

**EXPERIENCE AND KNOWLEDGE AND ATTITUDES OF PARAMEDIC TOWARDS
END-OF-LIFE CARE IN SAUDI ARABIA****Abdullah Mohammed A. Alsamhari***

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ABSTRACT

The job of "Paramedic" has appeared in the context of changing primary care service provision, which is ostensibly causing the need for emergency ambulance services to increase. This study aims to assess experience and knowledge and attitudes of paramedic towards final-stage care. Access to treatment for patients who do not already get end-of-life care (EoLC) services may be improved by enhancing the clinical practice of EMS paramedics to proactively identify patients with EoLC requirements. This study seeks to determine if ambulance paramedics presently identify EoLC patients, are aware of identification recommendations, and think this position is suitable for their practice in order to inform the development of this function. **Methodology:** Analytic cross sectional study design to discuss experience and knowledge and attitudes of paramedic towards end-of-life care in Saudi Arabia. The study sample was selected via the systematic random sampling method. We recruited 140 paramedics. **Results:** According to level of experience of paramedics towards end-of-life care with degree (Agree) which means that the high degree of the experience of paramedic towards final-stage care, the total degree is 71.0% that suggests high level of experience of paramedics. According to level of knowledge of paramedic towards final-stage care, the total degree is 61.3% that suggests high level of knowledge of paramedics. According to level of attitude of paramedic towards end-of-life care, the total degree is 68.79% that suggests high attitude of paramedics. **Conclusion:** Results concluded that experience and knowledge and attitudes of paramedic towards end-of-life care in Saudi Arabia.

KEYWORDS: Experience, knowledge, attitudes, paramedic, end-of-life.**INTRODUCTION**

The job of "Paramedic" arose in the context of changing primary care service delivery, which is ostensibly causing the need for emergency ambulance services to increase. Due to these chances, People with mild illnesses and injuries may be able to be diagnosed and treated by paramedics and other medical experts. Such patients frequently phone typical emergency lines (999) to present, or Other groups that provide unplanned care have suggested them. In order to fulfill the NHS's mission of "treating the right patients in the right place at the right time," paramedics may reduce the number of people unintentionally admitted to hospitals by nearly 50%. There are further prospects in the shape of expanded responsibilities in critical care and the community treatment of chronically ill patients (Woollard, 2006).

The majority of palliative patients would to get their care at home, and when the course of their illness is almost complete, home is also where they choose to pass away. However, For this patient group, primary healthcare is

not always readily available and is usually provided by friends, family, or residential care providers who lack the confidence to do so. In primary care, paramedics and the ambulance service are the patient's initial point of contact since anxious caregivers often call emergency services for rapid aid as soon as they see the unpleasant and unexpected indicators of a disease worsening or dying. It's critical to understand the role paramedics play in palliative and end-of-life care, as well as whether or not this patient demographic requires their presence (Blackmore, 2022).

The task of providing end-of-life care to patients frequently falls on paramedics. To do this, they need to be able to effectively communicate with family members and caregivers, comprehend their legal responsibilities, and know when to refrain from unwelcome involvement. The purpose of this study was to assess how well paramedics were prepared for various end-of-life care abilities throughout their training, as well as to determine paramedics' attitudes regarding end-of-life (EOL)

circumstances and how often they face them (Stone et al., 2009).

When a patient at the end of their life is transferred from a nursing home to the emergency department, it may not be the best decision and may not turn out well, yet transfer in these situations is, tragically, all too often. There isn't much published research on the decisions paramedics make when providing final-stage care. The aim of this research is to investigate the decisions paramedics make when requested to move residents in nursing homes who are reaching the end of their life (Murphy-Jones & Timmons, 2016).

AIM OF THE STUDY

This study aims to assess experience and knowledge and attitudes of paramedic towards final-stage care. Access to treatment for patients who do not already get end-of-life care (EoLC) services may be improved by enhancing the clinical practice of EMS paramedics to proactively identify patients with EoLC requirements. This study seeks to find out if paramedics on ambulances now recognize EoLC patients and are knowledgeable about identification guidelines, and think this position is suitable for their practice in order to inform the development of this function (Eaton-Williams et al., 2020).

