adulthood) and their families facing the problems associated with life-threatening, life-limiting, and chronic illness; through the prevention and relief of suffering, by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Palliative care is a crucial part of integrated, people-centered health services. Relieving serious health-related suffering, is a global ethical responsibility. (1)

People younger than 20 years comprise 35% of the global population and 40% of the global population of least-developed nations.

The number of children – neonates, infants, children, and adolescents up to 19 years of age who need pediatric palliative care (PPC) each year may be as high as 21 million. (2)

The American Academy of Pediatrics (AAP) recommended that children living with a life-threatening or terminal condition have access to quality pediatric palliative care throughout the course of their illness. The AAP also recommended that generalist and subspecialty pediatricians, including residents and fellows, should become knowledgeable in and comfortable with providing palliative care (3).

The World Health Assembly has resolved that providing access to palliative care for children is "an ethical responsibility of health systems.''

Despite the exposure of pediatricians to children with life limiting, evidence suggests that pediatricians lack sufficient palliative care knowledge (4).

Studies of bereaved family members report dissatisfaction with the care their children received regarding communication at the end of life and pain and symptom management. (5)

One of the important factors influencing a successful delivery of palliative health care is the health care professionals’ knowledge, attitudes, beliefs, and experiences, which determine not only their procedure but also their behavior during evaluation and treatment of patients. (6)

1.2 Problem Statement

Many studies showed that integrating palliative care early in the disease trajectory can result not only in a good control of such symptoms and better quality of life for those patients and their families but also in their illness perception, goals of care discussion, acceptance of advanced care planning, and overall survival. (7)

There is a general paucity of information regarding the actual need for palliative care specifically for children. Remarkably, however, Pediatric Palliative Care has not been seen as a priority around the world. A study found no PPC services in 65.6% of countries (8).

Our research tries to answer the Question: What is the knowledge and attitude of the pediatric residents towards palliative care?

As far as our knowledge is concerned, there is no sufficient research specifically on Residents’ knowledge and Attitude towards palliative care in Ethiopia. Thus, the documentation of existing knowledge and attitudes of Residents towards palliate care would help in planning and integrating the necessary interventions into continuing education sessions and routine assessments according to areas of weakness.

1.3 Significance of the Study

This research is based on the fact that there is an unmet need of palliative care services in the country. In order to close these gaps, health care professionals need to have the knowledge and understanding of palliative care needs and methods of delivery of palliative care services.

Thus, to improve this aspect of care, it is desirable to assess the knowledge and attitude regarding palliative care services among pediatrics and child health residents in teaching hospitals in Addis Ababa, Ethiopia. This will help in devising appropriate strategies to improve the knowledge and attitude of healthcare professionals (residents) regarding pediatric palliative care delivery in our setup.

2 Literature Review

2.1 Introduction

According to WHO Palliative care for children represents a special, albeit closely related field to adult palliative care. WHO’s definition of palliative care appropriate for children and their families is as follows; the principles apply to other pediatric chronic disorders:

– Palliative care for children is the active total care of the child's body, mind and spirit, and also involves giving support to the family.

– It begins when illness is diagnosed, and continues regardless of whether or not a child receives treatment directed at the disease.

– Health providers must evaluate and alleviate a child's physical, psychological, and social distress.

– Effective palliative care requires a broad multidisciplinary approach that includes the family and makes use of available community resources;

– It can be successfully implemented even if resources are limited.

– It can be provided in tertiary care facilities, in community health centers and even in children's homes.

Conditions Eligible for Children’s Palliative Care

There are over 360 conditions that have been identified as eligible for the provision of palliative care to children. The diseases requiring Childhood Palliative Care fall within the following domains:

1. Life threatening: may be able to be cured

2. Premature death is inevitable, but have long periods of wellness because of treatments

3. Progressive conditions where treatment is exclusively palliative

4. Irreversible but non-progressive conditions (1)

2.2 Diseases Requiring Palliative Care

According to the Global Atlas of Palliative Care at End of Life, the following diseases and conditions in children are considered to require palliative care: cancer, cardiovascular diseases, cirrhosis of the liver, congenital anomalies, endocrine disorders, HIV and AIDS, meningitis, kidney disease, neurological disorders, neonatal conditions, and drug resistant tuberculosis (9).

2.3 Burden of Palliative Care around the World

Palliative care is somewhat established and expanding and mostly provided in high-income countries. In the United States of America, 61% of hospitals with more than 50 beds reported a palliative care team (10).

In a systematic review, Knapp and colleagues adapted a four-part system devised by the Observatory on End-of-Life Care (OELC), an internationally recognized center for palliative care research, to categorize provision around the world. Two-thirds of countries reportedly offered no pediatric palliative services; 19% were classified at Level 2 (capacity building) and 10% at Level 3 (localized provision). Even countries achieving mainstream provision (Level 4), such as South Africa and many high-income countries, vary regionally in service quality and accessibility. (8)

2.4 Burden of Palliative Care in Africa

Ninety-eight percent of children requiring palliative care live in LMICs, and approximately half live in Africa. (11)

In low- and middle-income countries, with almost 80% of the global need, palliative care is most needed. However, it is only beginning to be available as an emerging medical specialty with the establishment of palliative care centers in Asia and few countries in Africa(12).

