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Knowledge Gaps, Opioid Phobia, and Perceptions of Good Death Among Healthcare Workers in Northern Sri Lanka: A Cross-Sectional Survey

Mathurahan S

mathurahan@gmail.com

Ministry of Health

Rahulan K

Ministry of Health

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Abstract

Background

Palliative care remains seriously underdeveloped across South Asia, and the distance between what people need and what they receive keeps widening. Among the forces driving that gap, two stand out: healthcare workers who are undertrained in palliative principles, and an entrenched opioid phobia that leads providers to withhold or underdose morphine even when patients are in serious pain. Sri Lanka shares these regional shortcomings, and the Northern Province has been almost entirely absent from the research literature.

Methods

A descriptive cross-sectional survey was conducted among 168 healthcare workers (response rate 84%) at District General Hospital Vavuniya, Northern Sri Lanka, between April and June 2023. A pre-tested, self-administered questionnaire covered palliative care knowledge, opioid-related attitudes, ethical decision-making, and personal end-of-life preferences. Findings were analysed using SPSS and compared with surveys from Sri Lanka, India, and other low- and middle-income settings.

Results

While 97.0% (n = 163) of respondents had heard of palliative care, only 52.4% (n = 88) could correctly define it, and just 25.6% (n = 43) believed it should begin at the time of diagnosis. Pain relief was affirmed as a human right by 97.0% (n = 163). Yet 76.2% (n = 128) of respondents, including 75.0% of doctors, believed high-dose morphine is addictive, and only 35.1% (n = 59) could identify common oral morphine side effects. On ethical matters, 67.0% (n = 113) prioritised patient autonomy over family preferences, though 71.4% (n = 120) were unwilling to withdraw futile life-sustaining treatment. Most respondents (77.4%; n = 130) wished to die at home; 60.1% (n = 101) valued family presence at death; and only 39.3% (n = 66) wanted a spiritual or religious leader present.

Conclusions

Healthcare workers in this setting broadly support palliative care as a principle, but opioid phobia and factual knowledge gaps translate that support into inadequate clinical practice. End-of-life preferences reveal a community navigating between cultural tradition and growing personal autonomy. Closing this gap will require structured training that addresses what clinicians actually believe, regulatory reform that normalises opioid prescribing, and genuine investment in home-based palliative services.

Background

The World Health Organization estimates that around 40 million people require palliative care each year, and 78% of them live in low- and middle-income countries [1]. In South Asia, the numbers tell a difficult story. India alone has roughly 5.5 million people who need palliative services, yet fewer than 1% of them receive anything close to adequate care [2]. Across the region, the gap between need and provision reflects not just a shortage of resources, but also regulatory frameworks that restrict opioid access, workforces that have received little or no palliative training, and cultural attitudes toward opioids and death that have gone largely unchallenged for decades [3, 4].

Opioid phobia sits at the centre of this problem. When providers believe that therapeutic morphine doses will cause addiction, hasten death, or attract regulatory scrutiny, the result is withholding or underdosing analgesia for patients who are already suffering [5, 6]. Studies from Asia consistently document clinicians who treat opioids as a last resort, something given in the final hours rather than a first-line analgesic for moderate-to-severe pain across the disease course [7]. What makes opioid phobia particularly stubborn is that it persists even in clinicians who see patients on opioids regularly. Without structured education that directly addresses pharmacological facts, passive clinical exposure leaves the underlying misconceptions intact [8].

Sri Lanka reflects these regional difficulties. Palliative services are clustered in a small number of specialist centres, and most district-level hospitals function without dedicated palliative expertise [9]. Two earlier surveys, one among Sri Lankan nurses and one among recent medical graduates, found that clinicians held positive attitudes toward caring for dying patients alongside weak factual knowledge about opioid indications and side-effect profiles [9, 10]. The Northern Province adds further layers of complexity: a workforce still recovering from the structural damage of a long civil conflict, persistent gaps in specialist coverage, and a predominantly Tamil community whose end-of-life values have received almost no systematic study [11].

