Community Pharmacists' Attitudes Toward Palliative Care: An Australian Nationwide Survey

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Abstract

Background: Pharmacists are among the most accessible health care professionals in the community, yet are often not involved in community palliative care teams.

Objective: We investigated community pharmacists' attitudes, beliefs, feelings, and knowledge about palliative care as a first step towards determining how best to facilitate the inclusion of community pharmacists on the palliative care team.

Method: A cross-sectional descriptive survey design was used.

Subjects: Community pharmacists around Australia were invited to participate; 250 completed surveys were returned.

Measurements: A survey was constructed to measure pharmacists' knowledge and experience, emotions and beliefs about palliative care.

Results: Pharmacists were generally positive about providing services and supports for palliative care patients, yet they also reported negative beliefs and emotions about palliative care. In addition, pharmacists had good knowledge of some aspects of palliative care, but misconceptions about other aspects. Pharmacists' beliefs and knowledge about palliative care predicted—and therefore underpinned—a positive attitude towards palliative care and the provision of services and supports for palliative care patients.

Conclusion: The results provide evidence that pharmacists need training and support to facilitate their involvement in providing services and supports for palliative care patients, and highlight areas that training and support initiatives should focus on.

Introduction

BY FAR THE GREATEST PROPORTION of palliative care occurs in the community, particularly for people with advanced cancer.^{1,2} Approximately 58% of people identify dying at home as their preferred care option³ and 90% of patient care in the final year of life occurs there.⁴ Health care is increasingly being moved from hospital to the home,² and care provision is supported by family and community primary health care professionals.⁵

The community pharmacist is one of the most accessible health professionals in the community.⁶ Visiting a pharmacist is convenient for most, even those who have limited access to transport.⁷ Pharmacists are also easier to approach than other primary care providers, especially outside normal business hours.⁸ However pharmacists are not typically involved in the community-based palliative care team.

One barrier community pharmacists face is the lack of training in palliative care.^{9–11} Community pharmacists from urban and rural communities in Australia reported that they deliver palliative care services infrequently and consequently lack knowledge in this area.¹² Further, community pharmacists who dispense medications to home-based palliative care patients are often unfamiliar with uncommon palliative care medications¹³ and often have misconceptions about opioid use.¹⁴

In addition, research suggests that community pharmacists may be reluctant to be involved in palliative care.¹² Thus, any training should also work towards fostering positive attitudes towards their involvement in the palliative care interdisciplinary team.^{15,16} Nurses' positive attitudes have been found to have a positive impact on both quality of patient care¹⁷ and family participation in care,¹⁸ as well as facilitating learning of factual knowledge.¹⁹ Taken together, in order to increase

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TABLE 1. LOCATIONS OF COMMUNITY PHARMACISTS BY STATE OR TERRITORY

State	Metropolitan	Location Regional	Rural/remote	Not reported	Total
New South Wales	49	23	9	1	82
Northern Territory	1	0	1	0	2
Queensland	26	17	11	0	54
South Australia	14	3	7	1	25
Tasmania	0	3	2	0	5
Victoria	38	9	1	0	48
Western Australia	28	3	3	0	34
Total	156	58	34	2	250

community pharmacists' involvement in palliative care, it is important to determine what affects and underpins community pharmacists' attitudes.

Objective

In this study the primary aim was to examine community pharmacists' attitudes towards palliative care. The two main research questions were (1) What are community pharmacists' attitudes towards providing services and supports for palliative care patients? and (2) What are the predictors of community pharmacists' attitudes towards providing services and supports for palliative care patients?

Methods

Design

A cross-sectional descriptive survey design was used.

Recruitment

The Australian business telephone directory website was used to obtain a random sample of pharmacies stratified by state. Community pharmacies were identified by searching for 'pharmacy' in each of the seven Australian states. A random number between one and nine was generated to choose the starting point for each list. We recorded the first address and then every seventh subsequent address; surveys were posted to the 1002 pharmacies identified using this procedure.

The survey-packs were addressed to 'The Community Pharmacist' and included a cover letter, information sheet, the survey, a tea bag, and a reply-paid envelope. We conducted two follow-up telephone reminders using the numbers in the telephone directory. Pharmacists could return the survey by reply-paid post, fax, or email. We offered an AUD\$30 gift voucher for returning a completed survey. Ethical approval for the survey was obtained from the Curtin University Human Research Ethics Committee (RD-50-09).