Palliative care (PC) has steadily grown in Africa over the past decade; 15 countries moved to higher levels of PC development. However, about half of African countries had no identified PC service. Although there is much hope for PC development on the continent, there are many challenges impeding its progress, including disease burden, high morbidity and mortality, lack of funding and resources, and poverty. In a recent study of 48 African countries, 19% had no hospices or hospice services and only 22% had documented hospice polices, with rare exceptions such as Uganda, Kenya and South Africa. Few countries in Africa have organized palliative care systems (13).

2.5 Healthcare Personnel Knowledge Towards Palliative Care

The vast majority of health professionals worldwide have little or no knowledge of the principles and practices of palliative care. All medical professional schools should include basic training on palliative care and continuing professional education should include palliative care for existing health professionals (11).

A study, conducted in British Columbia (Canada), indicated that 75% of the physicians in the sample did not receive adequate palliative care education, adding that most residents wanted the residency program itself to provide a more solid theoretical and practical basis for palliative care (14).

Another study, conducted in India by Mohamed et al, showed that the majority of a sample of 120 resident physicians feel comfortable discussing prognosis and treatment goals with patients and family members. However, the same researchshowed that when the communication involved more delicate issues, more than half (75%) of the physicians never participated in meetings with family members (15).

Even so, palliative care is still poorly addressed in medical schools. Several studies emphasize that both medical students and trained physicians are not given guidance on palliative care. This was demonstrated by a survey carried out in São Paulo with medical students in year 5 and 6, among whom 83% did not receive satisfactory information about terminally ill patients during their undergraduate studies (16).

In Africa, in the last 20 years, healthcare professionals in at least 30 countries out of 56 in Africa have had training in palliative care. However, many of the services if commenced in these countries are confined to the capital, not spreading to the rest of the country, except for very few of them such as Uganda and Kenya who offer widespread, well-integrated palliative care (17).

The evidence is clear that pediatricians in general lack training regarding pain management and palliative care. A number of small studies documented that pediatric residents receive meager training in palliative care (18).

Lack of similar studies in Ethiopia also makes the comparison and discussion difficult. In addition, lack of a standard tool for practice and unavailability of Palliative Care unit in the hospitals involved were challenges of this study to assess the real practice of residents on Palliative Care.

In Ethiopia there is an extensive unmet need for palliative care, while the burden of non-communicable diseases and cancer is increasing.
Ethiopia is one of the Sub-Saharan countries where high burden of suffering and lack of access to pain relief and palliative care are apparent (19).

3 Research Objective

The objectives of the research are presented as follows:

3.1 General Objective

- To assess knowledge and attitude towards palliative care among Pediatric Residents working in three teaching hospitals, in Addis Ababa Ethiopia

3.2 Specific Objectives

- To assess Residents' level of knowledge towards palliative care
- To identify Residents' attitude towards palliative care

4 Research Methods/ Methodology

4.1 Study Area and Setting

This study was conducted in three of the teaching hospitals in Addis Ababa, Ethiopia.

- Tikur Anbessa Specialized Hospital, Department of Pediatrics and child health. Situated at the heart of the capital city on Churchill Avenue, this hospital is the largest teaching hospital in the country providing undergraduate as well as postgraduate teaching services. It has more than 560 beds and offers diagnosis and treatment for approximately 400,000 patients a year. There are 104 residents currently enrolled from first to third year in training.

- St. Paul’s Millennium Medical College Hospital, Department of Pediatrics and child health.

  St. Paul's Hospital was built in 1969 It currently has 392 beds, with an annual average of 200,000 patients and a catchment population of more than 5 million. There are over 1300 clinical and non-clinical staff in over 13 departments

  St Paul’s Millennium Medical College, the second largest in the city, was established through a decree of the Council of Ministers in 2010. There are 75 residents currently enrolled in the department of pediatrics and child health.

- Yekatit 12 Hospital Medical College, Department of Pediatrics and child health.

  Yekatit12 Hospital was established in 1923 as one of modern medical service delivery centers in the country. After many decades of medical service delivery, in 2011, it became a medical College by a decision of the City Government of Addis Ababa.

  It launched the residency program in 2020 in pediatrics and child health and currently has 24 pediatrics and child health residents in first and second years of training.

4.2 Study Design

Descriptive Cross-Sectional Explorative study was used for conducting the study. The research was a descriptive research focusing mainly to describe characteristics that exist in the research community.

4.3 Study Period

The study was conducted between June 1, 2021 – September 1, 2021 (G.C)

4.4 Source and Study Population

3.4.1: Source population: All pediatrics Residents in Addis Ababa, Ethiopia

3.4.2: Study Population: All pediatrics residents first to final year in all 3 teaching hospitals in Addis Ababa enrolled in the training program and those who are met the inclusion criteria.

