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Identifying the Priority Evidence-Practice Gaps in Palliative Care: Health Professional Perspectives

A white paper published by the Flinders Research Centre for Palliative Care, Death and Dying

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About this White Paper

This publication is a RePaDD White Paper and Research Report.

The RePaDD White Paper and Research Report Series provides researchers and policy makers with evidence-based data and recommendations. By organising, summarising, and disseminating previous and current studies, the series aims to inform ongoing and future research in palliative care, death, and dying.

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Acknowledgement of Country

Flinders University was established on the lands of the Kaurna nation, with the first University campus, Bedford Park, located on the ancestral body of Ngannu near Warriparinga.

Warriparinga is a significant site in the complex and multi-layered Dreaming of the Kaurna ancestor, Tjilbruke. For the Kaurna nation, Tjilbruke was a keeper of the fire and a peace maker/law maker. Tjilbruke is part of the living culture and traditions of the Kaurna people. His spirit lives in the Land and Waters, in the Kaurna people and in the glossy ibis (known as Tjilbruke for the Kaurna). Through Tjilbruke, the Kaurna people continue their creative relationship with their Country, its spirituality, and its stories.

Flinders University acknowledges the Traditional Owners and Custodians, both past and present, of the various locations the University operates on, and recognises their continued relationship and responsibility to these Lands and waters.

About the RePaDD

Death and dying will affect all of us. The Research Centre for Palliative Care, Death, and Dying or RePaDD works to make a difference to the care of persons at the end of life.

We examine the universal experience of dying and create innovative solutions for people living with a life-limiting illness, their carers, and the clinicians caring for them. Our members lead major national palliative care projects in Australia. Our team of multidisciplinary researchers and experts work collaboratively with various organisations and funding agencies to deliver impact. We also strengthen research capacity by offering evidence-based resources, researcher education, and training and scholarships.

Our research

We focus on the following research areas:

Palliative care across the health system: We conduct clinical and service studies and develop online palliative care resources and applications. Our work in this area contributes towards ensuring that quality palliative care can be delivered in all healthcare settings - whether in hospitals, aged care, homes, hospices, clinics, or the community.

Death and dying across the community: We examine and respond to community and consumer attitudes, views, and needs with respect to death and dying and palliative care. Our research in this area empowers the wider community to make informed decisions by raising awareness and building death literacy.

Online evidence and practice translation: We build, synthesise, and disseminate the evidence for palliative care. We also create innovative digital solutions to improve evidence translation and use. Our research in this area builds palliative care capacity of the health and aged care workforce, access and use of information by health consumers and the community.

Further information can be found at flinders.edu.au/repadd

About CareSearch

The CareSearch Project consolidates online palliative care knowledge for health professionals, people needing palliative care and their families, and for the general community. Our project is responsible for two major websites, the CareSearch website and the palliAGED website. The CareSearch Project also works closely with a number of other projects to maximise impact within the sector.

Further information can be found at caresearch.com.au

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Introduction

Evidence-practice gaps are a major health services problem. They refer to the large, ongoing discrepancy between treatments proven to be effective by well-designed research and treatments provided to patients within healthcare settings. As Visser, Hadley, and Wee summarised, the inherent complexities associated with palliative care have posed difficulties for the uptake of evidence based practice.[1] This could in part explain Kalies et al suggestion that evidence based practice is particularly lacking in palliative care.[2] However, the priority evidence-practice gaps in palliative care, and how to address them, are poorly understood. This study aims to address this by seeking the perspectives of specialist palliative care health professionals, as opposed to the perspectives of persons who are simply in a position to direct clinicians. More specifically, this study provides an understanding of: specialist palliative care clinicians' current level of awareness of processes for improving healthcare delivery; how clinicians see their role in effecting clinical change in the workplace; specific areas of palliative care practice that clinicians believe need improving; clinician's awareness of existing evidence that could serve to improve a specific area of care; the knowledge translation strategies clinicians perceive to be most beneficial in achieving clinical practice change in a workplace setting; and the characteristics of the palliative care field that might contribute to the less than optimal research uptake in practice.

In addition, this study informs a generalizable methodology for identifying and prioritizing evidence-practice gaps across a range of health fields. In doing so, it is hoped that this study may contribute to more systematic and generalizable knowledge building translation research. This is particularly important, as Shojania and Grimshaw point out that quality improvement efforts to address evidence-practice gaps, should also be evidence-based.[3]

Methods

Specialist palliative care physicians and nurses, and allied health workers practicing in the field of palliative care were recruited via the digital newsletters and social media channels of three peak professional palliative care organizations: the Australian and New Zealand Society of Palliative Medicine (ANZSPM); Palliative Care Nurses Australia (PCNA); and the Palliative Care Allied Health Special Interest Group. In addition, other palliative care organizations such as Palliative Care Australia (PCA), CareSearch, the Palliative Care Outcomes Collaboration (PCOC), and the Palliative Care Clinical Studies Collaborative (PACCSC) were invited to promote awareness of the study.

Participants were provided with a link which would take them to the Research Data Management System hosted by the CareSearch website, which facilitates the collection of de-identified data for analysis. Here, participants could complete an online survey that was structured in four parts. There were a mixture of multiple choice and open-ended questions which covered topics in line with the research objectives, including:

- Demographic questions
- Clinician understanding of change processes in the health care setting
- Areas of palliative care practice clinicians believe could be improved in their workplace
- Perceived ability of research evidence to address problem areas
- Effectiveness of specific methods for changing practices, and
- Any unique challenges presented by the field itself

A total of 43 participants answered at least some of the questions. In instances where participants did not answer a particular question, they were removed from the analysis using the “Automatic Recode” function in the program IBM SPSS Statistics 23. Frequency analysis was conducted using this program. Content analysis of open-ended responses was performed in line with conventional content analysis, whereby categories and category names are not pre-conceived, but elicited from the data.[4]

Results

Demographics

Health professionals were surveyed in order to identify evidence-base practice gaps. In total there were 43 respondents. Of these, there were 12 males and 29 females, with two participants declining to provide their gender.

