Received: 25 July 2023 | Revised: 11 March 2024 | Accepted: 13 March 2024

DOI: 10.1111/ajr.13115

AJRH National Rural Health Alliance WILEY

ORIGINAL RESEARCH

A qualitative exploration of the role of a palliative care pharmacist providing home-based care in the rural setting, from the perspective of health care professionals

Natasha J. Downing BPharm, AACP, MPS[1] | **Gemma Skaczkowski PhD**[1] | **Donna Hughes-Barton PhD**[1] | **Helen Stone BPharm, BSc, MPS, GAICD**[2] | **Leah Robinson**[3] | **Kate M. Gunn PhD**[1]

[1]IIMPACT in Health, Department of Rural Health, Allied Health and Human Performance, University of South Australia, Adelaide, South Australia, Australia

[2]Pharmaceutical Society of Australia, Adelaide, South Australia, Australia

[3]Pharmaceutical Society of Australia, Sydney, New South Wales, Australia

Correspondence
Gemma Skaczkowski, IIMPACT in Health, Department of Rural Health, Allied Health and Human Performance, University of South Australia, North Terrace, Adelaide, SA, Australia.
Email: gemma.skaczkowski@unisa.edu.au

Funding information
University of South Australia

Abstract

Introduction: Pharmacists are often not recognised as a core part of palliative care teams, despite their ideal placement to assist with the burden of medication management.

Objective: This study explored the role of pharmacists working in the rural palliative care team, in the home-based setting.

Design: Health care professionals working with palliative care patients in rural South Australia participated in semi-structured interviews. Data were analysed using thematic analysis.

Findings: Data from 20 participants identified 10 themes. Theme 1: *This model of care gives patients a choice*. Theme 2: *The pharmacist is a trusted source of support and information*. Theme 3: *Patient, carer and family distress is reduced*. Theme 4: *Enables patients to stay at home by improving medication knowledge and decreasing burden;* 4.1—Patient, carer and family's understanding about medication management is improved, 4.2—Patient, carer and family travel is decreased, 4.3—Burden associated with getting to the doctor is decreased. Theme 5: *Communication between all parties is enhanced*; 5.1—Enhanced communication between the patient and health care team, 5.2—Enhanced communication within the health care team. Theme 6: *Patient, carer and family burden of coordinating prescriptions and medications is reduced*. Theme 7: *Benefits health care professionals by improving medication knowledge, reducing workload and stress;* 7.1—Understanding about medications and their management is improved, 7.2—Workload is reduced, 7.3—Work-related stress is reduced. Theme 8: *The disparity of care between rural and urban patients is reduced*. Theme 9: *Helps to address rural workforce shortages*. Theme 10: *Challenges of this model of care*; 10.1—A need for greater pharmacist capacity to meet demand, 10.2—A need for

increased and sustained funding for the pharmacist role, 10.3—Large amount of travel to get to patients.

Conclusion: Rural health care professionals are supportive of pharmacists working as part of the palliative care team in home-based settings and identified many benefits of this model of care.

KEYWORDS

end of life, health professional, home, medication burden, palliative, pharmacist

1 | INTRODUCTION

The World Health Organization defines palliative care as an approach that 'improves the quality of life of patients and that of their families who are facing challenges associated with life-threatening illness, whether physical, psychological, social or spiritual'.[1] Medication management is an important part of palliative care, but this can add a significant practical and emotional burden to patients, their carers and families.[2–4] This burden may be particularly pronounced in rural settings, where access to medicines, palliative services and support networks is more limited.[5,6]

Many palliative care patients express a preference for being cared for at home.[7] Home-based care is defined as 'the provision of health services by formal and informal caregivers in the home in order to promote, restore, and maintain a person's maximum level of comfort, function, and health including care towards a dignified death'.[8] Many people prefer to be cared for within their own home, where they are more comfortable and where they can be closer to their family members, friends, pets and in familiar surroundings.[9,10] However, home-based care can also increase the burden posed by aspects of palliative care, such as medication management.