4.5 Inclusion Criteria:

All pediatric residents who are willing to participate in the data collection and who have given a verbal consent were included in the study.

4.6 Exclusion Criteria:

All residents who refuse to participate in the study and give verbal consent as well as those on leave or absent were excluded from the study.

4.7 Sample Size Determination

The total sample was determined by using single population proportion formula by considering the following assumptions

- 95% CI and 5% margin of error
- P=50% since no previous study.

The following formula were used to calculate sample sizes.

- n = $(Za/2)2*p(1-p)/d2$;

then after substituting $(1.96)^2 (0.5*0.5) = 384$

There for the total population of 191 residents in this study which is less than 10,000, so using reduction formula

$$NF = \frac{n}{1+n/N}$$

The minimum sample size required for the study was estimate to be 128 then with the addition of a 10% non-response rate, the total sample size is calculated as **141**.

Based on the calculated number of participants available residents was given out questionnaire until we reach our desired sample size number.

4.8 Tool of the Study:

Data collection a self-administered questionnaire written in English was used.

A self-administered questionnaire was used. The questionnaire was adopted after extensive literature review on the topic after discussion with the research advisor. It was pretested and validated and revised to fit in to our working setup.

The questionnaire was distributed to the residents in Google forms and the response was collected online.

The questionnaire consists of 3 sections.

Section one: Inquiries about demographic data and palliative care experience.

Section two: Measuring the Attitude using 5 points Likert scale.

Section three: explores knowledge. It consists of 2 parts; the first part was about the self-reported knowledge using also 5 points Likert scale. The second part is clinical questions.

All the questions are in English, it was distributed to the study subjects using Google Forms, and the filled-out questionnaires were sent to the principal investigator.

4.9 Data Quality Assurance

The validity and reliability of the questionnaire was discussed with research advisor.

To Maintain the quality of data structured and pretested questionnaires and check lists were used to collect information.

The completeness of questionnaires was checked every day by investigator before actual data analysis and interpretation.

4.10 Data Analysis:

Data was entered in to Epidata and exported to SPSS and checked for missing values. Cleaning was then done by running frequency after data entry. Descriptive statics has been used to describe frequency and percentages and displayed in tables, graphs and charts.

Qualitative data was represented in the form of frequency (number and percent). Pearson’s Chi-Square test was used for comparison between dependent and independent variables.

4.11 Quality Control

4.11.1 Dependent variable

Knowledge and Attitude about palliative care

4.11.2 Independent variables

Independent Variables**:** Socio-demographic characteristics (age, sex, religion, marital status), Professional characteristics (year of experience, experience of caring terminally ill patients, years in Residency and training on palliative care.)

4.12 Definition of Concepts

CONCEPTS

Residents: Refers to any doctor who has graduated from Medical School and is in A specialty (Residency) training program.

Pediatrics: Is the specialty of medical science concerned with the Physical, Mental and Social Health of children from birth to young adulthood.

Knowledge: Facts, information and skills acquired through experience or education:

Attitude: Are general evaluations that people hold regarding a particular entity,

Operational definition

For KAP assessment, the widely adopted Bloom’s cutoff points are the following:

80-100% (good K&A),

60-79% (moderate K&A), and

less than 60% (poor K&A)

5 Ethical Considerations

Our research team has obtained a written permission from the Department Research and Publication Committee, at Addis Ababa University College of Medicine and Health science, Department of Pediatrics and Child Health to carry out the study.

The data collection was anonymous, which do not include names of individual participant and any other personal identifiers.

The objectives of study were explained to the participants and a written consent were obtained from each respondent prior to data collection.

The participation was entirely voluntary and confidentiality of the responses were duly maintained

The research did not place the data records unwarranted risk; rather were be kept inside locked boxes.

6 Results

6.1 Sociodemographic Characteristics

In this study 143 residents participated. Fifty five percent (55%) of the study participants were male and 120 (83.9%) were in the age group of 25-30 years and 95 (66.4%) were single and 90 (62.9%) were Orthodox Christian. More than seventy percent of the participants had 1-3 years of work experience, 117 (81.8%) received no formal training in Pediatric Palliative care and 77 (53.8%) didn't have discussions of palliative care with patients in the past three months.

Table 1: The Sociodemographic Characteristics of Study Participants About KAP on Child Abuse in Three Teaching Hospital of Addis Ababa, Ethiopia, 2021.