OBJECTIVES

- 1) Assess experience of paramedic towards care at the end of life.
- 2) Assess knowledge of paramedic towards care at the end of life.
- 3) Assess attitudes of paramedic towards care at the end of life.

Research Questions

The current investigation will respond to the following query:

1. What is the experience of paramedic towards care at the end of life?
2. What is the knowledge of paramedic towards care at the end of life?
3. What is the attitudes of paramedic towards care at the end of life?

Literature review

At the end of their lives, many patients want to receive care at home. These terminally sick people are seen by paramedics in response to emergency calls regarding various home health issues. For patients receiving palliative care, around half of these visits are required for symptom management or a general decline in health. It appears that the most prevalent symptoms for which paramedic assistance is required are pain and breathing issues. However, only a tiny percentage of all crises are connected to palliative care, and the care of patients in this category has not historically been seen as the primary responsibility of paramedics. Lifesaving has always been the paramedic's primary responsibility. They

have dealt with end-of-life patients without being aware of their plans of care or medical history. It is only recently that paramedics have begun to participate in prearranged end-of-life care at home (Pulst et al., 2020).

The North Karelia paramedic end-of-life care protocol was initiated in 2015. It seeks to improve the home delivery of end-of-life care by giving paramedics a more significant role. An analysis of 306 paramedic visits conducted under this procedure in a prior research revealed that 58% of patients enrolled under it required a paramedic visit, most frequently for the purpose of symptom management. Without going to the emergency department, the paramedics could handle the majority of the issues at home or by moving the patient to the prearranged end-of-life care unit (Surakka et al., 2022).

In the UK, paramedics are a crucial aspect of community end-of-life care (EoLC), especially in light of the dearth of terminal care professionals who provide coverage after hours. Despite this, there are still several obstacles preventing them from providing such treatment in a truly efficient manner. Before identifying some of the obstacles to efficient paramedic EoLC supply and offering instances of Working together in the UK that try to solve them, this article offers a brief historical review of paramedic practice. The author expects that by doing this, EoLC lead by paramedics would improve. Readers from different nations will be able to connect to these findings given the parallels in the global growth of paramedic education (Brady, 2014).

The patient's plan for last care should be reviewed and managed by the paramedics as necessary. Certain procedures were taken if the strategy did not succeed in resolving the issue. These contained recommendations for managing symptoms (pain, respiratory distress, nausea, decline in mental status, seizures, and bleeding), as well as instructions that included videos accessible on mobile devices for using The analgesic device operated by the patient. Using the protocol's recommendations, paramedics were allowed to manage at home symptoms of the patient, but they may also contact a doctor on call or take them to the hospital ward designated for end-of-life care if that was necessary (Surakka et al., 2020).

METHODOLOGY

Overview

The study's participants and the tools used are introduced in this chapter. Additionally, a detailed presentation of the research methodology, design, and data analysis is provided. The purpose of this study is to determine Saudi Arabian paramedics' experiences, knowledge, and attitudes on end-of-life care.

Research design

Analytic cross sectional study design to discuss experience and knowledge and attitudes of paramedic towards end-of-life care in Saudia Arabia.

In addition to the quantitative data, qualitative data about the attitudes of paramedics in Saudi Arabia about end-of-life care will be gathered through focus groups, interviews, and observations. The data will be evaluated using descriptive statistics to look for any patterns or trends.

The purpose of this study is to evaluate paramedics' attitudes, knowledge, and experience with end-of-life care. Developing the proactive identification of patients with end-of-life care (EoLC) needs within ambulance paramedic clinical practice may enhance treatment access for people who do not currently get EoLC services. In order to guide the establishment of this role, this study aims to ascertain if ambulance paramedics already identify EoLC patients, are aware of identification suggestions, and believe this position is appropriate for their practice (Eaton-Williams et al., 2020).

Participants

The study sample was selected via the systematic random sampling method. We recruited **140** paramedics.

Instruments

The study tool consists of two sections as follows.

First section Demographic Data

It will concern with Participants personal data as age, gender, address, marital status and educational level.