Beyond what clinicians know about opioids, how they think about dying matters too. Healthcare workers who have never examined their own values around death are less equipped to support patients and families through the process. Cross-cultural research shows that home death with family present is widely preferred across Asia, but attitudes toward non-disclosure of terminal prognosis, spiritual accompaniment at the deathbed, and the continuation of futile treatment vary considerably depending on religion, level of education, and professional background [7, 12]. In a setting where most healthcare workers come from the same community as their patients, understanding those values is not a peripheral concern. It is foundational to building palliative services that people will actually trust and use.

This study examines three questions among healthcare workers at District General Hospital Vavuniya: what is the level of palliative care knowledge, and where do misconceptions cluster; what ethical attitudes shape end-of-life decision-making; and what personal preferences define their sense of a good death. Findings are contextualised against comparable surveys from Sri Lanka, India, and other low- and middle-income settings.

Methods

Study Design and Setting

A descriptive cross-sectional study was conducted at District General Hospital Vavuniya, the only tertiary-care facility serving Vavuniya District in Northern Sri Lanka. Data collection took place between April and June 2023.

Participants

Two hundred healthcare workers were selected by simple random sampling from ward lists covering medical officers, nursing staff, and allied health professionals. To be included, participants had to be currently employed at the hospital and willing to take part. Staff on extended leave and the ten individuals who had participated in the pre-testing phase were excluded. Of the 200 questionnaires distributed, 168 were returned with sufficient completeness for analysis, giving a response rate of 84%.

Instrument

A structured, self-administered questionnaire was developed by adapting validated items from palliative care knowledge and attitude scales previously used in regional surveys [9, 10]. The tool was organised into four sections. The first collected sociodemographic information covering age, sex, religion, and practice setting. The second assessed palliative care knowledge using true/false and multiple-choice items on palliative definitions, hospice, total pain, and opioid side effects. The third used Likert-scaled statements to probe attitudes on opioid prescribing, patient autonomy, treatment withdrawal, and end-of-life decision-making. The fourth explored personal end-of-life preferences including preferred place of death, treatment choices, desire for advance knowledge of death, and the perceived roles of family and spiritual leaders. Before the main data collection, the questionnaire was pre-tested on ten healthcare workers not included in the main sample and revised for clarity. All responses were anonymous.

Statistical Analysis

Data were entered and analysed in SPSS version 26.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were generated for all items: frequencies and percentages for categorical variables, and means with standard deviations for continuous variables. Because the study was descriptive in aim, no formal inferential testing between subgroups was pre-specified. Where findings are particularly relevant to interpreting opioid-related results, frequencies are reported separately for doctors and non-physician staff.

Ethics

Ethical approval

was obtained from the Ethical Review Committee of the Regional Directorate of Health Services, Vavuniya. Administrative approval was granted by the Director of District General Hospital Vavuniya. Written informed consent was obtained from all participants before questionnaire administration. Participation was voluntary throughout, and all data were anonymised before entry and analysis.

Results

Sample Characteristics

Of the 168 respondents, 109 (64.9%) were female and 59 (35.1%) were male. The median age was 39 years. The majority, 96 respondents (57.1%), worked in town-based settings. In terms of religion, 101 respondents (60.1%) practised Saivism, a Hindu tradition, while the remaining respondents were Christian (n = 29, 17.3%), Buddhist (n = 23, 13.7%), Muslim (n = 13, 7.7%), or from other or unstated backgrounds (n = 2, 1.2%). Full sample characteristics are presented in Table 1.

