L'optimisation du rôle de l'infirmière praticienne en matière d'amélioration de la gestion de la douleur en soins de longue durée

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Cette étude vise à examiner le rôle de l'infirmière praticienne (IP) dans le cadre d'un modèle interdisciplinaire de la gestion de la douleur, en soins de longue durée (SLD). Dans une enquête ponctuelle, un questionnaire a été soumis à 16 IP pratiquant dans la province canadienne de l'Ontario (89 %) dans le but d'identifier celles qui exécutaient actuellement ou devaient exécuter 33 activités liées à la gestion de la douleur, et de cerner les obstacles qui les empêchaient de mener à bien leur rôle d'intervenantes quant à la gestion de la douleur. La majorité des IP (81,3 %) ont signalé qu'elles utilisaient des outils d'évaluation de la douleur. Par contre, moins de la moitié bénéficiaient de lignes directrices en matière de pratiques cliniques portant sur la gestion de la douleur. Les IP (a) effectuaient moins d'activités liées à la prescription et à la modification du dosage de médicaments contre la douleur, (b) occupaient moins de fonctions de leadership en gestion de la douleur, et (c) étaient moins nombreuses à mener des initiatives de recherche traitant de la douleur. Toutefois, la plupart ont exprimé le désir de participer davantage à ces activités. Les contraintes de temps, les restrictions en matière d'ordonnance, le manque de connaissances, la difficulté à évaluer la douleur, les réserves des médecins, du personnel, des bénéficiaires et des familles quant à l'utilisation des opioïdes, et le peu de collaboration des médecins figurent parmi les obstacles qui entravent la participation des IP à la gestion de la douleur. Les résultats de l'étude indiquent que les compétences des IP ne sont pas utilisées pleinement en ce qui a trait à la gestion de la douleur chez les bénéficiaires âgés recevant des SLD.

Mots clés: gestion de la douleur, infirmière praticienne, soins de longue durée

Optimizing the Role of the Nurse Practitioner to Improve Pain Management in Long-Term Care

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The purpose of this study was to examine the role of the nurse practitioner (NP) within an interdisciplinary model of pain management in long-term care (LTC). In a cross-sectional survey, 16 NPs in the Canadian province of Ontario (89%) indicated whether they currently performed and whether they should be performing 33 activities related to pain management and identified barriers to the fulfilment of their pain-management role. Most NPs (81.3%) reported use of pain-assessment tools, but less than half reported use of pain-management clinical practice guidelines. NPs were less involved in activities related to (a) prescribing and adjusting pain medications, (b) providing leadership in pain management, and (c) engaging in pain-related research initiatives. However, most felt that they should be more involved in these activities. Barriers to NP management of pain included time constraints; prescribing restrictions; lack of knowledge; difficulties with assessing pain; MD, staff, resident, and family reservations about use of opioids; and poor collaboration with physicians. The results indicate that NPs are not being used to their full potential in managing pain among elderly LTC residents.

Keywords: Pain management, nurse practitioners, long-term care, older adults

Background

Pain management is a significant problem in older adults. In long-term care (LTC), the majority of older adults with or without cognitive impairment experience pain (Desbiens, Mueller-Rizner, Connors, Hamel, & Wenger, 1997; Fox, Raina, & Jadad, 1999; Kaasalainen & Crook, 2003; Moulin, Clark, Speechley, & Morley-Forster, 2002; Proctor & Hirdes, 2001; Simons & Malabar, 1995). Pain in the elderly has been associated with various chronic health problems including degenerative joint disease, osteoarthritis, skin ulcers, back pain, cancer, angina, neuralgia, diabetes, chronic sinusitis, and fractures and other injuries sustained through falls (Feldt, 2000; Ferrell, 1996; Marzinski, 1991).

Despite high rates of pain in older adults, pain is being undertreated, especially in those with cognitive impairment (Horgas & Tsai, 1998; Kaasalainen et al., 1998; Mezinskis, Keller, & Luggen, 2004; Sengstaken

& King, 1993). In a correlational study, Horgas and Tsai examined the use of analgesics among 339 residents of four nursing homes. The residents with cognitive impairment were prescribed and administered significantly less analgesic medication than those without cognitive impairment. Based on a chart review of 307 residents with cognitive impairment in 14 LTC facilities, Mezinskis et al. found that fewer medications were ordered for residents with greater cognitive impairment. In a recent qualitative study examining pain management decision-making in LTC, physicians and nurses described a reluctance to use opioids with residents who had cognitive impairment because they were uncertain about the accuracy of their pain assessments, specifically related to (a) the inadequacy of currently used tools in practice, and (b) inability to discriminate between pain and other problems such as delirium and dementia (Kaasalainen et al., in press). Clearly, LTC residents with cognitive impairment are particularly vulnerable to unrelieved pain and suffering.

