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Paramedics' Perceptions of Their Role in End of Life Care

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Abstract

Aims

Critical decisions made in the field by paramedics influence where patients die if their end of life (EOL) wishes are upheld and how appropriately health-care resources are used. The aim was to gauge perceptions as to the current and future role of paramedics in EOL care.

Methods

A qualitative approach collated data from two focus group interviews (group 1 n=7, group 2 n=8). Focus groups were audio recorded, transcribed, and analysed using Attride–Stirling's framework for thematic network analysis.

Results

The global theme 'Paramedics' Perceptions of Their Role in End of Life Care' emerged from five organising themes: 1. education and training; 2. current clinical practice guidelines; 3. communication; 4. environment and 5. staff support. Poor communication between those involved in patient care, lack of support from current clinical practice guidelines, limited training in managing EOL scenarios and inadequate staff supports were highlighted by participants. The clinical environment also effected how challenging practitioners found the call.

Conclusion

The pathway to improving EOL care must include an emphasis on improvements in practitioner education and training, enhanced communication between all those involved in a patient's care and offering non didactic practice guidelines that are practitioner driven and patient-focused. It must also include increased psychological supports for paramedics dealing with EOL patients.

List of in Abbreviations for Terms used in this study.

ALS: Advanced Life Support	IHF: Irish Hospice Foundation
AP: Advanced Paramedic	IVF: Invitro Fertilisation
BLS: Basic Life Support	MEDICO Cork: HSE National 24hr Emergency Telemedical Support Unit
CF: Cystic Fibrosis	MI: Myocardial Infarction
CFR: Cardiac First Responder	NAS: National Ambulance Service
CISM: Critical Incident Stress Management	PEA: Pulseless Electrical Activity
CNM: Clinical Nurse Manager	PHECC: Pre-Hospital Emergency Care Council
COPD: Chronic Obstructive Pulmonary Disease	PHEM: Pre-Hospital Emergency Medicine
CPG: Clinical Practice Guideline	ROSC: Return of Spontaneous Circulation
CPR: Cardiopulmonary Resuscitation	RTC: Road Traffic Collision
DNAR: Do Not Attempt Resuscitation	SID: Sudden Infant Death
ED: Emergency Department	South Doc: Out of hours GP service in south region
EMT: Emergency Medical Technician	STEMI: ST Elevation Myocardial Infarction
EOL: End of Life	UCC: University College Cork
HSE: Health Service Executive	

Introduction

Irish paramedical practice has evolved considerably from purely patient transport to the provision of a broad range of patient centred health services from emergency to community public health, to interhospital critical care services. Considerable educational and regulatory changes have allowed paramedics to provide care to a much broader range of patients in an increasingly comprehensive manner.[1]

The Irish Hospice Foundation (IHF), found that 74% of Irish people want to be cared for at home in their final days,[2] a percentage increasing due to hospital/care home visiting restrictions associated with the COVID-19 pandemic.[3] Distressing signs and symptoms associated with expected end of life (EOL) often result in unscheduled involvement of paramedical services.[4] Decisions made by paramedics in the community are pivotal in determining how and where patients die and whether or not their EOL requests are honoured.[5]

Clinical practice guidelines (CPGs) for paramedics in Ireland traditionally focused on the management of acute medical emergencies and major trauma, with the first guidelines regarding caring for end of life patients being introduced in August 2021, following the completion of this study.[6] A MEDICO Cork 2016 audit found that 9% of calls made by paramedical services to their helpline are regarding terminating/withholding of resuscitation in patients at the EOL.[7] EOL care is a paradigm shift for a profession that has traditionally focused on intervening to save lives.[8] Our study aims to investigate paramedics' perceptions of their role in EOL care in Ireland by exploring current practice regarding EOL care in the National Ambulance Service (NAS), identifying if there is a rural/urban variation in current practice and gauging perceptions amongst paramedical staff as to their future role in enhancing EOL care.

Methods

Ethical approval was granted for this study through the UCC Social Research Ethics Committee and the National Ambulance Service (NAS) Research Committee.

An interpretative qualitative design was employed, using focus group interviews with paramedical practitioners as the means of data collection.