Pharmacists are ideally suited to assist with decreasing this burden and optimising medication regimes.[2] Pharmacists' areas of speciality include medication reviews, symptom management, monitoring and reporting of adverse drug reactions and interactions, counselling and education for patients and caregivers.[11,12] They are also able to educate and support other health care professionals in the palliative care team.[13] However, pharmacists are not typically recognised as a core part of palliative care teams, particularly in the context of home-based care.[11,14–16] Moreover, a recent position paper from the UK identified that patients and caregivers were unaware of the potential for pharmacists to help with medication management at home.[3]

An Australian study that explored the inclusion of a pharmacist in a community palliative care team, which included home-based care, found substantial benefits for the broader team, patients and carers.[17] It found that patients had improved medication management and decreased medication errors, resulting in improved medication outcomes.[17] It also found that other members of the health care team had improved knowledge on palliative medications, leading to an increased skillset.[17] They believed a 'foreseeable outcome would be fewer hospital admissions for the palliative care patient and a reduction in prescribing of unnecessary medications'.[17] pg.11

Another recent Australian study examining the current model of community palliative care at a large regional palliative care service found that many issues associated with medication management could be

What is already known on this subject

- Medication management is an important part of palliative care that provides symptomatic relief and improves quality of life.
- Medication management can be burdensome for patients, families and health care professionals.
- Additional challenges are experienced in rural areas, where patients may find it difficult to access assistance for their medications.
- Pharmacists are ideally trained to assist with this burden.

What this paper adds

- Supports the role of the pharmacist working in a multidisciplinary palliative care team, particularly in rural, home-based settings.
- Having a pharmacist as part of the palliative care team helps to give patients the choice to stay at home.
- This role can decrease medication-related burden and stress for patients, their carers and family members, and for other rural health care professionals working with palliative patients.

addressed by the addition of a pharmacist to the team, including gaps in access, knowledge and support for patients.[11] Further, a Swedish study examining the inclusion of a dispensing pharmacist on a palliative care team also identified benefits for drug logistics, stock management and a reduction in medication costs.[18] The pharmacist role also allowed nurses more time for direct patient care, as opposed to drug management.[18] Adding a pharmacist to palliative care teams also makes economic sense, with a recent study by Lehn et al showing that the addition of a pharmacist to the team provided a favourable return on investment due to physician time saved and the identification of preventable adverse drug events.[19]

A 2016 review exploring the role of pharmacists in palliative care teams identified that pharmacists play significant roles in both direct patient care and in supporting the rest of the multidisciplinary team.[20] Pharmacist involvement was related to improved patient outcomes, including greater quality of life and symptom control, more cost-effective medication regimens and improvements in medication-related knowledge and skills for other members of the treating team.[20] However, of the 24 studies identified in the review, only three examined pharmacists' roles in home-based care settings and none examined this role in a rural context.[20]

One quality assurance report examined the process of developing a rural palliative care pharmacy service in Scotland, finding that the pharmacist had made care more accessible for patients.[21] However, we identified no research studies examining home-based palliative care pharmacy services in rural Australia.

To improve the provision of these services, we need a better understanding of the challenges and benefits of this model of care. In 2022, the Pharmaceutical Society of Australia (PSA) began a pilot project through The South Australian Department for Health and Wellbeing 'Palliative Care 2022 Grants Program', in which a pharmacist was employed to provide home-based care services in regional South Australia. This provides a unique opportunity to assess the real-world impact of this model of care. This study aimed to explore the experiences of rural health care professionals who have worked with palliative care patients involved in the PSA pilot project.

2 | METHOD

2.1 | Design

This study employed a qualitative descriptive approach, underpinned by an essentialist epistemology. Semi-structured one-on-one interviews were conducted via Zoom (due to COVID-19 restrictions) by authors DHB, ND, GS and KG. ND is an accredited and general practice pharmacist. At the time of the interviews, she was working as the palliative care pharmacist for the PSA's Home Palliative Care Pharmacist project. Where participants had worked directly with author ND in her clinical role, authors DHB, GS or KG performed the interviews. Data were collected between February and April 2023.

TABLE 1 Interview topic guide.

- Background demographics
- Reflect on their experiences working with patients involved in the PSA Home Palliative Care Pharmacist project
- Potential benefits of this role?
- Any barriers or challenges working with this model of care?
- Any particular benefits to having a palliative care pharmacist in a rural area? Why/why not?
- Any particular challenges with this model of care in a rural area?
- Any additional activities that you think a pharmacist could perform in the rural palliative care setting?
- Views on the potential roll out of this model of care more broadly in rural Australia

2.2 | Participants

Participants were health care professionals working with palliative care patients in rural South Australia. Herein, 'rural' collectively refers to inner regional, outer regional, remote, and very remote South Australia, as defined by the Accessibility and Remoteness Index of Australia (ARIA+).[22] Participants needed to be familiar with the Pharmaceutical Society of Australia (PSA) Home Palliative Care Pharmacist project in the mid-North of South Australia and have provided care to patient(s) with whom the palliative care pharmacist had worked. This was to ensure that interview comments were based on experience with the project and not a hypothetical scenario.

