



CODEN [USA] : IAJPBB

ISSN : 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

<https://zenodo.org/records/13736392>
Available online at : <http://www.iajps.com>

Review Article

EXPERIENCES AND CHALLENGES OF EMS TECHNICIANS IN PROVIDING PALLIATIVE AND END-OF-LIFE CARE IN THE PREHOSPITAL SETTING: A SYNTHESIS STUDY

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Abstract:

This synthesis study explored the experiences and challenges faced by Emergency Medical Services (EMS) technicians in providing palliative and end-of-life care within the prehospital setting. As EMS increasingly encountered patients with chronic and terminal illnesses, the integration of palliative care principles became vital for improving patient outcomes and family satisfaction. Despite the critical role of EMS, many technicians reported feeling inadequately prepared for the emotional and ethical complexities of end-of-life situations. A systematic literature review identified key themes, including the need for enhanced training, emotional and ethical strain, inconsistent care protocols, and the importance of integrating palliative care into EMS practices. The findings revealed a significant gap in formal training regarding palliative care, which led to varying care delivery and heightened emotional stress among technicians, particularly when family wishes conflicted with medical directives. Additionally, the absence of standardized protocols exacerbated these challenges and hindered effective decision-making. The study recommended the development of structured training programs, the establishment of clear guidelines for palliative care, and the fostering of collaboration between EMS and palliative care specialists. This research underscored the necessity of addressing these gaps to enhance the quality of care provided by EMS technicians and improve the overall well-being of both patients and providers during vulnerable moments in healthcare. Future research should focus on evaluating the effectiveness of training programs and implementing standardized protocols to further support EMS personnel in delivering compassionate end-of-life care.

Keywords: Emergency Medical Services (EMS), Palliative Care, End-of-Life Care, Technician Training, Systematic Literature Review

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Please cite this article in press Mohammad Ali Alshaike et al., **Experiences And Challenges Of EMS Technicians In Providing Palliative And End-Of-Life Care In The Prehospital Setting: A Synthesis Study**, *Indo Am. J. P. Sci*, 2024; 11 (09).

1. INTRODUCTION:

Emergency Medical Services (EMS) play a critical role in prehospital care, often being the first point of contact for patients experiencing acute medical crises. Traditionally, the focus of EMS has been on life-saving interventions; however, the evolving landscape of healthcare increasingly recognizes the importance of palliative care (Waldrop et al., 2014). Palliative care aims to improve the quality of life for patients with serious, life-limiting illnesses by addressing their physical, emotional, and spiritual needs (World Health Organization, 2015). As the population ages and chronic diseases become more prevalent, EMS technicians are frequently confronted with the complexities of end-of-life care in the prehospital setting.

EMS regularly provides care to individuals with chronic diseases who are nearing the end of life (Guru et al., 1999; Stone et al., 2009; Lamba et al., 2013). Despite this reality, only a limited number of EMS agencies have adopted palliative care protocols (Ausband et al., 2002; Jensen et al., 2013; Lamba et al., 2013). Ausband (2002) indicated that merely 5% of American EMS agencies had established such protocols (Ausband et al., 2002). Barriers to expanding the EMS role in palliative support include misconceptions about palliative care within EMS, the public's understanding of EMS capabilities, a lack of pertinent research, and insufficient training and education in palliative care for EMS personnel (Waldrop et al., 2014).

In instances where home-based palliative support is unavailable, individuals nearing the end of life may call EMS during emergencies. In these situations, EMS can assist with symptom management, address complications related to medical devices, or provide support when caregivers feel overwhelmed or lack the necessary skills (Quest, 2011). EMS may also be contacted to confirm whether a person is dying or has already passed away (Meischke et al., 2009).

Palliative and end-of-life care in the prehospital context presents unique challenges and opportunities.

EMS technicians often find themselves managing situations where resuscitation may not align with the patient's wishes or where family dynamics complicate decision-making processes (Waldrop et al., 2014). The integration of legally binding documents, such as Do Not Resuscitate (DNR) orders, can significantly influence the care provided by EMS (McKinley et al., 2022). Understanding how these documents are interpreted and acted upon in real-time is crucial for improving care outcomes and providing compassionate support for families during critical moments.