A convenience sample of NAS staff undergoing routine in-service training in March 2019 were invited to participate, given a range of practitioners from emergency medical technician (EMT) to advanced paramedics (AP) serving both urban and rural areas were in attendance. All agreeable participants signed consent and agreed a code of conduct. A representative from in-service Critical Incident Stress Management (CISM) was available to all participants should they need support, given the emotive nature of the interviews.

Table 1: *Focus Group Question Schedule.*

Topic	**Questions**
Understanding of EOL care	According to the Irish Hospice Foundation end of life care refers to the care of people with advanced life-limiting conditions, for whom death within 1-2 years is likely, as well as those in the terminal phase of illness. It also encompasses care of the bodily remains of the deceased person. Do you agree with this definition? Does this definition fit with the patient population that you see?
Current paramedical role in end of life care	Describe scenarios in your current practice where you experience end of life care. As a group, please rank these scenarios from least challenging to most challenging. What makes these individual scenarios challenging? What currently exists to support your management of these scenarios?
Rank/environment specific challenges	Describe challenges unique to the paramedic grade in managing these scenarios How might being based in an urban or rural environment affect these scenarios?
Future paramedical role in end of life care	Ideally, what do you believe would enhance end of life care in each of the identified scenarios? Apart from calling for advanced paramedic support could you make some suggestions for overcoming difficulties for paramedic and EMT grades? Please agree on the top 3 changes to practice, which you believe would have the greatest impact on pre-hospital end of life care in the future

The focus groups were moderated using an interview guide (Table 1) developed from a similar, validated study carried out in Monash University.[9] The interviews were audio recorded and transcribed for review by the researcher. Attride-Stirling's framework for thematic network analysis was used to analyse the data following both focus group interviews.[10]

Results

Current experience of end of life care

A total of fifteen paramedical practitioners (Male: Female was 4:1; EMT (n=2), Paramedics (n=7), APs (n=6); Urban: Rural 3:2) participated in two focus groups (Group A n=7, Group B: n=8).

Both focus groups disagreed with the IHF definition of EOL care (Table 1), reporting that they would not usually consider patients with two years to live to be EOL. Participants explained that they more frequently see patients with a number of days or weeks left to live rather than years. Participants also described a proportion of the patient population they provide EOL care to as people who do not have a diagnosed life limiting condition but are at the EOL due to an acute medical or trauma emergency. In fact, when asked to rank the scenarios in which paramedics experience EOL care from most to least challenging, (Table 2) the top five scenarios ranked by each group were acute conditions.

Table 2: *Scenarios where paramedics experience end of life care (ranked from most to least challenging)*

Focus Group 1	**Focus Group 2**
Sudden Infant Death (SIDS)	Sudden Infant Death (SIDS)
Trauma	Trauma
Burn victims	Self-harm and suicide
Self-harm and suicide	Cardiac arrest
Drowning	Sepsis
Poisoning	STEMI
Pain management	Cancer
Exacerbation of chronic illness (e.g. COPD, CF)	Abdominal aortic aneurysm rupture
Alcohol and drug dependency	Elderly/nursing home patients
Cardiac arrest and MI	Exacerbation of chronic illness (e.g. COPD, CF)
Nursing home patients	Stroke
Natural death in the elderly	Patient transfers