2.3 | Procedures and materials

Participants were recruited via advertising through social media, emails and flyers distributed to known contacts by the authors and the Department of Rural Health at the University of South Australia. People interested in participating were invited to make contact with ND via phone or email. Due to the small size of the pilot project under investigation, broader recruitment was not deemed necessary. Prior to each interview, eligibility was checked, confidentiality was explained and informed consent was obtained. Demographic details were collected prior to

participants being asked to describe their experiences working with palliative care patients. The interview topic guide is shown in Table 1. Interviews were audio-recorded and professionally transcribed verbatim. Data collection continued until data saturation was reached.[23] Interviews ranged in length from 6–23 min.

2.4 | Qualitative analyses

Data were transcribed verbatim; then, transcripts were analysed using thematic analysis as described by Braun and Clarke, using a descriptive, essentialist approach, meaning that participants' comments were treated as direct insights into their experience.[24] Additionally, an inductive or bottom-up approach was used, meaning that themes were derived from the data, rather than pre-defined theory. Transcripts were anonymised. Five transcripts were read and independently coded by ND and GS. Results were discussed to assess consistency, and the remaining transcripts were then coded by ND. Data were arranged in a Thematic Framework[25] and reviewed and discussed by ND, GS and KG until consensus about themes and their labels was reached. A minimum of three participants needed to provide comments relating to a topic for it to be considered a theme.

The reporting of results was aided by Braun & Clarke's 15-point thematic analysis checklist[26] and the Consolidated Criteria for Reporting Qualitative Research (COREQ).[27]

3 | RESULTS

Participant demographics are shown in Table 2. The sample comprised 15 nurses, three general practitioners and two pharmacists.

The analysis identified 10 main themes and several subthemes (Table 3). Most themes related to the benefits of a pharmacist working in the palliative care team for the patient, their carers and family, and also for health care professionals themselves. The tenth theme focused on challenges of this model of care.

3.1 | Theme 1: This model of care gives patients a choice

Participants noted that the pharmacist role enabled patients to stay home for longer, by facilitating patients and families to manage the medications on their own. In this way, the pharmacist role allowed patients a greater choice in where they wanted to receive care and where they want to die.

TABLE 2 Demographic characteristics of the sample.

Characteristic	*n* (%)
Gender	
Female	15 (75%)
Male	5 (25%)
Remoteness[a]	
Outer Regional Australia	12 (60%)
Remote Australia	3 (15%)
Very Remote Australia	5 (25%)
	Mean (SD), range
Age	50.1 years (SD = 12.75), 30–75
Years working in their profession	26.3 years (SD = 15.97), 5–54
Years working in a rural area	22.9 years (SD = 16.67), 1–54

[a]Based on the Accessibility and Remoteness Index of Australia (ARIA+).

> They can stay home for longer. They don't have to necessarily go to hospital. They can then be supported to die comfortably at home.
>
> (P3)

3.2 | Theme 2: The pharmacist is a trusted source of support and information

Several participants identified that a benefit of the pharmacist role was the relationship and the sense of trust between the pharmacist and the patients or family members. Participants noted that patients and family members felt they had someone they could contact who was interested in their care and who they felt confident could provide them with advice.

> ....they know the family and all of those things, they have that as part of their matter of trusting [the pharmacist] and what she's telling them because it's a really confusing time for them....
>
> (P7)

3.3 | Theme 3: Patient, carer and family distress is reduced

Many participants identified that the pharmacist role helped to reduce patient, carer and family distress. This was by taking away some of the practical burden of medication management and liaising with services on their behalf, and also by providing a source of reassurance.

TABLE 3 Themes and subthemes.

Theme	Subthemes
1. This model of care gives patients a choice	N/A
2. The pharmacist is a trusted source of support and information	N/A
3. Patient, carer and family distress is reduced	N/A
4. Enables patients to stay at home by improving medication knowledge and decreasing burden	4.1 Patient, carer and family understanding about medication management is improved 4.2 Patient, carer and family travel is decreased 4.3 Burden associated with getting to the doctor is decreased
5. Communication between all parties is enhanced	5.1 Enhanced communication between the patient and health care team 5.2 Enhanced communication within the health care team
6. Patient, carer and family burden of coordinating prescriptions and medications is reduced	N/A
7. Benefits health care professionals by improving medication knowledge, reducing workload and stress	7.1 Understanding about medications and their management is improved 7.2 Workload is reduced 7.3 Work-related stress is reduced
8. The disparity of care between rural and urban patients is reduced	N/A
9. Helps to address rural workforce shortages	N/A
10. Challenges of this model of care	10.1 A need for greater pharmacist capacity to meet demand 10.2 A need for increased and sustained funding for the pharmacist role 10.3 Large amount of travel to get to patients