Second section Knowledge, experience and attitude assessment Tool

A questionnaire was created and validated to evaluate primary caregivers' attitudes, knowledge, and experience with EoLC in patients. The primary caregiver filled out the standardized study questionnaire with the researcher's assistance. The Fisher's exact test and the Chi-square test were used to assess the category data. The Chi-square test and nonparametric tests were used to determine the intergroup correlation (Garg et al., 2021).

The validity of tools

Making sure the instrument will measure what it was intended to measure is what constitutes validating it. Validity also refers to the tool's ability to incorporate all necessary components in the analysis and, on the other hand, to include paragraphs and words that are easy to comprehend for all users.

The validity of the study tools was confirmed by.

1- Face validity

The researcher sought the assistance of a panel of experts whose participation was necessary to ascertain the questionnaires' content validity in order to guarantee the validity of the instruments. The jurors were directed to check the wording, coherence, and application of the questionnaire items. The questionnaire had some minor revisions as a consequence of the comments and recommendations that were received.

2- Internal consistency validity

The internal validity of the tool's items was determined in order to establish the construct's validity. The correlation coefficient between the sample's responses to each item and the questionnaire's overall score was computed, yielding the following results:

Table 1: Pearson correlation coefficient between each item and the total score of the questionnaire.

No	Person correlation coefficient	No	Person correlation coefficient
1	.619**	11	.718**
2	.635**	12	.684**
3	.520**	13	.598**
4	.727**	14	.603**
5	.656**	15	.798**
6	.778**	16	.543**
7	.656**	17	.627**
8	.695**	18	.773**
9	.638**	19	.803**
10	.709**	20	.741**

It is clear from the previous table that the correlation coefficients between the items and the total score of the questionnaires were all good and acceptable. All of them were significant at a significance level less than or equal to (0.05), which indicates high internal validity of the questionnaire items.

The reliability of tools

The reliability of the study tool means that the tool will give approximately the same results when applied multiple times to the same sample. This means to what degree the study tool gives close readings each time it is used.

Or it means ensuring that the response will be approximately the same if it is repeatedly applied to different people at different times.

The reliability of the questionnaires was checked through Cronbach's alpha Coefficient and the results are shown as the following.

Axis	N	Cronbach's alpha Coefficient
Experience	5	.789
Knowledge	5	.854
Attitude	10	.903
Total Degree	20	.879

From the table we conclude that the total degree of Cronbach's alpha to the questionnaire was (0.879) which is high value indicate that the reliability of the questionnaire is highly satisfactory.

Data Analysis

Collected data will be tabulated and analyzed using suitable statistical test will be used to test the significance of the result obtained and SPSS.

Ethical concerns

- 1) The research ethical approval will be obtained from paramedics' services organization before conducting the study.
- 2) An approval will be obtained from paramedics' services organization.
- 3) Those who consent to participate in the study will get a brief explanation of its goal.
- 4) The investigator shall guarantee the preservation of the subject data's confidentiality and anonymity.
- 5) Each participant will be made aware of their freedom to decline participation in the study and their right to withdraw at any moment.

RESULTS AND DISCUSSION

Introduction

Data collection will be analyzed, tabulated and represented using suitable statistical methods.

The following questions were addressed in the questionnaire in order to fulfill the study's goals:

First Characteristics of the research sample

The sample's frequencies and percentages were determined based on the following characteristics:

1- Age

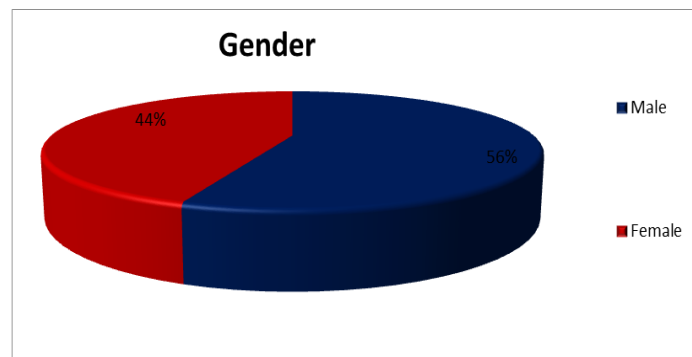
The ages of the study sample ranged from 22 to 50 years, with mean ages (34.72) and a standard deviation of (11.66)

2- Gender

Table 2: Distribution of students by gender.