The majority of respondents were aged 51-60, as depicted in Table 1.

Table 1. Age of Participants

Age Range	Frequency	Percentage
18-30	1	2.3
31-40	8	18.6
41-50	12	27.9
51-60	16	37.2
61+	4	9.3
Missing	2	4.7
Total	43	100

An array health professionals, often occupying multiple roles, participated in the survey, as depicted in Table 2.

Table 2. Participants' Occupation

Occupation	Frequency
Doctor	
Palliative Care Specialist	3
Palliative Care Specialist / Researcher	6
Other	1
Total	10
Nurse	
Palliative Care Nurse	7
Palliative Care Nurse / Researcher	3
Palliative Care Nurse / Nurse Practitioner	1
Registered Nurse	1
Nurse Practitioner	1
Other	1
Total	14
Allied Health	
Psychologist	1

Occupation	Frequency
Occupational Therapist	2
Physiotherapist	4
Social Worker	5
Social Worker / Researcher	2
Speech Pathologist	1
Total	15
Researcher	1
Other (“Social Worker Palliative Care”)	1
Missing	2
Total	**43**

Of these health professionals, 81.4% reported they were currently practicing in specialist palliative care (14.0% were not and 4.7% declined to answer).

1. Understanding change processes in health care

Participants were asked to demonstrate the extent of their familiarity with terms for processes aimed at improving the quality of health care services. The responses are depicted in Table 3.

Table 3. Familiarity of Health Professionals with Change Processes (%)

	Very Familiar	Somewhat Familiar	Not Familiar
Knowledge Translation	38.7	35.5	25.8
Knowledge Transfer	35.5	45.2	19.4
Knowledge Exchange	25.8	64.5	9.7
Research Utilisation	41.9	32.3	25.8
Implementation Science	19.4	35.5	45.2
Research into Practice	58.1	35.5	6.5
Knowledge Mobilisation	9.7	48.4	41.9
Quality Improvement	80.6	19.4	00.0
Diffusion of Innovation	12.9	29.0	58.1

Note. n = 31, as health professionals who did not answer these questions were removed from analyses.

Results demonstrate that health professionals are most familiar with the term “quality improvement” and not familiar with terms such as “diffusion of innovation,” “knowledge mobilisation” and “implementation science.”

To see familiarity with terms for changes processes stratified by occupation, see Table 4.

Table 4. Familiarity with Changes Processes, by Occupation (%)

	Very Familiar	Somewhat Familiar	Not Familiar
Knowledge translation			
Doctor	50.0	25.0	25.0
Nurse	33.3	55.6	11.1
Allied Health	38.5	30.8	30.8
Knowledge transfer			
Doctor	50.0	25.0	25.0
Nurse	33.3	55.6	11.1
Allied Health	30.8	53.8	15.4
Knowledge exchange			
Doctor	37.5	50.0	12.5
Nurse	22.2	66.7	11.1
Allied Health	23.1	76.9	0.0
Research Utilisation			
Doctor	62.5	12.5	25.0
Nurse	33.3	33.3	33.3
Allied Health	38.5	38.5	23.1
Implementation Science			
Doctor	25.0	50.0	25.0
Nurse	11.1	22.2	66.7
Allied Health	23.1	38.5	38.5
Research into Practice			
Doctor	62.5	37.5	0.0
Nurse	66.7	33.3	0.0
Allied health	53.8	30.8	15.4
Knowledge Mobilisation			
Doctor	0.0	50.0	50.0
Nurse	11.1	33.3	55.6
Allied Health	15.4	61.5	23.1
Quality Improvement			
Doctor	87.5	12.5	0.0
Nurse	66.7	33.3	0.0
Allied Health	84.6	15.4	0.0
Diffusion of Innovation			
Doctor	12.5	25.0	62.5
Nurse	11.1	11.1	77.8
Allied Health	15.4	46.2	38.5

Note. Sample sizes for each occupation were as follows: doctors (n = 8), nurses (n = 9), and allied health professionals (n = 13).

These findings demonstrate that familiarity with change processes varies to some extent as a product of occupation. For example, nurses were least familiar with the concept of implementation science.

Of the respondents 93.3% have been involved in a workplace project aimed at changing routine clinical practice to improve patient care. When stratified by occupation, 100% of doctors, 88.9% of nurses, and 92.3% of allied health professionals said they had been involved in a workplace project aimed at changing routine clinical practice to improve patient care.

Further, health professionals were surveyed as to how important specific activities were in relation to effecting clinical change. The results are depicted in Table 5.

Table 5. Relative importance of specific activities for effecting clinical change (%)

	Very Important	Somewhat Important	Not at all Important
Establishing the existence and size of a suspected problem	77.4	19.4	3.2
Ensuring the healthcare team involved agree there is a problem that needs addressing	90.3	9.7	0.0
Finding evidence in the research literature as to what might work better than current practice	90.3	9.7	0.0
Adapting evidence to your own unique workplace situation, if necessary	80.6	16.1	3.2
Anticipating any local issues that might hinder change efforts	87.1	12.9	0.0
Designing strategies for achieving the required change	86.7	13.3	0.0
Monitoring the effectiveness of the change strategies over time	93.5	6.5	0.0

Note. N = 31, except for the question regarding “designing strategies for achieving the required change,” where n = 30. “Unsure” was a response option, but no participants selected it, so it was removed from the table.