> It decreases anxiety and worry, I think, to the carer as well. Also, that they feel that they can also manage it at home, that they are able to help administer these medications because they've got that support there.
>
> (P19)

Importantly, participants noted that the pharmacist role helped to reduce the stress of not only the patients but also the family members. As mentioned by one participant, *'often the most forgotten part of a palliative care journey is the family that are trying to care for these people' (P13)*. The pharmacist role allowed family members to feel supported through this process.

3.4 | Theme 4: Enables patients to stay at home by improving medication knowledge and decreasing burden

One of the key benefits of the pharmacist role was that it enabled patients to receive care at home through three key mechanisms: (1) improving understanding of medications such that these can be managed at home, (2) decreasing the need for patients to travel to receive care and (3) providing timely care in a rural setting where doctors' appointments can be difficult to obtain.

3.4.1 | Subtheme 1: Patient, carer and family understanding about medication management is improved

A palliative care pharmacist is able to educate patients, their carers and family about medications, giving them increased understanding and confidence in medication management and enabling them to stay at home. Most participants said that the pharmacist was a valued source of information and reassurance, and that patients and families appreciated having someone that they could contact to ask questions, and who had the time to help them.

> Patients often feel that they can speak more freely to the pharmacist working here as they're not rushed to go and see the next patient. For example, in comparison to the general practitioner who's often doing a client home visit. The pharmacist was able to spend more time, answer more questions and explain in more detail what's expected and what's kind of happened.
>
> (P13)

> ... more time to spend with the family members than we would normally be able to in general practice, and so that gives so much

> more ability to, I guess, summarise care and make sure that family members and patients know exactly what's going on ... and I think there's been a lot of benefits for family and friends of the patients...
>
> (P1)

3.4.2 | Subtheme 2: Patient, carer and family travel is decreased

Many participants noted that a key reason why the pharmacist role enabled patients to stay at home was because it decreased the amount of travel required by patients, carers and families. The pharmacist could source and deliver medications directly to the patient and could also ensure that the appropriate medications were available by liaising with the community pharmacy.

> It covers the stress and worry about travelling to get medications at short notice, the stress and worry about finding that they've run out of a script on a Friday afternoon, what do I do? The ability to liaise with the doctors, it helps that loop of communication.
>
> (P6)

It was noted that this was particularly important in a rural area, where access to pharmacies and medications could be challenging.

> But I think you're so challenged by location, the distance that we cover, and the access to pharmacies, the opening hours of pharmacies, there aren't always pharmacists in the pharmacies.
>
> (P17)

3.4.3 | Subtheme 3: Burden associated with getting to the doctor is decreased

Some participants also noted that the pharmacist role decreased the burden associated with visiting the doctor. One aspect of this that overlapped with the above subtheme, was the reduced need to travel. Another aspect was that in rural areas, getting appointments in a timely manner could be difficult and the pharmacist helped to bridge this gap.

> Yeah, it saves them having to travel in to see the doctor or specialists, the pharmacist can do a lot of that liaising which I think is a great benefit and you can keep them at home...
>
> (P3)

> I think because we've had such an issue with doctors regionally, and getting appointments, a lot of our patients will be like, I can't get in to see my doctor for 6 weeks and my scripts will be gone by then.
>
> (P7)

3.5 | Theme 5: Communication between all parties is enhanced

A common theme emerging from the interviews with most participants in this study was that the palliative care pharmacist improved communication between patients, carers, family members and health care professionals, and between health care professionals themselves.

3.5.1 | Subtheme 1: Enhanced communication between the patient and the health care team

Most participants identified that the pharmacist role bridged a gap between the patient and the health care team and was someone who can help the patient communicate with other health care professionals. Participants noted that the pharmacist was able to liaise with health care professionals about medication changes and then explain them to the patient, allowing for more efficient and timely care.