Table 1
Sociodemographic characteristics of respondents (n = 168)

Characteristic	**n**	**%**
Sex		
Female	109	64.9
Male	59	35.1
Median age (years)	**39**	N/A
Practice Setting		
Town-based	96	57.1
Other	72	42.9
Religion		
Saivism (Hindu)	101	60.1
Christian	29	17.3
Buddhist	23	13.7
Muslim	13	7.7
Other / Not stated	2	1.2
Total	**168**	**100**

Note. *Percentages may not sum to exactly 100 due to rounding.*

Palliative Care Knowledge

Awareness of the term palliative care was widespread: 163 respondents (97.0%) had heard of it. Accurate knowledge, however, was considerably thinner. Only 88 respondents (52.4%) chose the correct definition from the options provided, and just 43 (25.6%) agreed that palliative care should be introduced at the time of diagnosis rather than reserved for the final stage of illness. Familiarity with hospice was somewhat lower: 129 respondents (77.0%) had heard the term, and 114 (68.0%) selected its correct definition.

On pain-related items, 163 respondents (97.0%) endorsed the view that access to pain relief is a human right, a position consistent with global ethical consensus [1, 3]. The concept of total pain was familiar to 92 respondents (54.8%), and 134 (79.8%) recognised that psychological factors shape the pain experience. One hundred and one respondents (60.0%) reported regular clinical contact with patients receiving opioid analgesia. Full knowledge and attitude findings are presented in Table 2.

Table 2
Palliative care knowledge and opioid-related beliefs among respondents (n = 168)

Survey Item	Correct / Yes (%)	Incorrect / No (%)	Don't Know (%)
General Awareness			
Heard of palliative care	97.0 (n = 163)	3.0 (n = 5)	N/A
Correctly defined palliative care	52.4 (n = 88)	47.6 (n = 80)	N/A
PC should begin at time of diagnosis	25.6 (n = 43)	74.4 (n = 125)	N/A
Heard of hospice	77.0 (n = 129)	23.0 (n = 39)	N/A
Correctly defined hospice	68.0 (n = 114)	32.0 (n = 54)	N/A
Pain relief is a human right	97.0 (n = 163)	3.0 (n = 5)	N/A
Pain and Opioid Knowledge			
Familiar with concept of 'total pain'	54.8 (n = 92)	45.2 (n = 76)	N/A
Psychological factors influence pain	79.8 (n = 134)	20.2 (n = 34)	N/A
Regular exposure to patients on opioids	60.0 (n = 101)	40.0 (n = 67)	N/A
Correctly identified oral morphine side effects	35.1 (n = 59)	64.9 (n = 109)	N/A
Believed high-dose morphine is addictive	76.2 (n = 128)	23.8 (n = 40)	N/A
Of whom: doctors who held this belief	75.0	25.0	N/A

Note. *PC = palliative care. N/A = not applicable for items with binary response options. Approximate n values are derived from reported percentages and total sample.*

Opioid-Related Knowledge and Attitudes

Despite the high proportion of respondents who regularly cared for patients on opioids, pharmacological knowledge was poor across the sample. Only 59 respondents (35.1%) correctly identified common side effects of oral morphine. More striking still, 128 respondents (76.2%) believed that high-dose morphine is highly addictive, a belief shared by 75.0% of the doctors in the sample. This pattern echoes surveys across South and Southeast Asia, where clinical contact with opioids has consistently failed to produce accurate prescribing knowledge when not accompanied by structured teaching [5, 7, 8].

Ethical Attitudes and End-of-Life Decision-Making

When faced with hypothetical conflicts, most respondents took a patient-centred position. 113 respondents (67.0%) said they would honour a competent patient's treatment decision even when the patient's family disagreed, and 110 (65.5%) accepted a patient's right to refuse further treatment despite a fatal prognosis. At the same time, 120 respondents (71.4%) stated they would be unwilling to withhold a treatment they considered futile from a terminally ill patient. This combination, affirming patient autonomy on one hand while resisting the withdrawal of active intervention on the other, has appeared in healthcare worker surveys from Portugal, India, and across East Asia [7, 12], suggesting it reflects something broader than local cultural specificity.