Measurements

To develop a valid survey instrument grounded in theory, we constructed the survey using Eagly, Mladinic and Otto's attitude survey template,²¹ which is based on Zanna and Rempel's tripartite model of attitudes.²² The key idea of this model is that people's attitudes are comprised of three distinct types of information: (1) their knowledge and experience, (2) their emotions, and (3) their beliefs.

Eagly and colleagues' survey template has been used and published extensively, including in the palliative care arena.

For instance, Cohen, O'Connor, and Blackmore²³ adapted Eagly and colleagues' template to investigate nurses' attitudes towards providing palliative care in nursing homes. We adapted the survey template to make it appropriate for measuring community pharmacists' attitudes towards providing palliative care. We gathered feedback from a range of people with expertise in pharmacy and palliative care, and pilot tested the questionnaire with several community pharmacists.

The questionnaire comprised five sections. First, community pharmacists were asked to rate their 'attitude about providing services and supports for palliative care patients' using a seven-point scale ranging from -3 ('negative') through to 3 ('positive'). In section two, pharmacists were asked to report their beliefs about providing services and supports for palliative care patients. The pharmacist could report up to six beliefs in his or her own words. The pharmacist then rated how positive or negative each belief was using a seven-point scale ranging from -3 ('negative') through to 3 ('positive'). In section three, community pharmacists could report up to six emotions they felt about providing services and supports for palliative care patients, rating how positive or negative each emotion was in the same way. In section four, the pharmacist was asked to provide some personal information including their gender, location, how long they had been qualified, and their experience in palliative care. Finally, in section five, the survey measured knowledge about palliative care using 20 statements; for each statement the pharmacist was asked to indicate whether it was true or false or whether he or she was unsure of the answer. For example, one statement read, 'Dexamethasone 16 mg/day is a reasonable dose for treating decreased appetite and mood.' Half of the statements were true and half were false.

To develop statements for the knowledge section of the survey, experts in pharmacy and palliative care generated short true and false statements relevant to community pharmacists' knowledge of palliative care, and then rated the importance of each of the 43 statements generated. The final 20 statements were selected using these ratings and the third author's judgment, to ensure the final set of statements covered different areas of knowledge and were not repetitive.

All data was analyzed using SPSS 17.0 (SPSS Inc., Chicago, IL).

Results

Response rate

In total, 250 completed surveys were returned. An additional 34 were returned undelivered by Australia Post because the address was outdated, producing a final response rate of

TABLE 2. THE COMMUNITY PHARMACISTS' PROVISION OF PALLIATIVE CARE SERVICES (N=250)

<i>Provision of palliative care services</i>	N	%
Received training in palliative care	29	11
Currently providing palliative care services	121	48
Personal experience with palliative care	92	36
No palliative care patients seen within the last 12 months	48	19
Over 100 palliative care patients seen within the last 12 months	5	2

26%. Given that pharmacists' response rates are typically very low (Hussainy and colleagues reported a 10.3% response rate for a survey of pharmacists),²⁰ we deemed this rate to be acceptable.

Participants

Of the 250 community pharmacists who returned completed surveys, 114 were female and 135 male, with one unreported. The pharmacists ranged in age from 20 to 72 years, (M=37 years, SD=11.8). The respondents had been qualified as pharmacists for between 0 and 50 years (M=13.8 years, SD=12.4), and working in community pharmacies for between 0 and 54 years (M=14 years, SD=11.3). The community pharmacies where the respon-

dents worked employed between 0 and 12 other pharmacists (M=2, SD=1.9). Table 1 provides the employment locations of the community pharmacists across each of the seven Australian states.

Community pharmacists' provision of palliative care services

As shown on Table 2, only 29 community pharmacists reported having any training in palliative care, yet 121 reported that they were currently providing services and supports for palliative care patients. Ninety-two community pharmacists reported having personal experience in palliative care (for example, caring for a relative). Forty-eight participants reported that they had not seen any palliative care patients in the previous 12 months. Five pharmacists reported seeing 100 or more palliative care patients in the previous 12 months. Excluding these five pharmacists from the analysis, on average, pharmacists reported seeing 6.7 palliative care patients over the previous 12 months (SD=9.7).