Variable	Frequency	Percent
Sex		
Male	79	55.2
Female	64	44.8
Age in Years		
25-30	120	83.9
31-35	21	14.7
>35	2	1.4
Religion		
Orthodox Christian	90	62.9
Protestant	33	23.1
Muslim	18	12.6
Catholic	2	1.4
Marital status		
Single	95	66.4
Married	46	32.2
Divorced	2	1.4
Years of Practice		
<1 Years	17	11.9
1-3 Years	72	50.3
3-5 Years	41	28.7
>5 Years	13	9.1
Year of residency		
First year	72	50.3
Second year	42	29.4
Third year	29	20.3
Place of Residency		
TASH	83	58
St Paul Millennium Medical College	44	30.8
Yekatit 12 Hospital	16	11.2

Variable	Frequency	Percent
Discussions on palliative care in past three months		
No patients/ Families	77	53.8
1 to 5 patients/ Families	61	42.1
6 to 10 patients/ Families	5	3.5
Have you had any form of formal teaching on palliative care?		
Yes	26	18.2
No	117	81.8

6.2 Knowledge Characteristics of Study Participants

Respondents were asked 18 questions divided into 2 parts to assess their knowledge:

The first 3 questions were presented in Likert scale and the second part were 15 item questions to assess their knowledge.

The overall knowledge of study participants was computed using bloom cut-off points and classified as 80-100% Good Knowledge, 60-79% Moderately Knowledge and < 60% as Poor Knowledge.

In the study 31(21.7%) had poor knowledge, 98 (68.5%) had moderate knowledge and 14 (9.8%) had good knowledge.

In this study, 59.4% of participants rated their experience in managing pain in terminal patients as weak, fifty six percent (56%) of the participants rated their experience in managing other palliative symptoms like constipation nausea and vomiting as good. Fifty three percent (53%) of the participants rate their experience in conducting family counseling and breaking bad news as Good

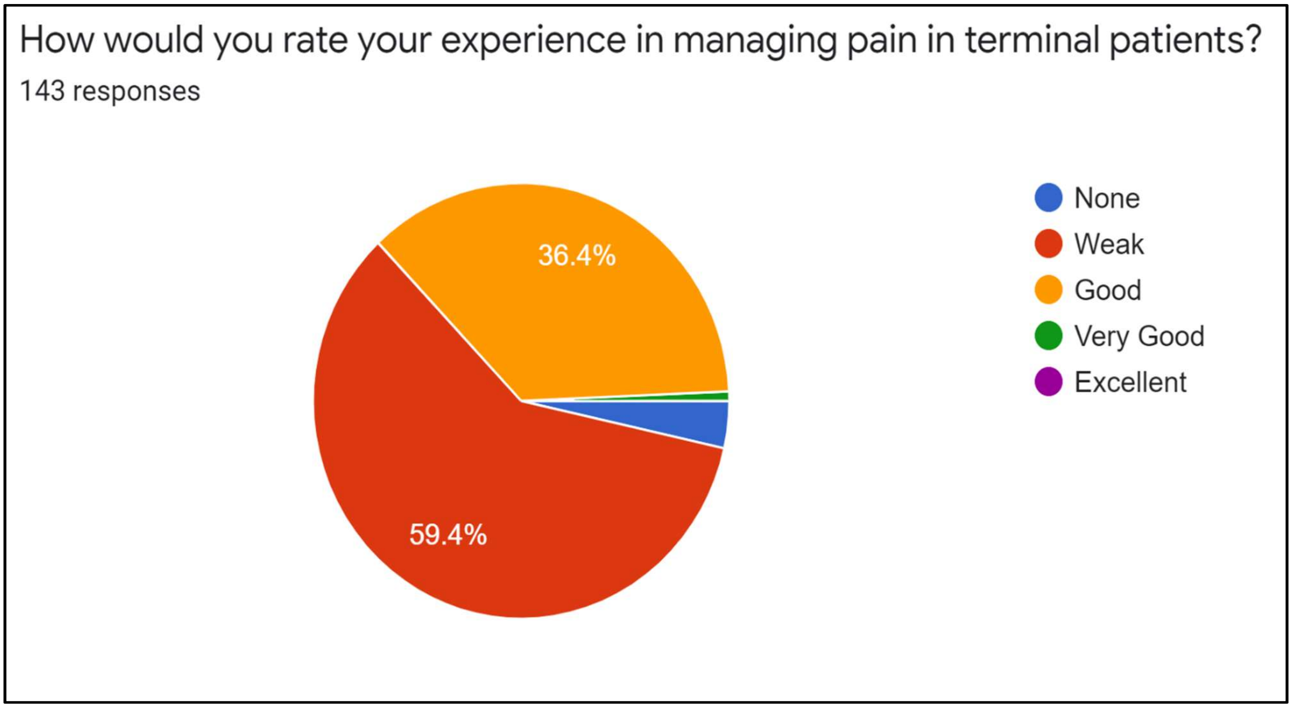

Figure 1: Percentage Distribution to Pain Management Experience of Respondents

Eighty six percent (86%) believe that palliative care is focused on comfort rather than cure. Forty three percent (43%) of participants believed that children of all diagnoses were eligible for palliative care services. Sixty nine percent (69%) of participants believe that palliative care should be instituted during diagnosis and eight five percent (85%) believe that family members of children with terminal stage should be informed of their diagnoses. Eighty seven percent (87%) of participants currently practice the involvement of family members in decision making process of child's condition.