Gender	Frequency	Percent
Male	78	55.7%
Female	62	44.3%
Total	140	100.0

From the above table we conclude that (55.7 %) of the participants are males, and (44.3%) of the participants are females.

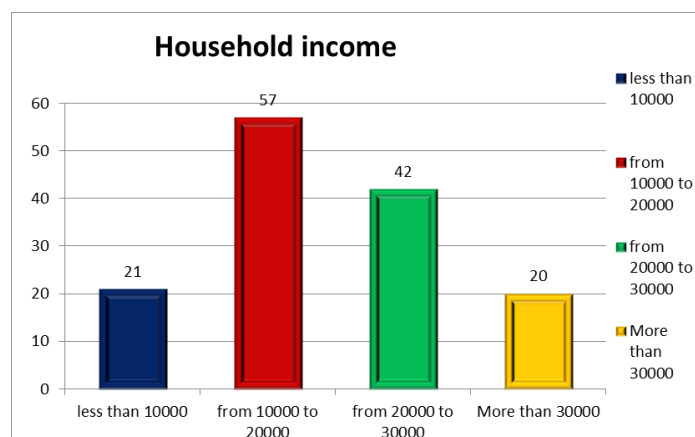


3- Household income

Table 2: House hold income.

Household income	Frequency	Percent
less than 10000	21	15.0%
from 10000 to 20000	57	40.7%
from 20000 to 30000	42	30.0%
More than 30000	20	14.3%
Total	140	100.0

From the above table we conclude that (40.7 %) of the participants their Household income is from 10000 to 20000, (30%) of the participants their Household income is from 20000 to 30000, (15%) of the participants their Household income is less than 10000, and (14.3%) of the participants their Household income is More than 30000.

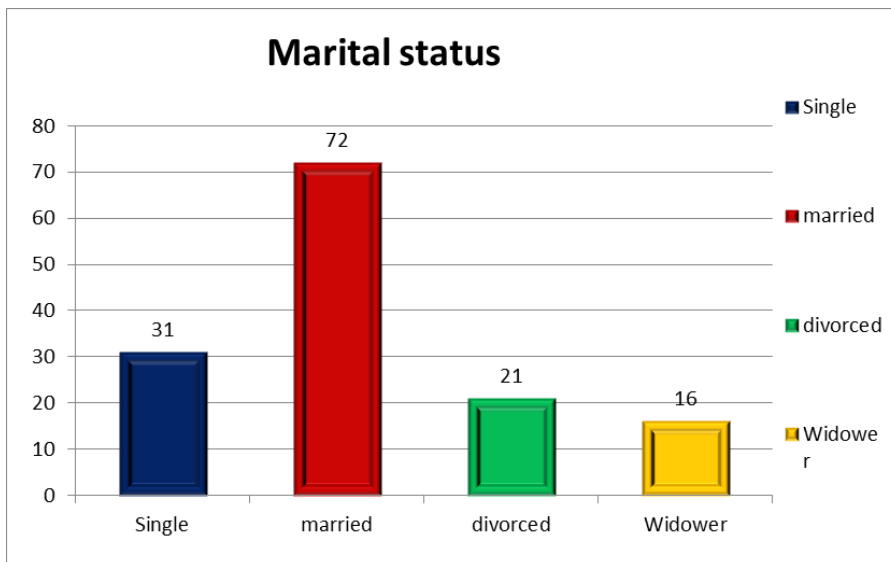


4- Marital status

Table 3: Marital status.

Marital status	Frequency	Percent
Single	31	22.1%
married	72	51.4%
divorced	21	15.0%
Widower	16	11.4%
Total	140	100.0

From the above table we conclude that (51.4 %) of the participants are married, (22.1%) of the participants are single, (15%) of the participants are divorced, and (11.4%) of the participants are Widower.



Second, answer the Research Questions

The first question What is the experience of paramedic towards end-of-life care?

To answer this question, the frequencies and percentages of the sample’s responses on the first axis were calculated, and the results were as follows.