Perceptions of a Good Death and Personal End-of-Life Preferences

Asked to describe a good death in their own words, respondents most often offered three qualities: pain-free, sudden, and peaceful. Only 59 respondents (35.1%) said they would want advance notice of their own impending death. A slight majority, 98 respondents (58.3%), indicated they would prefer to forgo futile life-sustaining treatments if they were diagnosed with an incurable illness themselves. One hundred and thirty respondents (77.4%) preferred to die at home rather than in hospital, and 101 (60.1%) wanted family and close friends present at the time of death.

Only 66 respondents (39.3%) wanted a spiritual or religious leader present at the deathbed or immediately after death, a notably low figure within a sample that was predominantly Hindu and Christian. Ethical attitudes and personal end-of-life preferences are presented together in Table 3.

Table 3
Ethical attitudes, end-of-life preferences, and perceptions of a good death (n = 168)

Survey Item	Respondents Agreeing, % (n)
Ethical Decision-Making	
Would honour competent patient's wishes over family preference	67.0% (n = 113)
Accepts patient's right to refuse treatment despite fatal prognosis	65.5% (n = 110)
Unwilling to withhold futile treatment in terminally ill patient	71.4% (n = 120)
End-of-Life Preferences (Personal)	
Would prefer to die at home	77.4% (n = 130)
Wishes to have family and friends present at time of death	60.1% (n = 101)
Would forego futile treatments if diagnosed with incurable illness	58.3% (n = 98)
Desires advance knowledge of own impending death	35.1% (n = 59)
Desires spiritual/religious leader at deathbed or after death	39.3% (n = 66)
Good Death Descriptors (top three, unprompted)	
Pain-free	Most frequent
Sudden	Second most frequent
Peaceful	Third most frequent

Note. *Approximate n values derived from reported percentages and total sample size. Items presented as percentage of respondents who agreed with or selected the stated position.*

Discussion

The picture that comes out of this survey is one that palliative care researchers across the region will find familiar, though no less troubling for that. Nearly every respondent said pain relief is a human right. Three quarters of those same respondents believed morphine is inherently addictive in higher doses. These two beliefs coexist, unchallenged, in the same clinical mind, and that is where the real problem lies. Wijesinghe et al. found an almost identical gap among Sri Lankan nurses: 85% held positive attitudes toward caring for dying patients, yet 55% scored below 50% on a palliative care knowledge test [9]. Clark et al. documented Indian clinicians who articulated support for palliative principles while routinely delaying opioid prescribing out of fear of legal repercussions [8]. Northern Sri Lanka is not an exception to a pattern. It is a clear example.

The clinical consequences of opioid phobia are concrete. When morphine is withheld or underdosed because the prescribing clinician fears addiction, patients with cancer or other serious illnesses are left in pain that could be treated. The WHO analgesic ladder, in place since 1986, identifies morphine as the recommended strong opioid for moderate-to-severe cancer pain, and that guidance has not changed [1]. Sri Lanka's morphine consumption per capita is among the lowest in the world, and that statistic reflects both restrictive regulation and genuine prescriber hesitancy [4, 5]. In this study, 60.0% (n = 101) of respondents had regular contact with patients receiving opioids. That clinical exposure, on its own, had not translated into accurate pharmacological knowledge. Myths do not dissolve through proximity. They dissolve through teaching that confronts them directly.

The ethical findings are more encouraging, though not without their own complications. Two thirds of respondents would honour a competent patient's treatment decision even when the family disagreed. In a cultural setting where non-disclosure of terminal prognosis has historically been commonplace, this represents genuine alignment with contemporary bioethical norms [11]. What sits alongside it, however, is a strong reluctance to withdraw futile treatment: 71.4% (n = 120) said they would not do it. This is worth unpacking. It is not a straightforward knowledge deficit. It is a moral discomfort with the act of stopping, a conviction that continuing care, even when it cannot help, is better than the alternative. That kind of discomfort does not yield to factual correction alone. It requires structured clinical ethics education, clear institutional policies on goals-of-care conversations, and sustained engagement with what comfort-focused care means in practice.