Despite the growing recognition of the role of EMS in providing end-of-life care, studies indicate that technicians often feel inadequately prepared for these situations (Clemency et al., 2020). Challenges include navigating conflicts between family wishes and medical directives, managing emotional responses from grieving families, and the lack of structured training in palliative care (Waldrop et al., 2020). These challenges can lead to feelings of frustration and inadequacy among EMS technicians, impacting their ability to provide effective and compassionate care during critical moments. Given these complexities, this synthesis study aims to explore the experiences and challenges faced by EMS technicians in delivering palliative and end-of-life care, shedding light on their roles and the opportunities for improving care in the prehospital environment.

1.1. Statement of the Problem

The current training and operational protocols for EMS may not fully equip technicians to handle the complexities of palliative and end-of-life care. This gap can result in suboptimal care for patients and distress for their families during vulnerable moments. As the need for such care becomes more prevalent, it is essential to explore the experiences and challenges faced by EMS technicians to identify areas for improvement in training and practice.

1.2. Significance of the Study

This research is important as it highlights the critical intersection of emergency medical services and palliative care. By examining the experiences and challenges faced by EMS technicians, the study aims to contribute to the development of better training programs and support systems. Enhancing the preparedness of EMS personnel in delivering palliative care can lead to improved patient outcomes and greater satisfaction for families during end-of-life scenarios.

1.3. Research Objectives

- To explore and document the experiences of EMS technicians in providing palliative and end-of-life care.
- To identify and analyze the challenges faced by EMS technicians in the prehospital setting when delivering end-of-life care.
- To evaluate current training programs and propose recommendations for enhancing support and education for EMS technicians in palliative care.

1.4. Definitions of key terms

1.4.1. Emergency Medical Services (EMS):

Medical services provided in a pre-hospital environment under emergency situations. EMS providers are typically responsible for the transport of patients from the location of their emergency to hospitals or other care centres.

1.4.2. End of Life Care:

Health care received by an individual during the final days, weeks and months of life when suffering from a terminal disease (Johnston, 2014). Care provided during this phase of life can be palliative and/or curative in intent.

1.4.3. Palliative Care:

Care that focuses on improving quality of life through the provision of symptom relief, spiritual and psychological support from diagnosis to the end of life for patients and their families (World Health Organization (WHO), 2015).

2. METHODOLOGY:

2.1. Research Design

This study will adopt a systematic literature review approach to synthesize existing research on the experiences and challenges faced by Emergency Medical Services (EMS) technicians in providing palliative and end-of-life care. This methodology allows for a comprehensive examination of the literature, ensuring that all relevant studies are identified, assessed, and integrated into the analysis.

2.2. Literature Search Strategy

The electronic databases PubMed, CINAHL, ScienceDirect, and Web of Science were searched for articles published in English from 2010 to 2023. The search terms included “palliative care” or “end-of-life care”. Google Scholar was also utilized to broaden the search using the same terms.

2.2.1. Inclusion Criteria:

- Studies that focus on the experiences of EMS technicians in palliative or end-of-life care settings.
- Empirical research articles published in peer-reviewed journals.
- Studies published in English.
- Research conducted within the last 20 years to ensure relevance.

2.2.2. Exclusion Criteria:

- Studies that do not specifically address EMS or prehospital care contexts.
- Literature reviews, editorials, or opinion pieces that do not provide original empirical data.
- Articles not focused on palliative care or end-of-life considerations.

After applying these criteria, the selected studies will be organized for analysis, ensuring a diverse representation of geographical contexts and healthcare systems.

2.3. Data Analysis

2.3.1. Data Extraction

Data extraction involved a comprehensive review of the selected studies to gather relevant information on the experiences and challenges faced by EMS technicians in providing palliative and end-of-life care. Key elements extracted included author names, publication year, study design, sample size, and specific findings related to EMS experiences in palliative care. This structured extraction process ensured that critical insights regarding training needs, emotional challenges, and operational barriers were captured, facilitating a thorough understanding of the current landscape of palliative care within EMS.

2.3.2. Quality Assessment

The quality of the included studies was assessed using established criteria tailored for qualitative and mixed-methods research. This assessment focused on aspects such as the clarity of research objectives, appropriateness of the methodology, rigor of data collection and analysis, and the credibility of the findings. By applying these criteria, we aimed to ensure that only studies of sufficient quality were included in the synthesis, thereby enhancing the reliability of the conclusions drawn from the literature.