All activities were endorsed as “very important” by greater than 75% of participants. The importance of these activities at effecting clinical change, stratified by occupation, is depicted in Table 6.

Table 6. Relative importance of specific activities for effecting clinical change, stratified by occupation (%)

	Occupation	Very Important	Somewhat Important	Not at all Important
Establishing the existence and size of a suspected problem *Example: a benchmark report provided by PCOC*	Doctor	62.5	37.5	0.0
	Nurse	66.7	22.2	11.1
	Allied Health	92.3	7.7	0.0
Ensuring the healthcare team involved agree there is a problem that needs addressing	Doctor	62.5	37.5	0.0
	Nurse	100.0	0.0	0.0
	Allied Health	100.0	0.0	0.0
Finding evidence in the research literature as to what might work better than current practice	Doctor	62.5	37.5	0.0
	Nurse	100.0	0.0	0.0
	Allied Health	100.0	0.0	0.0
Adapting evidence to your own unique workplace situation, if necessary	Doctor	50.0	50.0	0.0
	Nurse	88.9	0.0	11.1
	Allied Health	92.3	7.7	0.0
Anticipating any local issues that might hinder change efforts Example: ensure all staff have easy access to the relevant evidence	Doctor	50.0	50.0	0.0
	Nurse	100.0	0.0	0.0
	Allied Health	100.0	0.0	0.0
Designing strategies for achieving the required change Example: ensure all staff have easy access to the relevant evidence	Doctor	42.9	57.1	0.0
	Nurse	100.0	0.0	0.0
	Allied Health	100.0	0.0	0.0
Monitoring the effectiveness of change strategies over time	Doctor	87.5	12.5	0.0
	Nurse	88.9	11.1	0.0
	Allied Health	100	0.0	0.0

Note. Sample sizes for each occupation were as follows: doctors (n = 8), nurses (n = 9), and allied health professionals (n = 13), except for the question pertaining to "designing strategies for achieving the required change," where the sample size differed for doctors (n = 7).

In general, the majority of nurses and allied health professionals endorsed the activities as "very important," whereas doctors tended to be more evenly split between endorsing them as "very important" or "somewhat important."

Participants were also surveyed as to who should be involved with these activities, with the ability to choose multiple response options for each question, see Table 7.

Table 7. Who should be involved in these activities for effecting clinical change (%)

	Staff	Service Clinical Managers	Administrators or Policy Makers	Peak or Professional Bodies	Researchers in the field
Establishing the existence and size of a suspected problem	93.5	80.6	58.9	61.3	64.5
Ensuring the healthcare team involved agree there is a problem that needs addressing	93.5	87.1	41.2	6.5	12.9
Finding evidence in the research literature as to what might work better than current practice *Example: A clinical practice guideline or a systematic review on the issue*	87.1	80.6	38.7	38.7	77.4
Adapting evidence to your own unique workplace situation, if necessary	96.8	58.1	38.7	16.1	29.0
Anticipating any local issues that might hinder change efforts *Example: ensure all staff have easy access to the relevant resources*	96.8	90.3	54.8	12.9	25.8
Designing strategies for achieving the required change *Example: set up chart reminders, create easy-to-understand patient / carer information sheets, invite an expert to speak to the care team*	90.3	87.1	41.9	16.1	32.3
Monitoring the effectiveness of the change strategies over time	74.2	90.3	48.4	22.6	54.8

Note. Participants could choose more than one answer for each activity. N = 31 participants.

To see how doctors, nurses and allied health professionals differentially responded to who should be involved in activities for effecting clinical change, see Table 8.

Table 8. Who should be involved in these activities for effecting clinical change (% endorsed), stratified by occupation

	Occupation	Clinical Staff	Service Managers	Administrators or policy makers	Peak or Professional Bodies	Researchers in the field
Establishing the existence and size of a suspected problem	Doctor	100.0	75.0	87.5	75.0	62.5
	Nurse	88.9	66.7	33.3	44.4	55.6
	Allied Health	92.3	92.3	61.5	61.5	69.2
Ensuring the healthcare team involved agree there is a problem that needs addressing	Doctor	87.5	87.5	25.0	0.0	25.0
	Nurse	88.9	77.8	55.6	0.0	11.1
	Allied Health	100.0	92.3	46.2	15.4	7.7
Finding evidence in the research literature as to what might work better than current practice	Doctor	87.5	87.5	50.0	50.0	100.0
	Nurse	88.9	55.6	33.3	22.2	66.7
	Allied Health	84.6	61.5	23.1	38.5	69.2
Adapting evidence to your own unique workplace situation, if necessary	Doctor	100.0	87.5	50.0	12.5	37.5
	Nurse	88.9	55.6	44.4	22.2	44.4
	Allied Health	92.3	92.3	23.1	15.4	15.4
Anticipating any local issues that might hinder change efforts Example: ensure all staff have easy access to the relevant evidence	Doctor	100.0	100.0	62.5	12.5	25.0
	Nurse	88.9	77.8	44.4	11.1	33.3
	Allied Health	100.0	92.3	53.8	15.4	23.1

	Occupation	Clinical Staff	Service Managers	Administrators or policy makers	Peak or Professional Bodies	Researchers in the field
Designing strategies for achieving the required change Example: ensure all staff have easy access to the relevant evidence	Doctor	87.5	100.0	62.5	25.0	37.5
	Nurse	77.8	77.8	55.6	11.1	44.4
	Allied Health	100.0	84.6	23.1	15.4	23.1
Monitoring the effectiveness of change strategies over time	Doctor	75.0	100.0	75.0	25.0	62.5
	Nurse	66.7	77.8	66.7	22.2	44.4
	Allied Health	76.9	92.3	23.1	23.1	61.5

2. Identifying the need for clinical change

Of respondents (n = 25), 96% said that there were currently areas of palliative care that they think could be improved in their workplace. When stratified by occupation, 100% of doctors and allied health professionals and 88.9% of nurses, said there were currently areas of palliative care practice that could be improved in their workplace.