Attitudes towards providing services and supports for palliative care patients

Of the 232 responses to this question, 221 (95%) community pharmacists rated their attitudes towards providing services and supports for palliative care patients on the positive side of

TABLE 3. COMMUNITY PHARMACISTS' BELIEFS AND EMOTIONS ABOUT PROVIDING SERVICES AND SUPPORTS FOR PALLIATIVE CARE PATIENTS

<i>Beliefs</i>	<i>Example response</i>
Beneficial for community	I believe...that it is a community need.
Support and benefits for patients and carers	I believe...it improves patient and family understanding and acceptance.
Need for palliative care education and support	I believe...I would need more training to provide services for palliative care.
Emotional impact	I believe...it takes a lot of emotional energy.
Enables patient to stay at home	I believe...the patient should be able to choose home or hospital for their last days.
Communication/palliative care team	I believe...the pharmacist can play a role in the palliative care team.
Pain management	I believe...in optimal pain relief minimizing side effects such as constipation and drowsiness.
Nonpain symptoms and quality of life	I believe...providing medication advice allows patients to maintain control for as long as possible.
Pharmacist's role	I believe...that accurate information about PC drugs (e.g., opiates) should be offered by pharmacists.
Work load/increased costs	I believe...it may not generate enough profit for the time and resources required.
<i>Emotions</i>	<i>Example response</i>
Angry/annoyed	I feel...angry, as nothing can be done.
Empathy	I feel...compassionate for those suffering.
Emotional	I feel...emotional.
Fortunate	I feel...grateful for my health.
Happy/good	I feel...good to be able to help the patient and family.
Necessary/valued	I feel...that I am an integral part of the patient's health care.
Redundant/ineffective	I feel...inadequate to provide the required level of care.
Responsible	I feel...responsible for medication use.
Sad	I feel...sad, as the patient's time is coming to an end.
Satisfied	I feel...satisfaction.
Uncomfortable	I feel...uncomfortable about how my interaction will make the patient feel: patronized, uncomfortable, angry.
Unsure	I feel...a little uncertain.

the scale. The remaining 11 all rated their attitudes as neutral (5%). The average attitude rating was positive ($M=2.3$, $SD=0.82$). In short, we found no evidence that community pharmacists were reluctant to be involved in the provision of palliative care.

Beliefs about providing services and supports for palliative care patients

Community pharmacists listed between zero and six beliefs about providing services and supports for palliative care patients, ($M=4.7$, $SD=1.4$). In total, the pharmacists reported 1159 beliefs, which fit into 10 broad themes (see Table 3 for themes and examples, and Table 4 for percentage of beliefs identified in each category). Despite their positive overall view of providing services and supports for palliative care patients, community pharmacists rated their beliefs on all parts of the scale (positive and negative). Participants rated 21% of their beliefs as negative ($N=246$), 4% of the beliefs as neutral ($N=45$), and 75% of their beliefs as positive ($N=868$).

Emotions about providing services and supports for palliative care patients

Community pharmacists also listed between zero and six emotions they experienced in relation to providing services and supports for palliative care patients ($M=3.9$, $SD=1.6$). In total, the pharmacists reported 955 emotions, which fit into 12 broad themes (see Table 2 for themes and examples, and Table 4 for percentage of emotions identified in each category). Participants rated 38% of the reported emotions as negative ($N=360$), 5% as neutral ($N=43$), and 58% as positive ($N=552$).

TABLE 4. COMMUNITY PHARMACISTS' BELIEFS AND EMOTIONS AROUND PROVIDING SERVICES AND SUPPORTS FOR PALLIATIVE CARE PATIENTS

Beliefs	%
Beneficial for community	11
Support and benefits for patients and carers	27
Need for palliative care education and support	7
Emotional impact	4
Enables patient to stay at home	7
Communication/palliative care team	16
Pain management	9
Nonpain symptoms and quality of life	5
Pharmacist's role	9
Workload/increased costs	2
Other	3
Emotions	
Angry/annoyed	4
Empathy	9
Emotional	3
Fortunate	2
Happy/good	9
Necessary/valued	25
Redundant/ineffective	9
Responsible	3
Sad	17
Satisfied	16
Uncomfortable	13
Unsure	4

Knowledge about palliative care

We calculated each community pharmacist's score on the 20 statements to measure knowledge of palliative care. Scores ranged from 2 to 16 questions correct (10%–80%), with an average of 9.5 correct responses ($SD=2.9$; 47.5%). When not sure of an answer, community pharmacists were asked to report 'unsure,' and overall, pharmacists selected this option for 24% of the statements. Thus, for the remaining 28.5% of statements that pharmacists did not answer correctly, they were apparently sure of their answers, but wrong. Table 5 provides details of community pharmacists' responses to each of the true and false statements. The correct responses are shaded in grey.