2.3.3.Data Synthesis

Following data extraction and quality assessment, the information was synthesized to identify common themes and patterns in the experiences of EMS technicians. This synthesis involved thematic analysis, categorizing findings into key areas such as training gaps, emotional responses to end-of-life situations, and the impact of legal directives on decision-making. By integrating qualitative insights from the literature, the synthesis aimed to provide a comprehensive overview of the challenges faced by EMS personnel in palliative care and to highlight potential areas for improvement in training and practice.

2.3.4.Ethical Considerations

As this study involves a review of existing literature and does not include direct interaction with human subjects, ethical approval was not required. However, ethical considerations were upheld by ensuring proper citation and acknowledgment of all sources utilized in the review. This commitment to academic integrity is vital in maintaining the credibility of the research and respecting the contributions of original authors in the field.

3. Literature Review

Andy Muise's 2015 study, "Palliative Support by Emergency Medical Services for Persons at the End of Life: A Population-Based Analysis of Need," examines the role of Emergency Medical Services (EMS) in providing palliative support to individuals at the end of life. The study employs a linked administrative database from Nova Scotia, analyzing data from 1995 to 2009 alongside EMS patient care records from early 2014. The sample consists of decedents and EMS calls related to end-of-life care. Findings reveal a significant need for enhanced palliative support within EMS, particularly for individuals with complex non-cancer conditions, low enrollment in palliative care services, and a considerable number of EMS calls that could benefit from palliative interventions. The research underscores the necessity of improving EMS capabilities to address the palliative care needs of this population effectively.

Deborah Waldrop et al. (2015) aimed to explore prehospital providers' perceptions regarding end-of-life 911 calls, signs and symptoms of dying, and medical orders for life-sustaining treatment (MOLST). Utilizing a cross-sectional survey methodology, the study involved 178 prehospital providers from a single EMS agency in New York. Key findings indicated that calls to nursing homes were frequent, with 47.8% occurring every shift, while MOLST forms were rarely

seen (57.9% reported rarely or never). The most frequently recognized signs of dying included diagnosis (76%), hospice involvement (82%), and apnea (75%). The study highlights the need for improved education and care integration among prehospital, hospice, and palliative medicine.

The study by Georgina, et. al. (2021) aimed to enhance palliative and end-of-life care provided by UK ambulance services. Through a collaborative approach involving two ambulance trusts and Macmillan Cancer Support, the study utilized improvement programs to educate paramedics and refine care pathways. The sample included paramedics from the South Western Ambulance Service and London Ambulance Service. Key findings indicated that targeted education and inter-professional collaboration significantly improved staff confidence, patient care pathways, and reduced unnecessary hospital admissions for palliative patients, highlighting the potential for integrating palliative care into paramedicine.

Christoph HR Wiese et al. (2012) aimed to determine international recommendations and current practices for managing palliative emergencies in outpatient settings. A prospective questionnaire was distributed to leading experts in palliative and emergency medical care across various continents. Out of 150 surveys sent, a 61% response rate was achieved, resulting in participation from 92 experts in 35 countries. The findings highlighted significant structural and national differences in outpatient palliative care, emphasizing the necessity for early integration of Palliative Care Teams, clear end-of-life discussions, and enhanced emergency medical training for providers.

Cassandra Barnette Donnelly et al. (2017) aimed to assess the knowledge, attitudes, and experiences of Emergency Medical Services (EMS) providers when caring for hospice patients. A survey study was conducted, collecting both quantitative and qualitative data from EMS providers. The survey achieved a 100% response rate from 182 EMS providers. The results indicated that while the majority of EMS providers had experience caring for hospice patients, only a small percentage had received formal training on hospice care. Many providers expressed a strong need for a structured curriculum to improve their knowledge and skills in this vital area.

Deborah P. Waldrop (2019) focused on the challenges and practices related to end-of-life care in prehospital settings. A qualitative analysis was performed on data collected from EMS providers regarding their experiences and perceptions in managing end-of-life

situations. Although the specific sample size was not detailed, the study included a diverse range of EMS personnel. The findings underscored the emotional and professional challenges faced by EMS providers in these critical scenarios, indicating a pressing need for enhanced training and support to improve care delivery.