> I think it certainly improves the communication and to be the advocate for the patient, to make sure that their pharmaceutical needs are met.
>
> (P16)

> ...[the pharmacist will] message us and say, oh I've caught up with this lady, she's travelling okay or she's not using her medication, you might need to follow her up. So [the pharmacist] is a great prompt for that.
>
> (P7)

3.5.2 | Subtheme 2: Enhanced communication within the health care team

Most participants also noted that the pharmacist role enhanced communication and coordination of care within the health care team. The pharmacist acted as a conduit between health care professionals that ensured a more efficient and timely delivery of patient care.

> I think it works best between the nursing staff and the client with the pharmacy directly involved, rather than nursing having to go to a pharmacy or to a GP and get them to review medications – changes can be made quicker and more efficiently to I suppose, give the best care for the palliative care client.
>
> (P5)

> I think it is the missing link that's not been there for a very long time, and not only would it be a better outcome for the patient, but it greatly assists the link between the GPs, the nursing staff, the care staff, and the family and the patient.
>
> (P11)

3.6 | Theme 6: Patient, carer and family burden of coordinating prescriptions and medications is reduced

Participants noted that the pharmacist reduced the burden of coordinating prescriptions and medications in a few different ways. The pharmacist was able to coordinate prescriptions by liaising with the patient, the health care provider and their supply pharmacy, to ensure that the necessary medication was available. The pharmacist was then able to deliver the medication, which meant that patients, their carers and family members did not need to travel.

> In the rural locations, the chemists don't always have stock on hand, so the pharmacist has been double checking with them to make sure. Or even pre-emptively saying to pharmacists, we look like we might be needing some of this drug soon, so can you get stock in.
>
> (P17)

> ....[the pharmacist is] a great resource and she can organise medication, she can liaise with pharmacies, she can help patients get medications and their families too and she'll deliver things, so family members don't have to travel to pick things up if that's needed or run – or track down scripts and things for them.
>
> (P3)

3.7 | Theme 7: Benefits health care professionals by improving medication knowledge, reducing workload and stress

Several benefits for health care professionals were also identified, in regard to having a palliative care pharmacist in the palliative care team, in particular with providing assistance with medication queries, medication management, decreasing their workload and workload associated stress.

3.7.1 | Subtheme 1: Understanding about medications and their management is improved

The results highlighted that, the pharmacist role not only improved patients' and families' understandings of medication management, but it provided a source of education for health care professionals. Several participants commented that they appreciated having a dedicated person that they could contact with queries and who could provide decision support.

> .... the pharmacist adds another degree of understanding, and a little understanding to help with education and support. For example, things like administration techniques, timing of medications, contra-indications, all those sorts of areas are taught to a level higher than was done within the role of the scope of the registered nurse.
>
> (P13)

> If we're not sure about decisions, not sure what to tell them, we can go to [the pharmacist] for advice and she'll say, well recommend this or do that. She's just very supportive really.
>
> (P3)

3.7.2 | Subtheme 2: Workload is reduced

Building on the above subtheme, participants reported that the pharmacist role reduced staff workloads by saving staff time and effort in medication management, and by providing a quick and easily contactable source of information.

> It would save so much time for the palliative care clinicians, so much time for the GPs, and so much time on our health units. Because you would be avoiding hospitals when people

> are in pain crisis or when they've got nausea that's uncontrolled that a pharmacist can certainly deal with.
>
> (P10)

Other participants noted that the pharmacist role reduced the number of tasks needing to be completed by other members of the health care team, such as tracking down available medications.

> It might even be something as simple as, if I'm writing a script out for morphine, there's so many different concentrations that we could do. But they may only have one particular concentration vial of morphine at the pharmacy ... So she can say oh, don't bother writing a script for that because we don't have that one – write a script for this one. Then that's much easier than me writing a script and then 20 min later getting a call back and so, okay which size do you have, sort of rejigging everything and doing another script...
>
> (P20)

3.7.3 | Subtheme 3: Work-related stress is reduced

As a consequence of the two previous subthemes, participants reported that the pharmacist role reduced their work-related stress by providing them with greater professional support and by sharing the emotional burden.

> So you're supported. If things are going wrong or – I know a couple of my clients, the pain medications were no longer working very well. I could go back and report. I could involve them with the client, so they're supporting the client and they're supporting you as a professional.
>
> (P12)

> ... I guess if there's more members of the team within that care then that emotional stress or workload is spread a bit more evenly and so it's not just a burden from one person.
>
> (P1)

3.8 | Theme 8: The disparity of care between rural and urban patients is reduced

Participants identified that this project was particularly beneficial to rural patients, due to a lack of services in rural areas. They reported a perception that country patients often missed out on services that might be available to patients living in major cities, and this project was one way of addressing that disparity.