The most widely used pain medication (82.5%) was paracetamol according to participants for treating pain. Forty seven percent (47%) of participants used pain assessment tools for assessing pain in children.

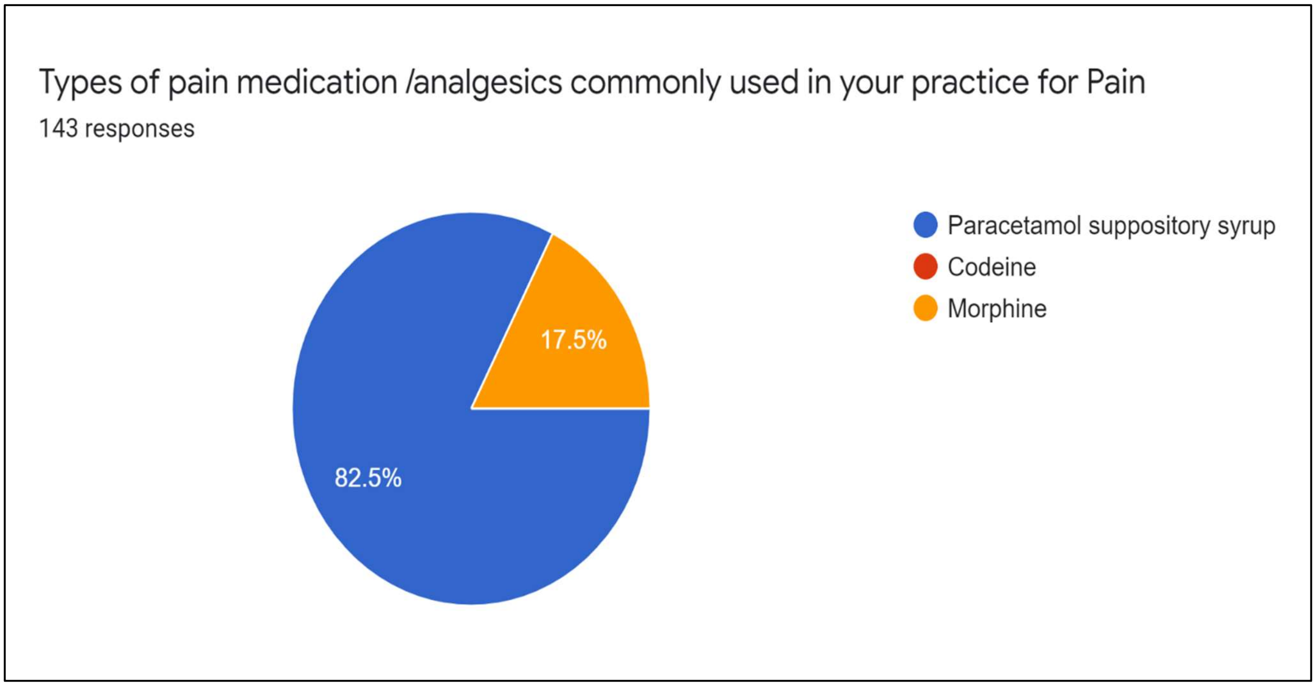

Figure 2: Preferred Pain Medication Commonly Used as per Respondents

6.2.1 Determinants of Knowledge of Study Participants

Presence or absence of statistically significant difference in knowledge score due to factors like; Age, Sex, Year of experience, Year of residency and formal training on palliative care were assessed using Pearson chi-squared test.

The correlation between Year of Residency and Knowledge showed a statistically significant correlation with a p-value = 0.032. First year residents scored 5.6% (Poor), 73.6% (Moderate) and 20.8% (Good). Second year residents scored 9.5% (Poor), 59.5% (Moderate) and 31% (Good). For final (third) year residents scored 3.4% (Poor), 44.8% (Moderate) and 51.7% (Good).

Table 2: Correlation between Knowledge and Year of Residency

Year Of Residency	Knowledge Classification			Total	P-Value
	Poor	Moderate	Good		
Year 1	5.6%	73.6%	20.8%	100.0%	0.032
Year 2	9.5%	59.5%	31.0%	100.0%	
Year 3	3.4%	44.8%	51.7%	100.0%	

6.3 Attitude Characteristics of Study Participants

Respondents were asked 13 questions to assess their Attitude. All the questions were presented in Likert scale and the response of the participants is presented in Table 3 below.