Christoph HR Wiese et al. (2012) sought to gather insights from experts on the management of palliative emergencies in outpatient care. A prospective questionnaire-based investigation targeted experts in palliative and emergency care. Of the 150 surveys distributed, responses were received from 92 experts across 35 countries. The study revealed considerable differences in practices related to palliative emergencies, advocating for standardized recommendations and comprehensive training for emergency responders to ensure effective care in these situations.

Christoph, et. al. (2010) investigated the protocols for treating palliative care patients experiencing cardiac arrest in prehospital settings. Through a retrospective investigation, it analyzes cases involving palliative care patients treated by emergency medical services (EMS) during cardiac arrest incidents. The findings reveal significant challenges that EMS providers face when addressing the needs of these patients, emphasizing the necessity for tailored treatment protocols that respect patient preferences and prioritize quality of life considerations.

Caleb, et. al. (2023) aimed to map the existing literature on the intersection of emergency medical services (EMS) and palliative care, focusing on the types of literature available, key findings, and knowledge gaps. Utilizing a predefined search strategy across multiple databases, the authors reviewed empirical studies published between 2000 and 2022, ultimately including 56 studies from an initial pool of 10,725 articles. The review identifies four primary domains: the role of EMS in palliative care, challenges faced by EMS providers, benefits of integrating EMS with palliative care, and recommendations for enhancing this integration. Key findings indicate a generally positive perception of EMS roles in palliative contexts, highlight the need for improved training, and suggest that collaboration between EMS and palliative care systems could yield significant advantages in patient care.

In the study by Caleb Hanson Gage et al. (2020), the authors aimed to explore the perspectives of advanced life support (ALS) providers in South Africa regarding

the significance, feasibility, and barriers to implementing pre-hospital palliative care. Utilizing a qualitative design, the researchers conducted semi-structured one-on-one interviews with six experienced ALS providers from the private emergency medical services (EMS) sector. The analysis of the interviews revealed four main categories: the necessity of pre-hospital palliative care, the role of EMS providers in delivering such care, the challenges they face, and suggestions for implementation. Participants acknowledged the critical need for palliative care in the pre-hospital context but highlighted significant barriers, including inadequate training and systemic issues within the EMS framework. They suggested that these challenges could be addressed through the development of guidelines, enhanced training, and a multidisciplinary approach.

Lamba et al. (2013) study aimed to identify effective strategies for integrating palliative care into emergency medical services (EMS) in out-of-hospital settings. The authors employed a descriptive approach to outline actionable steps that EMS could take to incorporate palliative care into their practice. While specific details about the sample were not provided, insights from EMS professionals informed the findings. The study identified four critical strategies for successful integration: enhancing training for EMS providers in palliative care, developing clear protocols for palliative interventions, fostering collaboration with palliative care specialists, and encouraging a cultural shift within EMS towards a more holistic view of patient care that includes palliative considerations. These strategies are essential for improving the quality of care provided to patients facing life-limiting illnesses.

Pierre-Nicolas, et al. (2014) analyzed a series of cases to investigate the role of prehospital emergency services in delivering palliative care. The authors conducted a retrospective analysis of documented cases where EMS intervened in palliative situations. Although the specific number of cases was not detailed, the study highlighted the significant impact of EMS providers as first responders in palliative scenarios. The findings indicated that EMS personnel could greatly enhance patient comfort and overall care at the end of life. The authors emphasized the necessity for targeted training in palliative care for EMS providers to improve the quality of service delivered to patients nearing the end of life, thereby ensuring that their unique needs are met in prehospital settings.

Parkinson (2014) aimed to assess the feasibility and necessity of implementing palliative care within the

prehospital context. The researchers employed a qualitative analysis focused on the experiences and opinions of EMS providers regarding palliative care delivery. While specific details about the sample were not provided, the study involved EMS personnel with relevant operational experience. The findings concluded that there is an urgent need for palliative care within prehospital settings, identifying challenges such as a lack of training, limited resources, and an EMS culture predominantly focused on life-saving measures. The authors recommended the development of palliative care protocols and enhanced training for EMS personnel to better address the needs of patients requiring palliative interventions, thereby improving overall care quality in emergency situations.