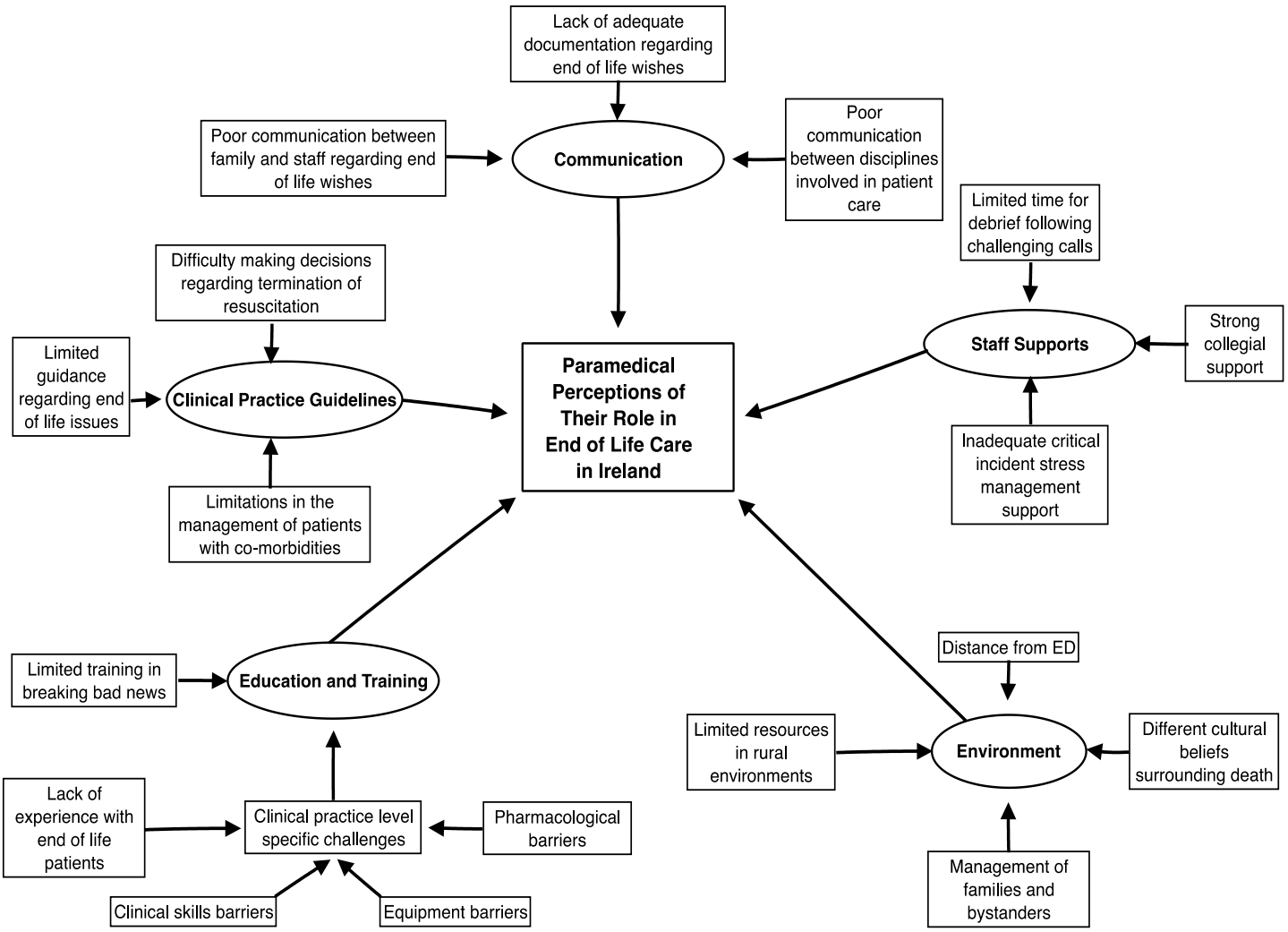

Figure 1: *Emergence of global theme 'paramedics' perceptions of their role in end of life care in Ireland.*

Education and Training

Participants highlighted practitioner distress in their inability to appropriately manage many EOL scenarios. Both focus groups described a limited emphasis on EOL care and breaking bad news during curriculum development and training. Practitioners report relying on personal experiences in practice.

> *…when you are speaking to that widow or widower …you think about how you felt, and you bring on that to be sympathetic to them.*

Discussions ensued surrounding the important role experience plays in managing an EOL scene. Clinical grade influences practice. EMTs and paramedics described pharmacological limitations to proving appropriate EOL care when compared to their advanced paramedic colleagues.

It was suggested that telemedical support be directly available to all grades of practitioner (currently only available to APs) with an expanded medication formulary available in every ambulance for use following telemedical consultation.

Current Practice Guidelines

Working within the confines of didactic clinical practice guidelines frustrated practitioners. Both groups expressed a need for non-didactic CPGs that guided practitioner decision-making, allowing a patient's age, co-morbidities and quality of life to be considered. Appropriate guidance surrounding termination of resuscitation attempts continues to be an issue.

Communication

Poor communication between family and staff regarding EOL wishes and ceiling of care, especially in the nursing home population, were repeatedly described. Confusion amongst both the public and staff in long-term care facilities surrounding adequate EOL documentation was apparent with conflicting communication between healthcare disciplines. Participants expressed frustrations in their inability to contact a patient's regular care provider (GP, community nurses, palliative care teams) and described how such communication challenges result in inappropriate transfer to hospital.