Table 3: The attitude of study participants on child abuse

Question	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Palliative care is the right for the patient since day one diagnosis of life-threatening illness.	10 (7%)	8 (5.6%)	1 (0.7%)	54 (37.8%)	70 (49%)
Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration	26 (18.2%)	74 (51.7%)	14 (9.8%)	27 (18.9%)	2 (1.4%)
The provision of palliative care requires emotional detachment	23 (16.1%)	60 (42%)	21(14.7%)	27 (18.9%)	12 (8.4%)
The accumulation of losses renders burnout inevitable for those who seek work in palliative care	4 (2.8%)	24 (16.8%)	40 (28%)	60 (42%)	15 (10.5%)
Adjuvant therapies are important in managing pain	7 (4.9%)	3 (2.1%)	3 (2.1%)	64 (44.8%)	66 (46.2%)
It is crucial for family members to remain at the bedside until death occurs	5(3.5%)	8(5.6%)	15 (10.5%)	72 (50.3%)	43 (30.1%)
The philosophy of palliative care is compatible with that of aggressive treatment	14 (9.8%)	53 (37.1%)	22 (15.4%)	40 (28%)	14 (9.8%)
Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain	17 (11.9%)	31 (21.7%)	2 (1.4%)	70 (49%)	23 (16.1%)
Palliative care benefits include enhanced quality of life for the patient and family	5 (3.5%)	2 (1.4%)	1 (0.7%)	71 (49.7%)	64 (44.8%)
Palliative care benefits include skilled care for terminally ill patients.	3 (2.1%)	1 (0.7%)	4 (2.8%)	77 (53.8%)	58 (40.6%)
As a patient nears death; the physician should withdraw from his/her involvement with the patient	66 (46.2%)	65 (45.5%)	2 (1.4%)	6 (4.2%)	4 (2.8%)
The family should be involved in the physical care of the dying person	22 (15.4%)	57 (39.9%)	27 (18.9%)	30 (21%)	7 (4.9%)
It is difficult to form a close relationship with the family of a dying member	22 (15.4%)	57 (39.9%)	27 (18.9%)	30 (21%)	7 (4.9%)

6.3.1 Determinant of Study Participant’s Attitude

Age and Year of residency were found to have a significant correlation on the attitude of the study participants.

The correlation between Age and Attitude showed a statistically significant correlation with a p-value <0.001. Age groups from 25 – 30 years scored 2.5% (Unfavorable), 75.0%

(Moderate) and 22.5% (Favorable). Age groups of more than 30 years scored 21.7% (Unfavorable), 47.8% (Moderate) and 30.4% (Favorable).

The correlation between Year of Residency and Attitude showed a statistically significant correlation with a p-value = 0.007. First year residents scored 5.6% (Unfavorable), 75.0% (Moderate) and 19.4% (Favorable). Second year residents scored 9.5% (Unfavorable), 76.2% (Moderate) and 14.3% (Favorable). For final (third) year residents scored 0.7% (Unfavorable), 51.0% (Moderate) and 48.3% (Favorable).

Table 4: Correlation between Attitude and Age and Attitude and Year of Residency

Age Classification	Attitude Classification			Total	P-Value
	Unfavorable	Moderate	Favorable		
25 - 30	2.5%	75.0%	22.5%	100.0%	<0.001
>30	21.7%	47.8%	30.4%	100.0%	
Year Of Residency	**Attitude Classification**			**Total**	**P-Value**
	Unfavorable	**Moderate**	**Favorable**		
Year 1	5.6%	75.0%	19.4%	100.0%	0.007
Year 2	9.5%	76.2%	14.3%	100.0%	
Year 3	0.7%	51.0%	48.3%	100.0%	

7 Discussion

The results of this study show the existing state of residents’ knowledge, and attitude regarding pediatric palliative care in TASH, St. Paul’s and Yekatit 12 Hospitals, as reported by the residents themselves

7.1 Knowledge about Pediatric Palliative Care

To my knowledge this study is the first in its kind to be conducted in the study area

The results of this study show the existing state of residents’ knowledge, and attitude towards pediatric palliative care in TASH, St. Paul and Yekatit 12 Hospitals as reported by the residents themselves

Accordingly, the overall knowledge of the participants was 66.7%.

The study finding also stated that majority of participants lacked any formal teaching, learning or training session on Pediatric Palliative care which goes in accordance with a Survey of Pediatricians in Mexico where the majority had not received palliative care education (92.6%) and felt uncomfortable discussing palliative needs with patients and families (92.1%) (20) and another research that studied Pediatric Resident Education in Palliative Care found that pediatric residents report minimal training, experience, knowledge, competence, and comfort in virtually all areas of palliative care for children (18).

To discuss about palliative care with families and patient’s majority of participants reported they didn’t have any discussions with families of terminal patients on palliative care in the past 3 months. This is similar with study done in Pakistan in Pediatric residents at teaching hospitals of Punjaba self-assessment of competency in end-of-life clinical skills, low or below average competence was reported in assessment and management of terminal delirium, agitation, and anxiety; use of adjuvant analgesics, discussing treatment withdrawal, use of parenteral opioid analgesics, and developing family-centered goals of care (21).

.

In our study regarding managing pain in terminal patients more than sixty percent rated their experience as weak. Thirty-two percent believed that their experience in managing other palliative care symptoms like constipation, nausea and vomiting as weak. Almost 40% believed that their experience in conducting family counseling and breaking bad news as weak

Regarding the institution of palliative care forty percent believed palliative care should be started at a stage of treatment where the risk of suffering is high. Seventy percent palliative care issues should be instituted during diagnosis.