Waldrop et al. (2021) aimed to explore the decision-making processes of prehospital emergency providers when responding to end-of-life calls. The researchers focused specifically on how state-authorized documents, like Do Not Resuscitate (DNR) orders, influenced these decisions. The study employed in-depth, semi-structured interviews with a sample of 50 prehospital emergency providers across four agencies in a northeastern state. Through these interviews, the researchers sought to elicit participants' experiences and perspectives regarding online medical direction (OLMD) during complex end-of-life scenarios. The findings revealed five key themes regarding the use of OLMD: Termination of Resuscitation (TOR), Family Revoked DNR, Missing Documents, No Documents and No CPR, and Unusual Situations. The study highlighted the critical role of OLMD in supporting providers through ethical dilemmas, particularly when families requested resuscitation against established wishes. Overall, the research underscored the necessity of collaborative relationships with OLMD to navigate the complexities of end-of-life care in the prehospital setting.

Another second study, also by Waldrop et al. (2020) aimed to investigate the ethical challenges faced by prehospital emergency providers in end-of-life decision-making. The focus was on how the presence or absence of advance directives, such as DNR or MOLST (Medical Orders for Life-Sustaining Treatment), affected the treatment decisions made in urgent care situations. Similar to the first study, this research utilized qualitative methods, conducting semi-structured interviews with a sample of prehospital emergency providers. The study aimed to gather insights into the challenges and moral dilemmas these providers faced when responding to emergencies involving patients nearing death. The main findings revealed that providers experienced significant ethical

tension when family members requested interventions contrary to existing directives. Issues such as missing documents and the absence of clear guidance led to increased stress among emergency providers. The study concluded that OLMD plays a vital role not just in providing technical medical support, but also in guiding ethical decision-making in high-stress situations involving end-of-life care.

3.1. Overview of EMS and Palliative Care

Emergency Medical Services (EMS) play a crucial role in providing immediate medical assistance to individuals at various stages of health, including those nearing the end of life. Existing literature emphasizes the need for integrating palliative care principles within EMS practices to address the complex needs of patients with life-limiting conditions. For instance, Andy Muise's 2015 study highlights a significant gap in palliative support offered by EMS, particularly for individuals with non-cancer conditions. By analyzing EMS data in Nova Scotia, the study underscores the necessity for enhanced capabilities to provide effective palliative interventions. Similarly, research by Caleb Hanson Gage et al. (2020) explores the perspectives of advanced life support providers in South Africa, emphasizing the critical need for palliative care in prehospital settings. Collectively, these studies suggest that while EMS can significantly contribute to palliative care, there remains a pressing need for improved training and integration of palliative principles within their operational frameworks.

3.2. Challenges in EOL Care

The challenges faced by EMS technicians in delivering end-of-life (EOL) care are well-documented across various studies. Waldrop et al. (2015) found that prehospital providers frequently encounter calls from nursing homes, yet encounter barriers such as a lack of familiarity with Medical Orders for Life-Sustaining Treatment (MOLST) forms. This lack of familiarity complicates decision-making during critical moments. Additionally, Christoph HR Wiese et al. (2012) identified significant structural differences in international practices concerning palliative emergencies, indicating that EMS providers often lack standardized protocols for managing EOL situations. Donnelly et al. (2017) further emphasized that although many EMS providers have experience with hospice patients, formal training in hospice care is limited, leading to inconsistencies in care delivery. These findings highlight that EMS providers face ethical dilemmas, emotional stress, and a lack of resources, all of which hinder their ability to deliver optimal EOL care.

3.3. Gaps in the Literature

Despite the growing body of research, there remains a notable gap in the literature regarding the specific experiences of EMS providers in EOL care. While multiple studies highlight the need for improved training and integration of palliative care within EMS, few explore the nuanced experiences and perceptions of EMS personnel in managing EOL cases. For instance, while Waldrop et al. (2021) and other studies provide insights into decision-making processes and ethical tensions, they do not comprehensively address the individual experiences and challenges faced by EMS providers in the field. Additionally, studies often focus on quantitative data without delving deeply into qualitative insights that could inform better practices. This lack of focused research on EMS experiences indicates a critical area for future exploration, particularly in understanding how EMS providers navigate the complexities of EOL care and the support they require to enhance their effectiveness in this vital aspect of healthcare.