A deeper analysis of responses on the knowledge test showed that there were areas of strength and areas that could be improved. More specifically, examining responses to each statement separately highlighted three key findings. First, the results showed that community pharmacists have a good understanding about some aspects of palliative care. For example, as Table 5 illustrates, the majority correctly rejected the suggestion that medication needs take priority over spiritual needs, and recognized that medications may be used for different indications and at different dosages in palliative care. Secondly, the responses highlighted a number of areas where community pharmacists lack knowledge about palliative care. For example, a considerable number reported being unsure about the evidence for combining drugs in syringe drivers and being unsure about whether to withhold opioids until the patient is in severe pain. Finally, the results identified some common misconceptions about palliative care. For instance, the vast majority of the sample erroneously reported that all palliative care patients experience depression, and many reported that the major focus of palliative care is managing pain at the end of life.

Predicting attitudes to providing services and supports for palliative care patients

We analyzed the data to determine if community pharmacists' overall attitudes about providing services and supports for palliative care patients could be predicted by their beliefs, emotions, or knowledge. To that end, we conducted a standard (simultaneous) multiple regression, regressing pharmacists' overall attitude on the three predictors: mean belief rating, mean emotion rating, and knowledge test score (percentage correct). There were 224 completed surveys that could be used in this analysis, giving adequate power to detect medium effects or greater (the remaining 26 surveys were missing data in one or more of the sections required), and the data met all necessary assumptions for the regression.

The regression showed that community pharmacists' overall attitudes were predicted by their beliefs about providing services and supports for palliative care patients and by their knowledge about palliative care (see Table 6). More specifically, the more positive the pharmacists rated their beliefs, the more positive their overall attitude, and similarly, the higher the pharmacists' score on the knowledge test, the more positive their overall attitude.

Although community pharmacists' ratings of their emotions did not predict their overall attitudes towards providing services and supports for palliative care patients, there was a significant correlation between the pharmacists' ratings of

TABLE 5. COMMUNITY PHARMACISTS' RESPONSES TO TRUE AND FALSE STATEMENTS ABOUT PALLIATIVE CARE

True statements	True	Response False	Unsure
Laxatives should be prescribed whenever opioids are to be used	201	41	6
The evidence about the safety and efficacy of combining drugs for subcutaneous infections is very limited	45	46	156
Haloperidol is good for treating nausea and vomiting	124	56	63
Chemotherapy is used as a noncurative treatment in palliative care	88	87	70
Most palliative care patients experience shortness of breath during their illness	101	39	107
The major focus of palliative care is maximizing the patient's quality of life and addressing the needs of both the patient and their carers/family members	241	4	0
Medications are often used for nonstandard indications and at nonstandard dosages in palliative care	203	11	29
Sleep reversal is common in palliative care patients	72	5	165
Many palliative care patients experience oral thrush at some stage of their illness	164	9	72
False statements	True	Response False	Unsure
Dexamethasone 16 mg/day is a reasonable dose for treating decreased appetite and mood	39	73	131
Oral morphine should not be used by people in respiratory distress	131	74	43
Most palliative care patients experiences depression during some stage of their illness	226	4	17
The health care professionals on the palliative care team need to meet face-to-face to discuss patients	145	65	11
The major focus of palliative care is managing pain at the end of life	171	65	11
The maximum dose of morphine is 1 g/daily orally	4	144	95
It is good practice to reserve opioids until the patient's pain is severe	61	169	13
Palliative care patients' spiritual needs are secondary to their medication needs	12	209	20
All palliative care patients experience pain at some stage of their illness	146	60	28
The risk of becoming addicted to morphine is high at doses above 1g /day	83	82	73
Pharmacists should recommend that palliative care patients avoid complementary and alternative medicines	32	178	34

their beliefs and ratings of their emotions ($r=0.36$, $p<0.001$), suggesting that emotions may still be relevant to overall attitude.

Conclusions

Most community pharmacists in this study reported having a positive attitude about providing services and supports for palliative care patients. In addition, the pharmacists rated most—but not all—of their beliefs about palliative care positively, suggesting that although they were aware of negative aspects of palliative care, the positives outweighed the negatives. However, the pharmacists rated a higher proportion of their emotions as negative (compared with their beliefs), supporting the idea that working in palliative care can be

personally confronting. Participants' ratings of their beliefs and emotions were related, with people reporting more negative beliefs also reporting more negative emotions. The cause of this relationship is unclear, but it may be that fostering more positive beliefs about palliative care also improves the emotions associated with it, thus removing a potential barrier to community pharmacists' involvement in providing services and supports for palliative care patients.