> ...patients benefit from it because I think sometimes the country patients miss out, it's not as easy to access services and so it just helps them and they don't have to travel so much, you know?
>
> (P3)

3.9 | Theme 9: Helps to address rural workforce shortages

Participants also noted that the pharmacist role helped to address rural workforce shortages. In particular, the pharmacist was identified as reducing the pressure on general practitioners and nurses by providing an additional and specialised source of support that can be accessed more quickly than a GP appointment.

> I think because we've had such an issue with doctors regionally, and getting appointments, a lot of our patients will be like, I can't get in to see my doctor for 6 weeks and my scripts will be gone by then
>
> (P7)

3.10 | Theme 10: Challenges of this model of care

Participants also identified barriers associated with providing the palliative care pharmacist role, such as pharmacist workforce shortages, funding the role and travel, particularly in remote areas.

3.10.1 | Subtheme 1: A need for greater pharmacist capacity to meet demand

Participants highlighted shortages amongst the pharmacist workforce, which may make it difficult to fulfil the role.

> I think if I was to say a challenge, I think that [the pharmacist] is one person and the need is growing. I think that when there're crises often they're at short notice and so it's a lot of burden on [the pharmacist] to do it all, is what I would say.
>
> (P6)

3.10.2 | Subtheme 2: A need for increased and sustained funding for the pharmacist role

Participants noted concerns surrounding funding the role and how this will be sustained.

> I don't know how you'd do that, but if you could pharmacists to work, even if it was 2 days a week, depending on the LHN. If money was to fall out of the sky from the government and actually end up with the LHN and that person was employed by ... I don't know how – who pays for that ...
>
> (P10)

3.10.3 | Subtheme 3: Large amount of travel to get to patients

Participants discussed the large amount of travel that the pharmacist may have to do to perform the role and raised concerns with the pharmacist having the capacity to do this large amount of travel.

> Well, they cover a large area a lot of the time. So they themselves aren't supported, because they're covering such a huge, vast area with a lot of palliative-care clients and they just don't have the physical ability to be able to be everything to everybody all the time.
>
> (P12)

4 | DISCUSSION

The palliative journey can often be stressful and burdensome for patients, their carers and family members. For patients receiving home-based care, including a pharmacist in the palliative care team may help to alleviate some of the burden associated with medication management. In the current study, health care professionals reported that having a pharmacist involved in the palliative care team was highly beneficial for the patient, their carers and family members, as well as for the health care staff themselves. A clear benefit of the pharmacist role was that it enabled patients to stay at home. Home-based care is becoming more common, and many patients chose to receive palliative care in this setting, with a significant number of patients also choosing to die at home.[9,10] However, the option to stay at home is not always available, and this can be particularly challenging for people living in rural areas, who face a lack of support services and networks in palliative care.[5,6] Indeed, health care professionals in the current study explicitly noted that a benefit of this project was that it reduced the disparity between urban and rural palliative care patients, and gave rural patients more choice.

As identified by participants in a past study of a large regional palliative care centre in Australia,[11] participants in the current study noted difficulties in accessing medications due to their geographical location. Rural patients often have to travel long distances to access care,[28] rural areas are experiencing high workforce shortages,[29,30] and rural pharmacies do not always stock the required medications.[31] Having a pharmacist visit patients at home, and then liaise with their general practitioner, enables them to avoid travel. This is particularly important for palliative patients, who may be very unwell and experiencing high levels of pain.

This study also emphasised the key role that pharmacists played in liaising with other health care professionals, improving the coordination of care, and in managing prescriptions and delivering medication. Combined with benefits for patient education and support, the health care professionals in this study recognised that there were several aspects of the pharmacist's role that helped to reduce patients', carers' and family members' distress.

There were also several benefits of this model of care for health care staff, consistent with past research.[17,18] Improved understanding of medications and their management was identified as a benefit for other health care professionals, consistent with Hussainy et al.[17] In addition, the pharmacist role may help to reduce the workload and stress of rural health care staff. This aligns with a Swedish study of a dispensing pharmacist on a palliative care team, which found that one benefit of this model of care was that it allowed nurses more time for other patient care activities.[18] Workforce shortages are an increasing concern in rural areas.[30] In addition, the coordination of care between different health care professionals can be a source of stress for palliative patients, making them feel overburdened.[32] The current project identified that having a pharmacist involved in the palliative care team can help to bridge this gap.