Table 4: The frequencies and Percentages of The Sample’s Responses on The First Axis.

No.	Item	Agree		Disagree		Rank	Degree
		N	%	N	%		
1	When it comes to end-of-life care, paramedics benefit greatly from teamwork.	97	%69.3	43	%30.7	4	Agree
2	A well-defined paramedic team vision contributes to improved care and service delivery.	103	%73.6	37	%26.4	2	Agree
3	True collaboration is made possible by members of the team communicating with one another.	90	%64.3	50	%35.7	5	Agree
4	It is the care team's duty to assist residents in becoming ready for death.	109	%77.9	31	%22.1	1	Agree
5	Discussing death tends to depress those who are nearing the end of their lives.	98	%70.0	52	%37.1	3	Agree
Total degree of the axis		71.0%		30.4%			Agree

From the above table we conclude that the experience of paramedic towards end-of-life care with degree (Agree) which means that the high degree of the experience of paramedic towards end-of-life care where: (77.9%) of participant agree the term of “It is the care team's duty to assist residents in becoming ready for death”, (73.6%) of participant agree the term of “A clear vision of the paramedic a team ensures improved care

and service delivery”, (70%) of participant agree the term of “Talking about death tends to make residents at the end of life more discouraged”, (69.3%) of participant agree the term of “Teamwork brings real benefits to paramedics at the end of life”, and (64.3%) of participant agree the term of “Communication between members of the team is sufficient to allow true teamwork”



The second question What is the knowledge of paramedic towards end-of-life care?

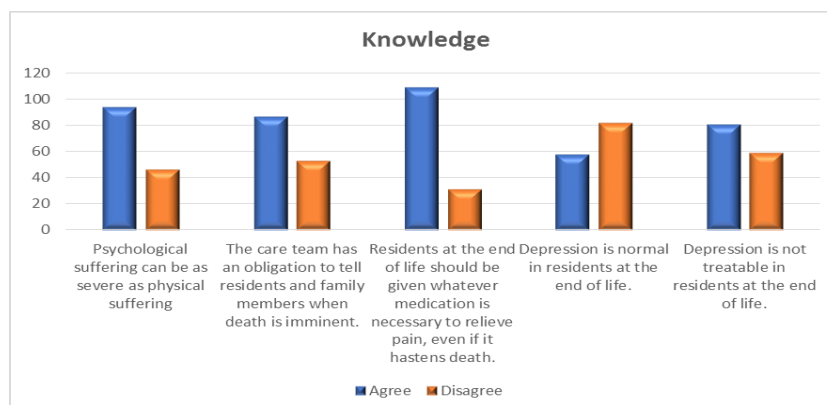
To answer this question, the frequencies and percentages of the sample’s responses on the second axis were calculated, and the results were as follows.

Table 5: The frequencies and percentages of the sample’s responses on the second axis.

No	Item	Agree		Disagree		Rank	Degree
		N	%	N	%		
1	anguish on a psychological level can .be just as bad as physical anguish	94	%67.1	46	%32.9	2	Agree
2	When a resident's death is imminent, the care team has a duty to notify .them and their families	87	%62.1	53	%37.9	3	Agree
3	It is important to administer pain relief medicine to residents who are nearing the end of their life, even if it means accelerating their demise.	109	%77.9	31	%22.1	1	Agree
4	In inhabitants nearing the end of their .lives, depression is common	58	%41.4	82	%58.6	5	Agree
5	At the end of life, depression in .residents cannot be treated	81	%57.9	59	%42.1	4	Agree
Total degree of the axis		61.3%		38.7%		Agree	

From the above table we conclude that the knowledge of paramedic towards end-of-life care with degree (Agree) which means that the high degree of the knowledge of paramedic towards end-of-life care where: (67.1%) of participant agree the term of “Psychological suffering can be as severe as physical suffering”, (62.1%) of participant agree the term of “The care team has an obligation to tell residents and family members when

death is imminent.”,(77.9%) of participant agree the term of “Residents at the end of life should be given whatever medication is necessary to relieve pain, even if it hastens death.”, (41.4%) of participant agree the term of “Depression is normal in residents at the end of life.”, and (57.9%) of participant agree the term of “Depression is not treatable in residents at the end of life.”