The pharmacists' knowledge scores left significant room for improvement, as the average performance equated to correct responses for less than half of the questions. The 20 knowledge statements were selected because they were seen as essential for community pharmacists working with palliative care patients to know; the pharmacists' below-average performance highlights the need for palliative care education and continuous professional development (CPD) targeted towards community pharmacists.

There was some evidence that the community pharmacists were aware of their limited palliative care knowledge. 'Unsure' responses made up nearly a quarter of all responses on the knowledge test, suggesting that participants recognized the gap in their knowledge. Additionally, separate examination of the knowledge statements highlighted areas of strength, areas for improvement, and common misconceptions about palliative care, providing a starting point for developing education programs.

The regression analysis showed that community pharmacists' overall attitudes were predicted by both their beliefs about providing services and supports for palliative

TABLE 6. COEFFICIENTS BY PREDICTOR FOR THE STANDARD MULTIPLE REGRESSION MODEL

Predictor	<i>b</i>	<i>SE b</i>	β	<i>t</i>	<i>p</i>
Belief ^a	.118	.050	.164	2.35	.020
Emotion ^a	.056	.045	.086	1.23	.218
Knowledge ^b	.986	.375	.171	2.63	.009

^aMean rating.

^bProportion correct out of 20.

b, unstandardised regression coefficient; *SE b*, standard error of *b*; β , standardized regression coefficient; *t*, *t* test statistic; *p*, significance of *t* test statistic.

care patients, and by their knowledge about palliative care. More specifically, the more positively community pharmacists rated their beliefs, the more positive their overall attitude was, and similarly, the higher the pharmacists' score on the knowledge test, the better their overall attitude towards palliative care. This attitude structure is not the same for all health professionals. For example, Cohen and colleagues²² found that beliefs and emotions both independently predicted registered nurses' attitudes towards palliative care in nursing homes but knowledge did not. In other words, there was no evidence that providing these nurses with more information (and thus knowledge) about palliative care would affect their attitudes towards it, suggesting that in order to improve nurses' negative attitudes, any education would need to target the nurses' beliefs and feelings about palliative care.

The results of this study support the idea that as community pharmacists build knowledge and understanding of palliative care, they will also have more positive attitudes towards providing services and supports for palliative care patients. As such, palliative care education should focus on building community pharmacists' knowledge as well as fostering positive beliefs about palliative care. We argue that improving community pharmacists' knowledge and understanding of palliative care is likely to improve their overall attitudes towards providing services and supports for palliative care patients. These conclusions are consistent with Joranson and Gilson's research²⁴ on the influence of pharmacists' knowledge of and attitudes to opioid pain medication; they concluded that pharmacists' 'incorrect knowledge and inappropriate attitudes could lead to errors in providing services for palliative care patients.

Limitations

One limitation of this research was the response rate for the survey (26%). Although this rate is typical of other surveys in community pharmacy, it does limit the generalizability of the results. Specifically, it may illustrate that the sample who returned completed surveys had a respondent bias (i.e., only those pharmacists with an interest in palliative care may have completed the survey). Given that no community pharmacist reported having a negative overall attitude, it seems plausible that the sample was biased.

There are a number of other reasons why the response rate may have been low. Firstly, the surveys were sent to community pharmacies rather than individual community pharmacists. It is well established that response rates are higher when surveys are personalized.²⁵ Secondly, not having the community pharmacists' names made the follow-up phone calls difficult, as the researcher often spoke to someone different each time he called. Finally, the surveys were posted at the end of the year, a busy time for community pharmacies, which may have decreased the opportunity for the community pharmacist to complete the survey.

However, even if the results of this study cannot be generalized to pharmacists who do not have an interest in palliative care, the results still provide compelling evidence that community pharmacists who are interested in palliative care are in need of training and support to facilitate their involvement in providing services and supports for palliative care patients.

Summary

These results support the broad initiative of enhancing the role of the community pharmacist in the provision of palliative care. Beliefs and knowledge predicted and therefore underpinned a positive attitude towards palliative care and the provision of services and supports for palliative care patients. In this study, emotions were rated more negatively than beliefs. Even though emotions did not underpin attitudes, it is clear that we need to support community pharmacists to have less fear and anxiety about being involved in palliative care. Any education tool must build in how to communicate appropriately with palliative care patients and families and how to elicit and respond to emotional cues. We also need to incorporate how community pharmacists can 'protect' boundaries and maintain well-being while working in palliative care. Community pharmacists, patients, and their families will all benefit from the provision of this type of education and support.

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Author Disclosure Statement

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