4. Findings

The exploration of the experiences and challenges faced by Emergency Medical Services (EMS) technicians in providing palliative and end-of-life care reveals several significant themes. Through a synthesis review of the existing literature, key insights emerged regarding the training needs, emotional burdens, and operational barriers that technicians encounter in the prehospital setting.

4.1. Key Themes Identified

The analysis highlighted four primary themes that characterize the landscape of palliative care within EMS:

4.1.1. Need for Enhanced Training:

A consistent finding across multiple studies is the pronounced gap in formal training for EMS personnel in palliative care. Research by Donnelly et al. (2017) underscored that, while many EMS providers have experience with hospice patients, only a small percentage received structured training on hospice care. This deficiency in training leads to technicians relying heavily on their instincts rather than established clinical guidelines, resulting in varied care delivery.

4.1.2. Emotional and Ethical Strain

The emotional toll of managing end-of-life situations is significant. Studies by Waldrop et al. (2020) and Wiese et al. (2012) revealed that EMS technicians frequently encounter ethical dilemmas, particularly when family wishes conflict with medical directives. Such situations can create profound emotional stress,

making it challenging for technicians to navigate the complexities of care while also managing their own emotional responses.

4.1.3. Inconsistent Protocols:

The literature indicates a lack of standardized protocols for addressing palliative care in EMS. Wiese et al. (2012) highlighted that many EMS agencies do not have clear guidelines for managing end-of-life situations, which can lead to inconsistencies in practice. Lamba et al. (2013) further reinforced the need for structured approaches to ensure that technicians can respond effectively to the unique needs of dying patients.

4.1.4. Integration of Palliative Care:

Effective integration of palliative care principles into EMS practices is crucial for enhancing the quality of care provided to patients nearing the end of life. Muise (2015) and Gage et al. (2020) emphasized that while EMS has the potential to significantly contribute to palliative care, there remains an urgent need for improved training and a cultural shift within EMS that prioritizes holistic patient care.

4.2. Experiences of EMS Technicians

The experiences of EMS technicians in palliative care are complex and often fraught with challenges. Many technicians report feeling unprepared to manage the emotional and ethical aspects of end-of-life situations. Donnelly et al. (2017) found that although many EMS providers had experience with hospice patients, their lack of formal training left them feeling uncertain in their roles. Consequently, technicians often find themselves in high-pressure environments where they must make critical decisions with little guidance.

Furthermore, EMS providers frequently encounter patients in need of compassionate support, yet they often lack the necessary skills to address the intricate emotional dynamics involved. Studies by Waldrop et al. (2015) and Gage et al. (2020) indicated that technicians regularly face complex cases involving dying patients, amplifying their desire for better education on recognizing signs of dying and managing family dynamics effectively.

4.3. Challenges Encountered

Several specific challenges were identified in the literature regarding the provision of end-of-life care by EMS technicians:

4.3.1. Navigating Family Dynamics

EMS technicians often experience conflicts between family requests and established medical directives, particularly in high-stress scenarios where emotions

are heightened. Waldrop et al. (2020) highlighted how these conflicts can complicate decision-making processes and create additional stress for technicians.

4.3.2.Lack of Familiarity with Legal Documents

Many EMS providers reported infrequent encounters with crucial legal documents like Do Not Resuscitate (DNR) orders, complicating their ability to make informed decisions during emergencies. Waldrop et al. (2015) noted that this lack of familiarity can lead to delays in care and increased anxiety for both patients and family members.

4.3.3.Resource Limitations

The absence of structured support and resources for managing palliative care situations significantly hinders EMS providers' ability to deliver optimal care. Wiese et al. (2012) pointed out that without clear guidelines and access to palliative care specialists, technicians may struggle to provide the level of support that patients and families deserve.

4.3.4.Emotional Toll

The emotional strain associated with responding to end-of-life calls can lead to burnout and feelings of frustration. As highlighted in studies by Waldrop et al. (2019) and Gage et al. (2020), the cumulative effect of these emotional burdens can impact the overall well-being of EMS technicians, further complicating their ability to deliver compassionate care.