Participants were asked to identify up to three areas of practice that could be improved in their workplace, by order of importance. See Table 9 for a summary of responses from the 23 participants who elected to answer, including the nominated level of importance and occupation of respondents.

Table 9. Areas of palliative care that could be improved

Areas of Palliative Care Practice	Level of Importance	Frequency by Occupation
Medication		
Rationalising medications as a patient's condition changes	1	Nurse - 1
What medications are effective in the terminal phase	2	Doctor - 1
Translation of evidence based medicine into practice	1	Doctor - 1
How to best assess analgesic response	3	Doctor - 1
Availability of EOL meds	2	Nurse - 1
GP education particularly with prescribing medication	1	Nurse - 1
Education of employees use of opioids	1	Nurse - 1
Disease Management		
Delirium care (including non-medical management)	3, 1	Doctor - 2
Secretion management	1	Allied Health Professional - 1
Evolving the care type provided in palliative care inpatient units to incorporate acute symptom control issues as well as end of life care	2	Doctor - 1
Access to lymphoedema management for advance palliative care patients	2	Allied Health Professional - 1
Education of patients and carers regarding medications for symptom management	1	Nurse - 1
Reducing the risk of falls in the community dwelling and inpatient palliative population	1	Allied Health Professional - 1
Better access to community services/supports to facilitate	1	Allied Health Professional - 1

Areas of Palliative Care Practice	Level of Importance	Frequency by Occupation
EOLC at home preparing for end of life		
Catastrophic orders guideline	1	Doctor - 1
Rx and diagnosis integration in community pall care between CPC and GP's	2	Doctor - 1
Access to out of hours care	3	Nurse - 1
Current best practice in palliative care	1	Researcher - 1
Case management for patient and families	2	Researcher - 1
Implementation of an individual care planning	3	Researcher - 1
Placing the client and family more centrally with respect to goals of admission	1	Allied Health Professional - 1
Ensuring suitably skilled staff are providing palliative care	1	Nurse - 1
Triage		
Triaging requests for care (inpatient and outpatient)	1	Doctor - 1, Nurse - 1
Discharge		
Identification of appropriate accommodation for patients who no longer require specialist care in the inpatient setting, but are unable to return to their previous accommodation	3	Nurse - 1
Discharge planning	3	Allied Health Professional - 1
Communication		
Advance care planning	2	Allied Health Professional - 1
Preparing patients for likely changes in condition, as the patient deteriorates	2	Nurse - 1
Communication between care settings	1	Allied Health Professional - 1
Communication and collaboration between public and private providers	2	Allied Health Professional - 1
Communication of end of life issues	1	Allied Health Professional - 1
Goals of care discussion	2	Allied Health Professional - 1
Communication between hospitals and GP's	3	Doctor - 1
Improving communication between the community and inpatient sectors	3	Doctor - 1
Communication with families	2, 1	Nurse - 1, Allied Health Professional - 1

Areas of Palliative Care Practice	Level of Importance	Frequency by Occupation
Managing the complexities of cultural considerations when discussing end of life issues	3	Allied Health Professional - 1
Team communication about new referrals and progress about current cases on a more consistent basis	1	Allied Health Professional - 1
Communication with team	3	Nurse - 1
Needs Assessment / Screening		
Adequate assessment of care needs (especially spiritual care)	2	Doctor - 1
Early palliative care	1	Doctor - 1
Systematic screening of MND patients for cognitive problems	2	Nurse - 1
Symptom screening in CALD patients	2	Researcher - 1
Psychosocial		
Addressing complex psychosocial issues	1	Nurse - 1
Low mood in palliative patient	1	Doctor - 1
Identifying and responding to psychological distress, or mental health issues	3	Allied Health Professional - 1
The understanding of and management of difficult clients (eg those with personality issues or past trauma)	2	Allied Health Professional - 1
Team working holistically or multidisciplinary to identify & communicate psycho-social-spiritual issues for referral	2	Allied Health Professional - 1
Offering bereavement support services to bereaved families in the region that are known to the team	3	Allied Health Professional - 1
Bereavement follow up communication within the broader team (GPs, NGOs, etc) benchmarking service	1	Doctor - 1
Work Culture		
Staff retainment / self care	2	Doctor - 1
Setting standards around follow up expected	2	Nurse - 1
Improve balance of multidisciplinary team	2	Allied Health Professional - 1

Of those who participated (n = 24), 71.4% said they would feel confident suggesting a previously identified area of palliative care practice as a potential clinical change project, whilst 8.3% said they would not feel confident, and 20.8% were unsure. When stratified by occupation 71.4% of doctors, 87.5% of nurses, and 55.6% of allied health professionals said they were confident to suggest any one of these issues as a potential clinical change project. 14.3% of doctors and 44.4% of allied health professionals said they were unsure if they would feel confident, and 14.3% of doctors and 12.5% of nurses said they were not confident.