Working Environment

Rural practitioners noted that longer journey times with patients can be beneficial in gathering important details including medical history, treatment plans and personal wishes. Both focus groups discussed how distance from hospital and resource availability impacts EOL decision making, particularly during cardiac arrest.

> *…doing CPR for [long rural] journeys is exhausting not just physically but emotionally as well.*

Difficulties in managing family dynamics, especially during unexpected decline in health or acute emergency were discussed. A case was used to highlight the complexities of simultaneously managing infant resuscitation, personal, team and family emotions. Another example illustrated how in many EOL calls the family become the focus, as the patient themselves may have an altered level of consciousness.

> *… it's often the families that become your patient…You facilitate them saying goodbye for the last time you know. So you facilitate that kind of threshold moment…*

As Ireland becomes more diverse, paramedical practitioners are increasingly coming into contact with differing cultural beliefs and practices to their own. Extreme examples of families behaviour and practices at the patients EOL were provided which were unusual to the practitioners at the time, but were later found to be entirely culturally normal.

Staff Support

Whilst some concern was expressed surrounding regional inconsistencies, both focus groups agreed that CISM was an invaluable resource, highlighting the excellent support they receive from their colleagues and describing the ambulance service as a tight knit community. Call volume was raised as a barrier to adequate time to debrief after a difficult call.

> *We can be on the go all day, not getting lunches, not getting breaks and they're sending you from call to call and if you get a bad call, you're expected to go back out straight away to do another call.*

Inconsistency in staff support across Irish Emergency Services was expressed with a case used to highlight how Gardaí at the same scene were allotted leave automatically, in order to protect their mental health, whilst paramedics were just expected to go back on duty.

Discussion

Paramedical experience of EOL Care differs from the definitions provided by the Irish Hospice Foundation. It is fundamental to appreciate that paramedical practice to date is far more emergent in nature, frequently encountering EOL patients without a pre-existing diagnosis. Practitioners have tremendous insight into the significant challenges they and their patients face and are clearly motivated to provide appropriate EOL care. Practitioner led solutions are evident across a range of themes, including Education and Training, Clinical Practice Guidelines, Communication, Working Environment and Staff Support.

Our work adds to similar studies which call for a development of Paramedical Practitioners knowledge surrounding EOL care, supported by CPGs that guide as opposed to dictate options to practitioners. Such strategies must be backed by real life alternatives to transportation, such as a toolbox of care options that is supported by novel telemedical solutions.[11] Though caring for the EOL patient has recently been introduced to the paramedical curriculum and practice guidelines[6] there are still improvements needed to better support paramedics, patients and their families.

We provide further weight to previously published communication barriers to EOL care.[12] Currently no framework is in place for paramedical practitioners to contact patient's palliative care teams to support multidisciplinary decision making.

"Arriving as strangers"[13] into a patient's home is typical in the role of an Irish paramedic. Practitioners are dependent on what can be assessed from the immediate patient environment, what the patient or family can articulate about their condition.[14] Collaboration and increased communication between all those involved in EOL care is necessary to meet the patient's needs.[15] Further work is needed to support practitioners, patients, and their families with the integration of EOL care provision.[16]

The validity of EOL documentation is clearly identified as a cause of concern for paramedical practitioners when attending EOL patients. Increased education regarding EOL documentation, as well as discussions regarding EOL wishes between health care professionals and their patients, are needed to ensure patient's EOL wishes are adhered to.[17]

This study found that the environment, in a more general sense, has an effect on the management of an EOL patient. Issues such as rural/urban access to resources, distance to the ED, management of family members and bystanders, breaking bad news, offering psychological support, and differing cultural experiences of death were highlighted. Education regarding cultural beliefs surrounding death and dying is necessary to support practitioners in appropriately managing EOL patients.[18]

Debriefing following a critical incident has been shown to improve staff emotional well-being.[19] Interventions such as self-care and team support to aid practitioners dealing with challenging EOL situations have been useful in similar jurisdictions.[20] Our findings therefore echo previously identified domains of effective EOL care including death trajectories, rapid assessment, goals of care, communication, care of the family and psychosocial aspects of death.[21,22]

Declaration of Conflicts of Interest:
Neither author of this paper has any conflicts of interest to declare.

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