The end-of-life preference findings are where this study makes its most distinctive contribution. The preference for home death with family present, expressed by 77.4% (n = 130) of respondents, is entirely consistent with comparable surveys from across South and Southeast Asia [7, 12]. The finding worth lingering on is the other one: only 39.3% (n = 66) wanted a spiritual or religious leader at the deathbed, in a sample that was predominantly Hindu or Christian. Several explanations are plausible. It may reflect a genuinely private relationship with faith, one that does not require institutional expression now of death. It may reflect practical resignation: access to a religious leader at the hour of death is genuinely constrained in a hospital setting, and expectations tend to adjust accordingly. It may also point to a slow secularisation among healthcare professionals, whose frameworks for understanding death have increasingly become biomedical rather than religious. Whatever the explanation, the practical takeaway is the same. Spiritual care cannot be inferred from a patient's religion. It has to be asked about, individually, as part of a genuine goals-of-care conversation.

Several limitations deserve acknowledgement. This study was conducted at a single district hospital, and the sample, while diverse in professional role and religious background, cannot be taken to represent all healthcare workers in Northern Sri Lanka or across the country. A cross-sectional design captures attitudes at one moment in time and cannot speak to how those attitudes influence clinical behaviour. The questionnaire was adapted from validated instruments but was not formally re-validated in this population. Finally, because responses were anonymous, fine-grained comparisons between professional subgroups were limited in scope. Despite these constraints, the study contributes a

perspective from the Northern Province that has been almost entirely absent from Sri Lanka's palliative care literature.

What would a meaningful response to these findings look like? Three things, working in concert rather than in sequence. Training that does not simply raise awareness of palliative care as a concept, but directly addresses the specific misconceptions identified here: that properly managed morphine does not cause addiction, that palliative care is not a synonym for end-of-life care, and that total pain demands attention to more than physical symptoms. Alongside training, clinical guidelines adapted to Sri Lanka's regulatory environment give clinicians clear, legally grounded authority to prescribe opioids when indicated. And third, health system investment in home-based palliative support, because 77.4% (n = 130) of respondents want to die at home, and right now most patients in this district have little realistic chance of doing so with adequate symptom control in place.

Conclusions

The healthcare workers surveyed at District General Hospital Vavuniya are not indifferent to palliative care. Almost all of them believe, genuinely and without ambiguity, that relieving pain is a human right. What they lack is the pharmacological knowledge to act on that belief safely, and what the health system lacks is the structures to support them when they try. Opioid phobia is not an irrational character flaw. It is the predictable product of a training system that never demystified morphine, a regulatory environment that made prescribing feel legally precarious, and a professional culture in which morphine came to mean surrender rather than relief.

The picture of a good death described by this survey, peaceful, at home, surrounded by family, is clear and coherent. The gap between that picture and the death most patients in Northern Sri Lanka are likely to experience is equally clear, and considerably larger. Narrowing it will take more than awareness campaigns or policy statements. It will take training that addresses what clinicians actually believe, regulations that stop treating opioid prescribing as a hazard rather than a clinical tool, and a commitment to investing in care that happens outside hospital walls, where most people want to spend their final days.

Declarations

Ethics Approval and Consent to Participate

Ethical approval was obtained from the Ethical Review Committee of the Regional Directorate of Health Services, Vavuniya. Administrative approval was granted by the Director of District General Hospital Vavuniya. Written informed consent was obtained from all participants prior to data collection.

Consent for Publication

Not applicable.

Availability of Data and Materials

The dataset supporting the conclusions of this article is available and will be shared upon reasonable request.

Competing Interests

The authors declare that they have no competing interests.

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Authors' Contributions

SM conceived and designed the study and was responsible for data collection. KR supervised the study and contributed to methodological refinement. Both authors participated in data interpretation and manuscript drafting. All authors read and approved the final manuscript.

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