Only two participants elected to provide reasons as to why they would not be confident to suggest a previously identified issue as a potential clinical change project:

- A nurse responded that they were “not qualified enough.”
- A doctor responded that the “capacity of the local service to engage effectively, and currently a lack of understanding of the local operating landscape by management, sufficient to understand and facilitate change.”

3. Finding and using evidence to address practice problems

Of respondents (n = 18), 44.4% said they were aware of existing evidence in the form of guidelines, studies or systematic reviews that might address the most significant, previously identified, practice issue. 38.9% said they were not aware, and 16.9% said they were unsure. When stratified by occupation, 20% of doctors, 60% of nurses, and 50% of allied health professionals were aware of existing evidence in the form of guidelines, studies or systematic reviews, whereas 60% of doctors, 40% of nurses and 25% of allied health professionals were not. The remainder, i.e. 20% of doctors and 25% of allied health professionals, were unsure.

For participants who were aware of existing evidence, 7 provided responses as to why this evidence is not being currently used to address the problem. Their responses are summarised in Table 10.

Participants were asked to demonstrate the extent to which they agree with statements regarding clinical decisions and sources of evidence. The statements, and responses, are depicted in Table 11.

Table 10. Reasons why existing evidence is not being used to address a significant practice problem

Reasons	Frequency by Occupation
System	
System structure	Doctor – 1
Collaboration and communication as well as effective care coordination, which really puts the patient and their family in the center of care, is tricky to coordinate across care settings - between public health care system, the local GP practices, identification of appropriately trained and skilled MH or allied health clinicians in private practice or in primary care as well as navigating the new NDID and Aged Care system	Allied Health Professional – 1
Time / Resources	
"Time"	Doctor – 1 Nurse – 1 Allied Health Professional – 1
Application of the evidence into practice is being implemented in the midst of busy-ness of high workloads, inadequate FTE and other barriers associated with regional / remote practice	Allied Health Professional – 1
Lack of funding	Nurse – 1
Resources	Allied Health Professional – 1
Productivity driven organisation does not allow time for mentoring	Nurse – 1
Staff	
Attitudes	Doctor – 1
Need for leader/change champion	Doctor – 1
There is a strong body of evidence to indicate that even though psychological distress is present, GP's, medical specialists, and nursing admit that they do not routinely screen or respond in a timely or appropriate manner.	Allied Health Professional – 1
Isolation of staff as itinerant workers	Nurse – 1
Other	
Identification and acknowledgement of the extent and impact of falls in the palliative care community	Allied Health Professional – 1

Table 11. Agreement with clinical decisions and sources of information in palliative care practice (%)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
It's important to base clinical decisions affecting patients or their families on good research evidence	52.0	44.0	0.0	4.0	0.0
I prefer to rely on local procedural guidelines, the advice of colleagues, or management directives	8.0	20.0	16.0	52.0	4.0
Social media is important to me for learning about new evidence in palliative care (e.g. Twitter, Facebook, Blogs)	0.0	20.0	8.0	36.0	36.0
Finding high quality evidence in palliative care is easy	0.0	41.7	29.2	29.2	0.0
I have changed my own clinical practice based on evidence found via a guideline, clinical study, or the CareSearch website	44.0	44.0	8.0	4.0	0.0
The palliative care research evidence is often not strong enough for changing clinical practice	8.0	28.0	32.0	20.0	12.0

Note. There were n = 25 participants, except in relation to the statement "finding high quality evidence in palliative care is easy" where the sample size differed, n = 24.

To see how doctors, nurses and allied health professionals differentially responded to statements regarding clinical decisions and sources of evidence, see Table 12.

Table 12. Agreement with clinical decisions and sources of information in palliative care practice by occupation (%)

	Occupation	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
It's important to base clinical decisions affecting patients or their families on good research evidence	Doctor	83.3	16.7	0.0	0.0	0.0
	Nurse	55.6	33.3	0.0	11.1	0.0
	Allied Health	33.3	66.7	0.0	0.0	0.0
I prefer to rely on local procedural guidelines, the advice of colleagues, or management directives in knowing what's effective	Doctor	16.7	33.3	0.0	33.3	16.7
	Nurse	11.1	0.0	22.2	66.7	0.0
	Allied Health	0.0	22.2	22.2	55.6	0.0
Social media is important to me for learning about new evidence in palliative care	Doctor	0.0	50.0	16.7	00.0	33.3
	Nurse	0.0	0.0	11.1	44.4	44.4
	Allied Health	0.0	22.2	0.0	55.6	22.2
Finding high quality evidence in palliative care is easy	Doctor	0.0	33.3	0.0	66.7	0.0
	Nurse	0.0	62.5	25.0	12.5	0.0
	Allied Health	0.0	33.3	44.4	33.3	0.0
I have changed my own clinical practice based on evidence I have found via a guideline, clinical study or the CareSearch website	Doctor	50.0	16.7	33.3	0.0	0.0
	Nurse	55.6	33.3	0.0	11.1	0.0
	Allied Health	33.3	66.7	0.0	0.0	0.0
The palliative care research evidence is often not strong enough for changing clinical practice	Doctor	33.3	33.3	0.0	0.0	33.3
	Nurse	0.0	22.2	44.4	33.3	0.0
	Allied Health	0.0	22.2	44.4	22.2	11.1

Note. Sample sizes for each occupation were as follows: doctors (n = 6), nurses (n = 9), and allied health professionals (n = 9), except in relation to the statement "finding high quality evidence in palliative care is easy" where the sample size differed for nurses (n = 8).