Eight five percent believe family members should be informed if their child is at terminal stages.

Comparing Age and Years of residency versus knowledge on palliative care, statistically significant difference was found between First, Second- and Third-year residents in regards of knowledge towards palliative care. A study done in Punjab Pakistan also found that Improved competence was observed with the increasing years of training/experience (21).

In our study eight two percent of the participants didn’t not receive any formal training (workshop, lectures, teaching) in palliative care, of the eighteen percent who replied they had formal training on pediatric palliative care majority had training that lasted less than 1 day. There was no statistically relevant correlation between training on palliative care versus knowledge and attitude towards pediatric palliative care, this finding was discordant from a study that studies Factors Associated with Knowledge and Comfort Providing Palliative Care: A Survey of Pediatricians in Mexico Knowledge in palliative care was associated with exposure to oncologic patients and previous palliative care education but inversely related to the pediatrician’s age (20). This might be due to the small number of participants who had an actual formal training and the length if training was less than a day for most of the participants in our current study.

7.2 Attitude towards Pediatric Palliative Care

In our study regarding attitude towards pediatric palliative care, eighty seven percent of the participants believed that palliative care is the right of the patient since day one of diagnosis of life-threatening illness. A study that evaluated the impact of a palliative care team on residents' experiences and comfort levels with pediatric palliative care found nearly two-thirds of 294 respondents (63.6%) selected a description of PPC that describes palliative care as starting at the time of diagnosis regardless of treatment goals (22).

Nearly all participants (92%) stated that as a patient nears death the physician should not withdraw from his/her involvement with the patient. Eight percent believed that family members should remain at the bedside until death occurs. And 93 percent perceived a palliative care service enhanced quality of life of patients and families.

Regarding pain management 91 percent believed that adjuvant therapies are important in managing pain and eight two percent use paracetamol as the main pain medication analgesic commonly used in their practice while sixty five percent of participants wrongly believed that drug addiction was a major problem when morphine was used on a long-term basis for management of terminal pain (23) (24).

Comparing age and years of residency versus Attitude towards palliative care, statistically significant difference was found between First, Second and Third year residents in regards of Attitude towards palliative care which goes in accordance with other studies done in other studies (21).

8 Conclusion

The result of this study revels more than half of the study participants was found to have moderate knowledge and moderate attitude aspects towards pediatrics palliative care.

This study showed majority of the residents lacked any formal training on pediatric palliative care services. Majority of the participants used Paracetamol as the choice of medication for treating pain and majority believed that a major drawback of using Morphine for terminal pain was addiction.

We can also conclude from our study that majority of the participants rated their experience in treating pain for terminal patients as weak. We also found a correlation between age and years of residency had a correlation with Knowledge/ Attitude of participants towards pediatric palliative care.

9 Limitations of the Study

One limitation is sampling bias, since only 3 hospitals were surveyed the responses may not be representative of the knowledge and attitudes of the overall population of Pediatric Residents in the Ethiopian setting.

Lack of similar studies in Ethiopia also makes the comparison and discussion difficult. In addition, lack of a standard tool for practice and unavailability of Palliative Care unit in the hospitals involved were challenges of this study to assess the real practice of residents on Palliative Care.

10 Recommendation

- There is a clear need for increased efforts in pediatric palliative care education during residency training program.
- Pediatric palliative care services should be available to all children as required, regardless of their diagnosis or the location of their care. Caring for someone with a life-limiting condition can be challenging on both an emotional and practical level. However, caring for a child or adolescent with a life limiting condition requires specific knowledge and practical skills.
- Pediatric palliative care should be incorporated to under graduate and post graduate curriculum.
- Furthermore, studies needed in this area and the government insight to understand life limiting condition problem of children and provision pediatric palliative care according to the context of Ethiopia.
- Since pediatric palliative care is multidisciplinary approach FMOH, Addis Ababa Health Bureau has to provide regular training.

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ANNEX I: CONSENT FORM

This study is proposed to assess Pediatric and Child Health Residents’ Knowledge, and Attitude towards Palliative Care.

In order to attain the goal effectively, we are asking for your generous help. Here is a format for you to complete. There is no need to put your name on the format. No individual response was reported. It is your full right to participate or refuse in the study. However, your honest participation will have a great contribution.

So please take a few minutes to answer these questions. If there is anything that clarification, please do not hesitate to ask the facilitator.

Do you wish to participate in the study?

Yes, I want to participate in the study (please go to the next page)

No, I do not want to participate.