There were also some key challenges identified relating to implementing and sustaining this model of care. Participants highlighted the need for greater capacity and concerns over securing sustainable funding for the role. The large amount of travel required by the rural pharmacist also influences their patient capacity. However, it is worth noting that other research has shown that the addition of a pharmacist to the palliative care team provided favourable return on investment due to physician time saved and preventable adverse drug events.[19] Further

work is needed to examine sustainable funding models and the optimal design and implementation of this role on a broader scale.

4.1 | Limitations and future directions

As outlined in our Methods section, our lead author (ND) is the current palliative care pharmacist for the PSA's Home Palliative Care Pharmacist project. To address this potential for bias, interviews with participants who had worked closely with ND were conducted by another interviewer, and ND only worked with de-identified transcripts. Due to the small nature of this pilot project and there only being one pharmacist working in this role, this conflict was unavoidable. However, we still consider these findings to be a valuable source of information on a unique model of care that has the potential to be rolled out on a much broader scale. Finally, two additional authors (HS and LR) designed and coordinate the PSA's Home Palliative Care Pharmacist pilot project. To address the potential for bias, these authors were not involved in data collection or analysis.

This study was limited to a small sample of health professionals from one area of rural South Australia. Should the project be expanded, future research should examine the experiences of other health care professionals and patients using this service, in other areas of rural Australia.

4.2 | Conclusion

This study highlights the significant benefits to having a pharmacist as part of the home-based palliative care team in the rural setting. These findings may be helpful in designing and implementing the role of a palliative care pharmacist on a broader scale. Consideration is needed on how to fund the role, address limitations on capacity, and assist the pharmacist with long-distance travel.

AUTHOR CONTRIBUTIONS

Natasha J. Downing: Conceptualization; methodology; formal analysis; investigation; writing – original draft; writing – review and editing; visualization; project administration. **Gemma Skaczkowski:** Conceptualization; methodology; investigation; formal analysis; writing – original draft; writing – review and editing; project administration; supervision; visualization. **Donna Hughes-Barton:** Formal analysis; investigation; writing – review and editing; visualization. **Helen Stone:** Conceptualization; writing – review and editing. **Leah Robinson:** Conceptualization; writing – review and editing. **Kate M. Gunn:** Conceptualization; methodology; investigation; writing – review and editing; visualization; supervision; funding acquisition.

ACKNOWLEDGEMENTS

We gratefully acknowledge the health professionals who participated in this study. Open access publishing facilitated by University of South Australia, as part of the Wiley - University of South Australia agreement via the Council of Australian University Librarians.

FUNDING INFORMATION

This study was supported by the Department of Rural Health Research Scheme at the University of South Australia.

CONFLICT OF INTEREST STATEMENT

At the time of the study, author ND was employed as the pharmacist in the Pharmaceutical Society of Australia (PSA) Home Palliative Care Pharmacist pilot project. Authors LR and HS designed and coordinated the pilot project. As described in the manuscript, author ND did not interview participants with whom she had directly worked in her clinical role. Authors LR and HS were not involved in data collection or analysis.

DATA AVAILABILITY STATEMENT

Research data are not shared.

ETHICS STATEMENT

Ethics approval was granted by the University of South Australia's Human Research Ethics Committee (protocol number: 205219).

ORCID

Gemma Skaczkowski https://orcid.org/0000-0003-0715-3563
Donna Hughes-Barton https://orcid.org/0000-0002-4764-7528
Kate M. Gunn https://orcid.org/0000-0003-0837-6814

REFERENCES

1. World Health Organization. Palliative care. 2022. Available from: https://www.who.int/news-room/fact-sheets/detail/palliative-care. Accessed 29 Nov 2022.
2. Wilson E, Caswell G, Latif A, Anderson C, Faull C, Pollock K. An exploration of the experiences of professionals supporting patients approaching the end of life in medicines management at home. A qualitative study. BMC Palliat Care. 2020;19:66.
3. Latif A, Faull C, Waring J, Wilson E, Anderson C, Avery A, et al. Managing medicines at the end of life: a position paper for health policy and practice. J Health Organ Manag. 2021;35:368–77.
4. Pollock K, Wilson E, Caswell G, Latif A, Caswell A, Avery A, et al. Family and health care professionals managing medicines