Areas in palliative care currently supported by strong research were identified via an open-ended response question, which elicited responses from 20 participants. A summary of responses in presented in Table 13.

Table 13. Palliative care practice areas supported by strong research

Practice Areas	Frequency by Occupation
Symptom Management and Assessment	
Medication management	Nurse 1
Opioid use	Nurse – 2
Opioid use for pain management	Nurse – 1 Doctor – 2
Pain Management	Nurse – 1 Allied Health Professional – 1
Opioid use for breathlessness	Doctor – 1 Allied Health Professional – 1
Management of nausea/vomiting	Allied Health Professional – 2
Management of dyspnea	Nurse – 1
Management of symptoms	Nurse – 3 Allied Health Professionals – 1
Pain assessment	Nurse – 1
Cancer specific pain management strategies	Doctor - 1
Analgesia early involvement in incurable malignancy	Doctor – 1
Symptom screening	Doctor - 1
Medicine to not use regularly e.g. ketamine, octreotide, antipsychotics	Doctor – 1
De-prescribing	Allied Health Professional – 1
Adjuvant therapies Planning (EPOA, AHD etc)	Doctor – 1
“medication holistic approach”	Nurse – 1
Planning / Models	
Models of palliative care – i.e. integration with oncology	Doctor – 1
Advance care planning	Allied Health Professional – 1
End of life planning	Allied Health Professional – 1
Early Palliative Care	Doctor – 1
Psychosocial Factors	
Care / Support	Allied Health Professional – 1 Nurse – 1
Family and caregivers	Allied Health Professional – 2
Patient concern	Allied Health Professional – 1
Survivorship	Allied Health Professional – 1
Communication	
Communication effective approaches	Nurse – 2 Doctor – 1
Importance	
The importance of palliative medicine involvement in a range of life limiting illnesses.	Doctor – 1
Bereavement	Nurse – 2 Allied Health Professional – 1
Few Areas	
Very few. 'Evidence' is very variable in its quality. There are a number of examples of poor 'evidence' that has been suggestive of practice	Doctor – 1

Practice Areas	Frequency by Occupation
change on the basis of one study. No other medical discipline changes practice based on one trial or study as far as I know	
Very few. Actually none that I can think ok. There is quite considerable literature around experiences of cancer diagnosis and treatment, yet translating this to practice has been lacking.	Doctor – 1
Other	
Don't feel I am well placed to answer this. We have journal club here weekly and many areas of practice are addressed in this forum but I can't say whether this represents strong research. Am not a researcher myself. Many articles are research based, some are not but designed to generate discussion.	Allied Health Professional – 1

Further, 21 participants identified areas of palliative care practice where they believe more research is needed. Their responses are summarised in Table 14.

Table 14. Palliative care practice areas where more research is needed

Topic	Frequency by Occupation
Medication	
Use of cannabis	Nurse – 1 Doctor – 1
Assessing response to analgesics (beyond pain scales)	Doctor – 1
Use of medications are (sic) end of life	Doctor – 1
Pharmacological management of noisy breathing	Nurse – 1
Symptom Control	
Management and pathophysiology of nausea	Doctor – 1
Basic science and biological predictors of response to various symptom control issues	Doctor – 1
Delirium prevention	Doctor – 1
Non-pharmacological management of noisy breathing	Nurse – 1
Complimentary therapy minimising treatments	Nurse – 1
Falls	Allied Health Professional – 1
Lymphoedema in advanced palliative care patient	Allied Health Professional – 1
Non-malignant illness	
Non-malignant illness	Doctor – 1
Integration of palliative care principles into non-malignant diseases – how to do it and who should lead it?	Doctor – 1
Mental Health	
Demoralisation	Allied Health Professional – 1
Distress management	Allied Health Professional – 1
Consistent and effective mental health screening and assessment	Allied Health Professional – 1
Aged Care mental health	Allied Health Professional – 1
Engagement of private providers by palliative care clinicians	Allied Health Professional – 1
Family and Caregiver	
Bereavement care	Doctor – 1
Family and caregiver mental health needs	Allied Health Professional – 1
Provision of Palliative Care	
Provision of out of hours care eg education needs of A/H GP practices	Nurse – 1
Palliative care knowledge for non-palliative care providers of care of the dying	Nurse – 1
GPs - their reluctance to be involved in the home care of Palliative Care patients and prescribing end of life medications for pain and symptom management. Why do GPs not seek help from colleagues, e.g., Palliative Care Units / Specialists when difficulties arrive?	Nurse – 1
Improving acute hospital palliative care	Doctor – 1
Service delivery models	Nurse – 1

Topic	Frequency by Occupation
Benefit of allied health in palliative care	Allied Health Professional – 1
Palliative rehabilitation	Allied Health Professional – 1
Referral criteria	Nurse - 1
Patient Experience	
Patients' experiences of information provided when a palliative diagnosis or trajectory is identified	Nurse – 1
Cultural Sensitivity	
Cultural sensitivity and end of life discussions	Allied Health Professional – 1
Palliative care with Aboriginal and Torres Strait Islander peoples	Allied Health Professional – 1
Sexuality and sexual identity and palliative care	Allied Health Professional – 1
Past trauma and the management of pain with these patients	Allied Health Professional – 1
Death and Dying	
Catastrophic order management	Doctor – 1
Death review	Allied Health Professional – 1
Compassion fatigue/burnout (supporting health and community staff working with dying and death)	Allied Health Professional – 1
Euthanasia and assisted dying in Australia	Nurse – 1
Other	
Just about everything we do	Doctor – 1
Everything – but the more clinical issues will require large trials to investigate	Doctor – 1

4. Changing clinician behaviour for improved patient outcomes

Participants were surveyed about the effectiveness of certain strategies for effecting change at the individual, service and systems level of healthcare. Their responses as a collective are depicted in Table 15, and stratified by occupation, are depicted in Table 16.