5. DISCUSSION:

5.1. Interpretation of Findings

The findings of this synthesis study reveal critical challenges and opportunities in the provision of palliative and end-of-life care by Emergency Medical Services (EMS) technicians. A consistent theme across the literature is the urgent need for enhanced training. Donnelly et al. (2017) emphasize that while many EMS providers have experience with hospice patients, only a small percentage have received formal training in hospice care. This lack of training can hinder their capacity to provide effective and compassionate care, reinforcing the need for structured educational programs.

The emotional and ethical strains faced by EMS technicians were highlighted by multiple studies, including those by Waldrop et al. (2020) and Wiese et al. (2012). These studies illustrate the difficulties technicians encounter when family wishes conflict with established medical directives, often resulting in heightened stress. This aligns with findings from Waldrop et al. (2021), which showed that the presence or absence of legal documents, such as Do Not Resuscitate (DNR) orders, can complicate decision-

making processes, further exacerbating the emotional toll on EMS providers.

Additionally, the lack of standardized protocols for managing end-of-life care was a recurring theme. Wiese et al. (2012) found significant structural differences in international practices regarding palliative emergencies, indicating that many EMS agencies lack clear guidelines. This inconsistency can lead to varied responses to similar situations, as noted by Lamba et al. (2013), which could jeopardize patient care.

The integration of palliative care principles into EMS practices is vital for meeting the complex needs of dying patients. Muise (2015) and Gage et al. (2020) stress the importance of this integration, suggesting that EMS has a significant role to play in the delivery of palliative care. The findings of this study support the notion that without a cultural shift towards prioritizing holistic patient care within EMS, the potential for improving care outcomes remains limited.

5.2. Implications for Practice

The implications of these findings for EMS training and policy development are profound. First, there is an immediate need to enhance training programs for EMS personnel. Incorporating insights from studies by Waldrop et al. (2015) and Gage et al. (2020), EMS agencies should develop structured curricula focused not only on technical skills but also on emotional intelligence, ethical decision-making, and communication strategies. Such training will better prepare technicians to navigate the complexities of end-of-life care.

Moreover, the establishment of standardized protocols for palliative care within EMS is essential. As highlighted by Wiese et al. (2012), clear guidelines are necessary to ensure consistency in care delivery. Creating comprehensive protocols that include frameworks for decision-making, legal document handling, and family communication can enhance the quality of care provided by EMS technicians, as recommended by Lamba et al. (2013).

Finally, fostering collaboration between EMS and palliative care specialists can significantly enhance the capabilities of EMS in delivering end-of-life care. The collaborative approach highlighted in the study by Georgina et al. (2021) illustrates the benefits of inter-professional teamwork in improving patient care pathways and reducing unnecessary hospital admissions. By implementing these recommendations, EMS agencies can not only improve the quality of care

for patients nearing the end of life but also enhance the overall well-being of their technicians, leading to a more compassionate and effective emergency medical response system.

6. CONCLUSION:

This synthesis study has illuminated the significant challenges and experiences faced by Emergency Medical Services (EMS) technicians in providing palliative and end-of-life care. Key findings indicate that there is a pronounced need for enhanced training in palliative care, as many technicians feel inadequately prepared to handle the emotional and ethical complexities of these situations. The lack of standardized protocols contributes to inconsistencies in care delivery, further complicating the role of EMS in end-of-life scenarios. Additionally, the emotional toll on technicians can lead to burnout and frustration, which ultimately impacts patient care. These findings underscore the critical importance of integrating palliative care principles into EMS practice to improve patient outcomes and family satisfaction during vulnerable moments.

7. Recommendations for Future Research

To further advance the understanding of EMS roles in palliative care, several avenues for future research are suggested:

- Conduct in-depth qualitative interviews with EMS technicians to explore their personal experiences, emotional responses, and coping strategies in palliative care situations.
- Investigate the effectiveness of specific training programs designed to enhance palliative care skills among EMS personnel.
- Examine the effects of implementing standardized protocols for palliative care within EMS agencies. Studies could assess changes in patient care quality, technician confidence, and family satisfaction before and after protocol adoption.
- Conduct comparative studies across different regions or countries to understand how cultural, legal, and systemic factors influence the provision of palliative care by EMS.
- Explore the long-term effects of providing palliative care training on EMS personnel, including the potential for reduced burnout rates and improved job satisfaction.

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