The third question What is the attitude of paramedics towards end-of-life care?

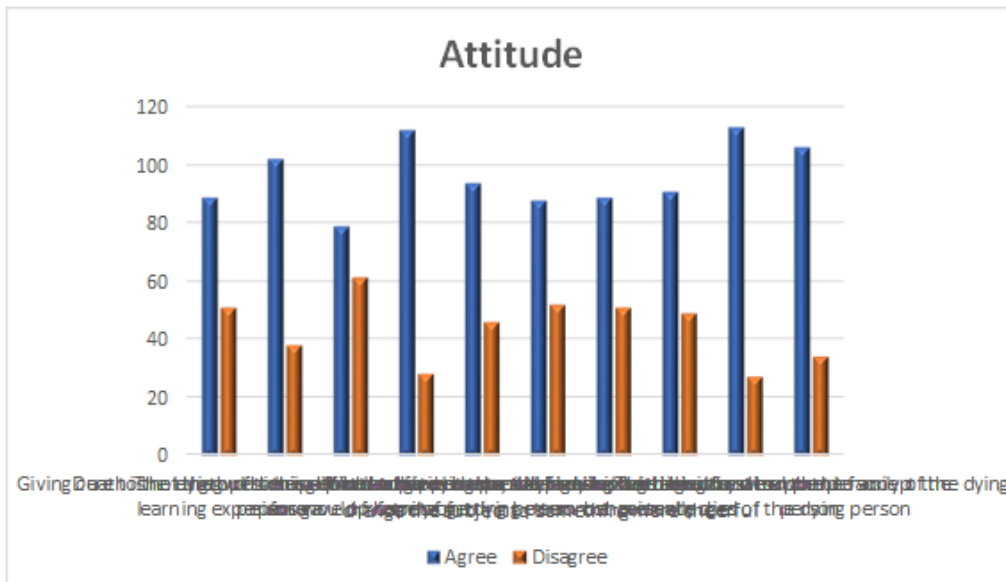
To answer this question, the frequencies and percentages of the sample’s responses on the third axis were calculated, and the results were as follows.

Table 6: The Frequencies And Percentages of The Sample’s Responses on Third Axis.

No	Item	Agree		Disagree		Rank	Degree
		N	%	N	%		
1	Caring for the dying is a valuable educational experience	89	%63.57	51	%36.43	7	Agree
2	.The worst thing that can happen to a person is not death	102	%72.86	38	%27.14	4	Agree
3	I would be annoyed by the amount of time needed to provide care for a dying individual	79	%56.43	61	%43.57	10	Agree
4	When the patient I was caring for passed away, I would be disappointed	112	%80.00	28	%20.00	2	Agree
5	Building a deep bond with a dying person's family is a challenging task	94	%67.14	46	%32.86	5	Agree
6	When a sick person queries, "Am I dying?" It would be preferable, in my opinion, to switch to a happier topic	88	%62.86	52	%37.14	9	Agree
7	When I'm not around, I wish the person I'm taking care of passes away	89	%63.57	51	%36.43	8	Agree
8	.I would want to flee if the individual were to truly die	91	%65.00	49	%35.00	6	Agree
9	Families require emotional support in order to accept the dying person's altered conduct	113	%80.71	27	%19.29	1	Agree
10	.The dying person's relatives should also get care	106	%75.71	34	%24.29	3	Agree
Total degree of the axis		68.79%		31.21%		Agree	

From the above table we conclude that the attitude of paramedics towards end-of-life care with degree (Agree) which means that the high degree of the attitude of paramedics towards end-of-life care where: (63.57%) of participant agree the term of “Giving care to the dying person is a worthwhile learning experience”, (72.86%) of participant agree the term of “Death is not the worst thing that can happen to a person.”, (56.43%) of participant agree the term of “The length of time required to give care to a dying person would frustrate me”, (80%) of participant agree the term of “I would be upset when the dying person I was caring for gave up hope of getting better”, (67.14%) of participant agree the

term of “It is difficult to form a close relationship with the family of a dying person.”, (62.86%) of participant agree the term of “When a patient asks, “Am I dying?” I think it best to change the subject to something more cheerful”, (63.57%) of participant agree the term of “I would hope the person I am caring for dies when I am not present”, (65%) of participant agree the term of “I would feel like running away when the person actually died”, (80.71%) of participant agree the term of “Families need emotional support to accept the behavior changes of the dying person”, and (75.71%) of participant agree the term of “Care should extend to the family of the dying person.”