Table 15. Effectiveness of strategies for effecting clinical change (%)

	Very Effective	Effective	Unsure	Ineffective	Very Ineffective
Distributed written materials such as leaflets, pamphlets, posters	0.0	44.0	32.0	20.0	4.00
Clinical practice guidelines	16.7	70.8	8.3	4.2	0.0
Audit and feedback	20.0	76.0	0.0	0.0	4.0
Electronic reminders	16.0	28.0	32.0	24.0	0.0
Interactive workshops	56.0	40.0	4.0	0.0	0.0
Conferences	28.0	56.0	4.0	12.0	0.0
Lectures from experts in the field	32.0	60.0	4.0	4.0	0.0
Summaries of critically appraised research	24.0	56.0	16.0	4.0	0.0
Online, self-paced learning modules	28.0	48.0	16.0	4.0	4.0

Note. There were n = 25 participants, except for the statement in relation to “clinical practice” where the sample size was n = 24.

Table 16. Effectiveness of strategies for effecting clinical change, stratified by occupation (%)

	Profession	Very Effective	Effective	Unsure	Ineffective	Very Ineffective
Distributed written materials such as leaflets, pamphlets, posters	Doctor	0.0	16.7	33.3	33.3	16.7
	Nurse	0.0	66.7	22.2	11.1	0.0
	Allied Health	0.0	44.4	44.4	11.1	0.0
Clinical practice guidelines	Doctor	0.0	83.3	0.0	16.7	0.0
	Nurse	25.0	75.0	0.0	0.0	0.0
	Allied Health	22.2	66.7	11.1	0.0	0.0
Audit and feedback	Doctor	16.7	83.3	0.0	0.0	0.0
	Nurse	22.2	66.7	0.0	0.0	11.1
	Allied Health	22.2	77.8	0.0	0.0	0.0
Electronic reminders	Doctor	16.7	16.7	33.3	33.3	0.0
	Nurse	11.1	44.4	22.2	22.2	0.0
	Allied Health	22.2	22.2	44.1	11.1	0.0
	Doctor	16.7	66.7	16.7	0.0	0.0
	Nurse	55.6	44.4	0.0	0.0	0.0

	Profession	Very Effective	Effective	Unsure	Ineffective	Very Ineffective
Interactive workshops	Allied Health	77.8	22.2	0.0	0.0	0.0
Conferences	Doctor	0.0	50.0	0.0	50.0	0.0
	Nurse	55.6	33.3	11.1	0.0	0.0
	Allied Health	22.2	77.8	0.0	0.0	0.0
Lectures from experts in the field	Doctor	0.0	66.7	16.7	16.7	0.0
	Nurse	44.4	55.6	0.0	0.0	0.0
	Allied Health	44.4	55.6	0.0	0.0	0.0
Summaries of critically appraised research	Doctor	16.7	83.3	0.0	0.0	0.0
	Nurse	22.2	55.6	11.1	11.1	0.0
	Allied Health	33.3	33.3	33.3	0.0	0.0
Online, self-paced learning modules	Doctor	16.7	33.3	16.7	16.7	16.7
	Nurse	44.4	44.4	11.1	0.0	0.0
	Allied Health	22.2	55.6	22.2	0.0	0.0

Note. Sample sizes for each occupation were as follows: doctors (n = 6), nurses (n = 9), and allied health professionals (n = 9), except for the question pertaining to "clinical practice guidelines," for which the nurse sample size differed (n = 8).

5. Does palliative care present unique practice challenges

73.9% of health professionals that responded to this question (n = 23) believe there are aspects of palliative care that make it more difficult than other healthcare areas to effect practice changes, 21.7% said there were not and 4.3% were unsure. When stratified by occupation, 83.3% of doctors, 55.6% of nurses, and 100% of allied health professionals think that there are aspects of palliative care that make it more difficult than other healthcare areas to effect practice changes. Further, 11.1% of nurses believe that there are not aspects of palliative care that make it more difficult than other healthcare areas to effect practice changes, and the remainder were unsure.

Possible suggestions as to why these difficulties exist were put forth by 14 participants, the results are summarised in Table 17.

Table 17. Reasons as to why it is more difficult to effect practice changes in palliative care compared to other healthcare areas

Topic	Frequency by Occupation
Research Difficulties	
Difficulty in recruitment for research/trials	Doctor – 1
Difficult to collect good evidence to effect change	Doctor – 1
Consistent direction of care based on best practice research	Nurse – 1
Established Norms and Traditions	
There is a long tradition of standards and principles of care in many established services which are difficult to change. There is a strong opinion of what is if "right" in terms of care at the end of life without sound evidence to suggest this is the case. We are victims of our own variable definition - every palliative care service will vary according to their referral/admission criteria, who they will see, how to refer and what services they provide. For non-specialists, many people often have no idea what palliative care is and if they do, this could change if they move to a different geographical area	Doctor – 1
These are mostly system and education issues, that to implement changes often take a considerable time, as often people can become accustomed to a way and continue to do this	Doctor – 1
Facing death. Patient dying when acute care is available and death is not the acceptable norm	Nurse – 1
Clients cling on to hope that they will get better and find it hard to accept the palliative route	Nurse – 1
Disciplines often overlap	Doctor – 1
For many years, palliative care has been traditionally delivered by doctors, nurses and allied health employed in specialised settings, or GP's practice nurses and community nursing. Engagement with allied health clinicians outside the traditional public health context has not been well integrated into newer models of care. There are also many situations where patients with non cancer diagnoses - organ failure, or people with multiple co-morbidities, are not being introduced to a palliative pathway or a palliative approach until very late in their disease trajectory, and often just before death. Change is difficult as many people still fear palliative care, or believe that it is synonymous with "doing nothing". Funding models for community palliative care make it hard to have people on their current books for months, or years so patients are admitted with "problems" and then discharged with they become stable. Instead of seeing palliative care as a fully integrated service that can work collaboratively across care settings, integrate between all sectors of health care - public, private, clinical and allied health -	Allied Health Professional – 1