for patients with serious and terminal illness at home: a qualitative study. Health Serv Deliv Res. 2021;9:1–162.
5. Moorhouse C, George M, Smith B. Palliative care in rural Australia: involving the community in multidisciplinary coordinated care. Aust J Prim Health. 2000;6:141–6.
6. Kaasalainen S, Brazil K, Williams A, Wilson D, Willison K, Marshall D, et al. Barriers and enablers to providing palliative care in rural communities: a nursing perspective. J Rural Commun Dev. 2012;7:4–19.
7. Pollock K. Is home always the best and preferred place of death? BMJ. 2015;351:h4855.
8. Omoyeni N, Soyannwo O, Aikomo O, Iken O. Home-based palliative care for adult cancer patients in Ibadan-a three year review. Ecancermedicalscience. 2014;8:490.
9. Doyle D, Hanks GWC, MacDonald N. Oxford textbook of palliative medicine. 2nd ed. New York: Oxford Medical Publications, Oxford University Press Inc; 1998.
10. Clinical Oncological Society of Australia, The Cancer Council Australia and the National Cancer Control Initiative. Optimising Cancer Care in Australia. Melbourne: National Cancer Control Initiative; 2002. pp. 1–122.
11. Kuruvilla L, Weeks G, Eastman P, George J. Medication management for community palliative care patients and the role of a specialist palliative care pharmacist: a qualitative exploration of consumer and health care professional perspectives. Palliat Med. 2018;32:1369–77.
12. Walker KA. Role of the pharmacist in palliative care. Prog Palliat Care. 2010;18:132–9.
13. Tait P, Moris B, To T. Core palliative medicines: meeting the needs of non-complex community patients. Aust Fam Physician. 2014;43:29–32.
14. Bognar J. Palliative care: a primary care pharmacist perspective. Pharmacy (Basel). 2022;10:81.
15. O'Connor M, Pugh J, Jiwa M, Hughes J, Fisher C. The palliative care interdisciplinary team: where is the community pharmacist? J Palliat Med. 2011;14:7–11.
16. Geiger J, Enck G, Luciani L, Fudin J, McPherson ML. Evolving roles of palliative care pharmacists. J Pain Symptom Manag. 2022;64:e357–e361.
17. Hussainy SY, Box M, Scholes S. Piloting the role of a pharmacist in a community palliative care multidisciplinary team: an Australian experience. BMC Palliat Care. 2011;10:16.
18. Norrstrom B, Cannerfelt I, Frid H, Roos K, Ramstrom H. Introduction of pharmaceutical expertise in a palliative care team in Sweden. Pharm World Sci. 2010;32:829–34.
19. Lehn J, Gerkin R, Kisiel S, O'Neill L, Pinderhughes S. Pharmacists providing palliative care services: demonstrating a positive return on investment. J Palliat Med. 2019;22:644–8.
20. Krzyaniak N, Pawtowska I, Bajorek B. An overview of pharmacist roles in palliative care: a worldwide comparison. Med Paliatywna w Prakt. 2016;10:160–73.
21. Akram G, Corcoran ED, MacRobbie A, Harrington G, Bennie M. Developing a model for pharmaceutical palliative care in rural areas-experience from Scotland. Pharmacy (Basel). 2017;5:6.
22. Australian Bureau of Statistics. 1270.0.55.005 – Australian statistical geography standard (ASGS): volume 5 – remoteness structure, July 2016. Canberra: ABS; 2018.
23. Fusch PI, Ness LR. Are we there yet? Data saturation in qualitative research. Qual Rep. 2015;20:1408–16.
24. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3:77–101.
25. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Med Res Methodol. 2013;13:117.
26. Braun V, Clarke V. Successful qualitative research: a practical guide for beginners. London: SAGE Publications Ltd; 2013.
27. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19:349–57.
28. Gardiner FW, Richardson AM, Bishop L, Harwood A, Gardiner E, Gale L, et al. Healthcare for older people in rural and remote Australia: challenges for service provision. Med J Aust. 2019;211:363–4.
29. Cosgrave C. Social determinants of rural Health workforce retention: a scoping review. Int J Environ Res Public Health. 2019;16:314.
30. Australian Institute of Health and Welfare. Rural and Remote Health. Canberra, Australia: Australian Government; 2022.
31. SA Health. Palliative care needs in South Australia. 2019.
32. Reeves E. Care coordination in palliative home care: who plays the key role? Int J Integr Care. 2020;20:1–9.

How to cite this article: Downing NJ, Skaczkowski G, Hughes-Barton D, Stone H, Robinson L, Gunn KM. A qualitative exploration of the role of a palliative care pharmacist providing home-based care in the rural setting, from the perspective of health care professionals. Aust J Rural Health. 2024;00:1–11. https://doi.org/10.1111/ajr.13115