Main points in results

This study's primary goal is to determine Saudi Arabian paramedics' experiences, knowledge, and attitudes on end-of-life care.

The questionnaire was created with the goal of achieving the study's aims and providing answers to its questions. The following research questions are addressed by the questionnaire, which was created by looking at some of the instruments and measurements of previous studies pertinent to the current study issue:

1. What is the experience of paramedic towards care at the end of life?
2. What is the knowledge of paramedic towards care at the end of life?
3. What is the attitudes of paramedic towards care at the end of life?

DISCUSSION

According to results of demographic data of this study, The ages of the study sample ranged from 22 to 50 years. According to gender, results concluded that (55.7 %) of the participants are males, and (44.3%) of the participants are females.

According to level of experience of paramedics towards end-of-life care with degree (Agree) which means that the high degree of the experience of paramedic towards end-of-life care, the total degree is 71.0% that suggests high level of experience of paramedics. According to level of knowledge of paramedic towards end-of-life care, the total degree is 61.3% that suggests high level of knowledge of paramedics. According to level of attitude of paramedic towards end-of-life care, the total degree is 68.79% that suggests high attitude of paramedics.

According to Surakka et al., (2022) found that More than eighty percent of the paramedics concurred that the procedure enhanced the quality of end-of-life care and made it easier for them to care for the patients. 65.5% of paramedics thought that providing end-of-life care was meaningful employment, while 75.5% said that visiting patients was helpful. Challenges with psychological factors, communication, symptom management, and their involvement in end-of-life care were mentioned by the paramedics. Managing the most prevalent symptoms and interacting and communicating with the families were highlighted as educational requirements. It has been discovered that using a patient-controlled analgesia device can be a helpful teaching tool (Surakka et al., 2022).

Juhrmann et al., (2021) also examined paramedic autonomy of practice. According to a research, 26% of paramedic participants used their own discretion to decide whether to continue or stop resuscitation on a patient who was terminally ill. This study poses a crucial query: in dangerous end-of-life scenarios, how can paramedics strike a balance between individual judgment and adherence to professional practice guidelines? Under

these conditions, professional support from ambulance-appointed physicians may once more provide paramedics with more assurance to use a palliative care strategy. A highly qualified profession, paramedics can assist individuals get end-of-life and palliative care in the comfort of their own homes while lowering unnecessary hospital admissions, especially in cases of palliative crises (Juhrmann et al., 2021).

A different investigation discovered that 706 answers in all were received. EMTs (34%) and paramedics (55%) provided the majority of answers. 96% of respondents said they had interacted with a hospice patient at least once, and 66% said they had done so more than ten times. Just 24% of respondents had any formal training in providing care for hospice patients. A sizable portion (86%) expressed interest in receiving more instruction in this field. Accessible advance directives were cited as a challenge by 72% of clinicians, family pressure for more aggressive treatment at 61%, and trouble contacting hospice staff at 48%. Additional end-of-life-specific curriculum components might close educational gaps, since EMS providers have shown a significant need for such training (Wenger et al., 2022).

CONCLUSION

The researcher came to the following conclusions based on the study's findings.

The paramedic's degree of agreement with end-of-life care indicates that they have a high level of experience with this type of care; similarly, their degree of agreement with end-of-life care indicates that they have a high degree of knowledge about this type of care; and finally, their degree of agreement with end-of-life care indicates that they have a high degree of attitude toward this type of care.

Recommendation

- Promoting collaboration among paramedics.
- Offering paramedics the required training programs to boost their productivity at work.
- When a resident or family member is about to die, paramedics should notify them.
- Even if giving people pain medication toward the end of their lives causes them to pass away sooner, paramedics should nonetheless administer it.
- In order to accept the dying person's altered conduct, families require emotional support.
- The dying person's relatives should also get care.

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