Topic	Frequency by Occupation
really based on patient and family need, we are still seeing and delivering palliative care as a silo service.	
Attitude of being “special, siloed practice”	Doctor – 1
Practitioners beliefs about palliative care and role in their practice	Allied Health Professional – 1
Palliative care is discarded, ignored or not well understood by medical specialties that focus on curative treatment (eg oncology)	Allied Health Professional – 1
Timely or early referrals to palliative care by such specialties is common and denies patients and families comprehensive palliative care	Allied Health Professional – 1
Different specialists have different ideas	Nurse – 1
The truly holistic nature of palliative care	Nurse – 1
The inclusion of family as clients	Nurse – 1
Staffing Issues	
Poor training in critical appraisal	Doctor – 1
Diversity of workforce knowledge and experience	Allied Health Professional – 1
Staff not feeling confident to discuss palliation	Nurse – 1
Patients	
Patients die so often its sometimes hard to see the effect of the change as the patient isn’t around anymore	Allied Health Professional – 1
The variety of goals each client may have as opposed to other health care area	Nurse – 1
Community	
Health literacy in the community around the understanding of end of life care/palliative	Nurse – 1

Of respondents (n = 23), only 31.8% believed there are areas of palliative care research where research evidence recommendations are changing rapidly, whereas 13.6% believed there were not and 54.5% were unsure. When stratified by occupation, 66.7% of doctors believed there are areas that are changing rapidly, in comparison to 22.2% of nurses and 14.3% of allied health professionals. A substantial proportion of respondents were unsure; for example, 55.6% of nurses and 85.7% of allied health professionals.

Finally, 7 participants nominated areas of research where research recommendations are changing rapidly. The results can be found in Table 18.

Table 18. Areas of research that are changing rapidly

Areas of Research	Frequency by Occupation
Symptom Management	
Breathlessness	Doctor – 2
Delirium	Doctor – 3, Nurse - 1
Dementia	Doctor – 1, Nurse – 1
Cannabis Analgesia	Doctor – 1
Pain	Nurse – 1
Nausea	Nurse - 1

Areas of Research	Frequency by Occupation
Services	
Early palliative care	Doctor – 1
Telehealth	Doctor – 1
Service Integration	Doctor – 1
Colead services (sic)	Doctor – 1
Mental health responses - this is a developing area of research	Allied Health Professional - 1
Engagement with GP's and primary care - health care reform with regard to Health Care Homes and Chronic Illness strategies	Allied Health Professional - 1
Patient reported outcomes	Doctor – 1
Other	
We have a great deal of discordant guidelines, especially related to analgesia. I think streamlining these would be the first priority.	Doctor – 1

Discussion

This study has provided health professional perspectives on the priority evidence practice gaps in palliative care. Overall, doctors, nurses and allied health professionals demonstrated reasonable familiarity with terms for change processes. Specific activities for effecting clinical change were widely endorsed by participants, particularly in relation to the need for the healthcare team to agree there is a problem, to locate relevant research evidence and to monitor the effectiveness of change strategies over time. In future, having professionals rank these specific activities in order of importance may provide better insight into which activities to prioritise. In terms of who should be involved in these activities for effecting clinical change, clinical staff and service managers were the most frequently endorsed. Thus, they should be specifically targeted in future interventions to address evidence-practice gaps.

In a finding mirroring that of Kalies et al., only 44.4% of participants said they were aware of existing evidence in the form of guidelines, studies or systematic reviews that might address the most significant, previously identified, practice issue.[2] Reasons why evidence is not being used to address evidence-practice gaps were elicited via an open-ended question, and included issues in relation to the system, time/resources and staff.

Specific knowledge translation strategies to effect clinical change that were endorsed as most effective were audit and feedback, interactive workshops, conferences and lectures in the field. A greater proportion of nurses and allied health professionals endorsed interactive workshops, conferences and lectures from experts in the field as “very effective” in comparison to doctors.

An open-ended question demonstrated that perceived difficulties with research, established norms and traditions, staffing issues and issues in relation to patients make addressing evidence-practice gaps in palliative care particularly challenging. Given the small number of participants, it is challenging to definitively assert a research agenda moving forward (i.e. in relation to areas requiring greater research, or with weak existing research). Semi-structured interview data collected in addition to this survey should be analysed to provide greater clarity. Replicating this survey with a greater number of participants would also provide the means to perform more robust statistical comparisons and provide greater insight into evidence-practice gaps, and how they are perceived differentially by health professionals.

Key Conclusions

- Clinical staff and service managers should be used to effect clinical change.

- Interventions to enhance awareness of existing evidence should be implemented.

- Difficulties with research, established norms and traditions, staffing issues and issues in relation to patients make addressing evidence-practice gaps particularly challenging.

- Audit and feedback, interactive workshops, conferences and lectures in the field are perceived as effective knowledge translation strategies.

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