Signature______________________

ANNEX II: QUESTIONNAIRE

Section 1: Demographic Data

1- Age: …………………..
2- Sex
    A. Male
    B. Female
3- Year of Residency:
    A. Year 1
    B. Year 2
    C. Year 3
4- What is your current marital status?________
    A. Single
    B. Married
    C. Divorced
    D. Widowed
    E. other
5- What is your religion?
    A. Orthodox Christian
    B. Protestant
    C. Muslim
    D. Catholic
    E. Other
6- Where is your permanent residence area?-------------
7- Years in practice:
    A. < 1 year
    B. 1-3 years
    C. 3-5 years
    D. > 5 years
8- Place of work:……………………
9- Discussions of palliative care (past three months)
    A. No patients, families
    B. 1 to 5 patients, families
    C. 6 to 10 patients, families
    D. 11 to 15 patients, families
    E. More than 15 patients, families
10- Did you receive any formal training (workshops, lectures, teaching) in palliative care
    A. Yes
    B. No

11-If the answer of Q10 was yes, please mention for how long?.....................

Section II: Attitude toward Palliative Care

Question	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Palliative care is the right for the patient since day one diagnosis of life-threatening illness.					
Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration					
The provision of palliative care requires emotional detachment					
The accumulation of losses renders burnout inevitable for those who seek work in palliative care					
Adjuvant therapies are important in managing pain					
It is crucial for family members to remain at the bedside until death occurs					
The philosophy of palliative care is compatible with that of aggressive treatment					
Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain					
Palliative care benefits include enhanced quality of life for the patient and family					
Palliative care benefits include skilled care for terminally ill patients.					
As a patient nears death; the physician should withdraw from his/her involvement with the patient					
The family should be involved in the physical care of the dying person					
It is difficult to form a close relationship with the family of a dying member					

Section III. Assessing Knowledge towards Palliative Care

Part I

Questions	Non	Weak	Good	Very Good	Excellent
How would you rate your experience in managing pain in palliative patients?					
How would you rate your experience in managing other palliative care symptoms (constipation, nausea and vomiting, anorexia, etc.)?					
How would you rate your experience in conducting family counseling and breaking bad news					

Part II

1- Palliative care is different from traditional care because palliative care:
   A. I don’t Know
   B. Is curative.
   C. Is equivalent to hospice care.
   D. Is focused on comfort, rather than cure.
   E. Is equivalent to end-of-life care
   F. Withdraws care.

2- Which of the following members of the healthcare team are important to the delivery of palliative care?
   A. I don't Know
   B. Physicians
   C. Nurses
   D. Dietitians
   E. Physical and occupational therapists
   F. All of the above

3- Which of the following statements about pediatric palliative care is NOT true?
   A. The palliative care team can help determine at what level a child or adolescent can participate in care decisions,
   B. Children of all diagnoses are eligible for palliative care,
   C. Children can die anywhere, including the ICU,

   D. The palliative care team assumes primary care for the child once enrolled
   E. The palliative care team can help the family make difficult decisions, even when not at the end of life.

4- Which of the following is a good time to involve a palliative care team?
   A. When the child is at a stage of treatment where the risk of suffering is high
   B. When the primary medical team is having difficulty managing the child's physical symptoms
   C. When there is misunderstanding among the family members about the best way
   D. to move forward in the care of their child
   E. [4] When there is disagreement among the medical staff about how to proceed with a child's care
   F. All of the above

5- Which of the following is NOT an important communication principle when discussing palliative care or sensitive topics?
   A. Minimize the use of medical jargon,
   B. Ask the family how much they want to know,
   C. Remain sensitive to the amount of time the provider is talking versus listening,
   D. If you are not sure of an answer, it is recommended to say you don't know,
   E. When families become emotional or saddened by the news, it is recommended to step out of the room and ask to resume the conversation later.

6- Children less than 11 years old cannot reliably report pain, so clinicians should rely solely on the parent's assessment of the child's pain intensity.
   A. True
   B. False

7- How would you address spiritual issues and your concerns to the child's family?
   A. Connect with spiritual counselor or pastoral care according to the child's religion and wish of the family?
   B. Listen with empathy
   C. Impose your own view
   D. Understand child's family reaction to the to the losses of their child's life

8- When do you institute palliative care discussion?
   A. During diagnosis
   B. when the disease progress
   C. At the end of life

9- Do you inform to the family their child's is terminal stage?

A. Yes
B. No
C. Depending on family's wishes
D. Inapplicable

10-What are the factors you consider when dealing with the family terminally ill child?

A. Spiritual /religious
B. Medical situation
C. Culture
D. Psychological conditions

11-How do you address psychological issues of the child during child care?

A. Emotional support
B. Counseling child's family
C. Play with child according to age
D. Hide the truth about prognosis of the disease

12-In your current practice whom do you involve in the decision-making process related child condition?

A. Child according to age
B. Family
C. My own
D. Other health professional

13-Types of pain medication /analgesics commonly used in your practice for Pain

A. Paracetamol suppository syrup
B. Codeine
C. Morphine

14-How do you assess children pain?

A. Using tools for assessment
B. Observation
C. Grade with face
D. Intensity

15-Information communication to the family of the terminally ill child depends on

A. Family's ability to assimilate
B. Their involvement of decision making.
C. Your willingness to disclose information