In most LTC settings, physician coverage is limited to a few hours per week, resulting in restricted ability to individualize and monitor pain treatments. A potential solution is to utilize the nurse practitioner (NP) more effectively in the management and evaluation of pain treatments when the physician is unavailable onsite to attend to residents' needs.

In 2000 the Ministry of Health and Long-Term Care (MoHLTC) in the Canadian province of Ontario funded 20 full-time primary health care (PHC) NP positions in LTC, in response to the complex needs of this population and the inability of the health-care system to support those needs. These NP positions in LTC, licensed in the extended class, were funded 2 years after the NP role had been legislated in Ontario and require a 12-month post-baccalaureate certificate from a university. Primary health care NPs are uniquely qualified to provide individualized and holistic care for pain management considering their scope of practice (i.e., authority to prescribe certain medications), their educational preparation, and the health model under which they practise (Cumbie, Conley, & Burman, 2004; Schober & Affara, 2006).

To date, minimal research has been conducted on the effectiveness of this new NP role in LTC settings in Ontario or in the other Canadian provinces that employ NPs in LTC. In the United States, however, there is a developing body of knowledge that supports the role of NPs in LTC (Aigner, Drew, & Phipps, 2004; Burl, Bonner, Rao, & Khan, 1998; Intrator, Castle, & Mor, 1999; Kane, Keckhafer, Flood, Bershadsky, & Siadaty, 2003; Rosenfeld, Kobayashi, Barber, & Mezey, 2004). NPs have been shown to reduce hospital admissions, visits to the emergency department, and costs, while increasing access to PHC (Burl et al.; Intrator et al.; Kane et al.). In a survey of physicians, all of whom were members of the American Medical Directors Association, Rosenfeld et al.

found a high level of satisfaction with the NP role in LTC on the part of physicians (90%), residents (87%), and families (85%). However, the low response rate (19%) leads one to question the validity of these findings. In addition, it is unclear how the satisfaction reports were obtained, but it appears that the physicians reported on behalf of residents and families. There are no reported findings related to NP management of pain in these studies.

The role of NPs in pain management in Canadian acute-care settings has recently been studied (Kohr & Sawhney, 2005). Musclow, Sawhney, and Watt-Watson (2002) found that interdisciplinary collaboration, including NP-improved pain management in acute-care settings, provides opportunities for consulting on difficult pain-management issues, disseminating research findings, providing ongoing staff education, and advocating for greater accountability within nursing for pain management. Research is needed to determine whether improving interdisciplinary collaboration within a model of care that includes a well-defined role for the NP would fill gaps in care, ultimately improving the quality and efficiency of pain management in LTC.

However, the NP role in both acute-care and LTC settings is not well delineated within an interdisciplinary model of care, likely due to the recent emergence of the NP role in Ontario. Bryant-Lukosius and DiCenso (2004) developed the Participatory, Evidence-Based, Patient-Focused Process for Advanced Practice Nursing (APN) Role Development, Implementation, and Evaluation (PEPPA) framework, which can be used to guide NP integration. According to this framework, it is important to clearly define the role of the NP and address any barriers to its implementation before conducting an evaluation of the effectiveness of the NP role. Applied specifically to pain management in LTC, the PEPPA framework suggests that the high prevalence of poorly managed pain in older adults and the recent introduction of the NP role in LTC warrant the delineation of a pain-management role for NPs, which, once properly implemented, should be evaluated. This framework provided the impetus for this study — an examination of role delineation of the NP in LTC around pain management.

In summary, pain management is a serious problem in LTC. The emergence of the NP role in Canadian LTC settings may provide a mechanism for improving pain-management practices. However, prior to examining the effectiveness of the NP role in pain management in LTC, we conducted a role delineation study, the purpose of which was to examine the role of the NP in pain management in LTC. We designed the study to (1) examine the practice patterns of NPs in LTC with a particular focus on pain management, and (2) identify the barriers to and facilitators of NP role implementation in pain management.

Methods

This study used a cross-sectional survey design to gather information about the current role of NPs in pain management in LTC homes across Ontario. The survey involved both qualitative and quantitative approaches to data collection and analysis.

Instrumentation

The survey comprised four sections: (1) demographic information, (2) practice patterns, (3) activities related to pain management, and (4) barriers to and facilitators of pain management in LTC. Demographic information included age, education, years of practice as both a registered nurse and a licensed NP, and type of position held (i.e., full-time, part-time, casual, contract).

The second section, that on practice patterns (e.g., allocation of time spent on clinical and non-clinical duties and on specific types of services such as wellness care/health promotion, care of minor acute illness, monitoring of chronic illness, care of major acute illness, and palliative care; use of pain-assessment tools or clinical practice guidelines [CPGs] for pain management), gathered information about the context of NP practice within which pain management occurred. Most of the questions for this section were taken from a previous survey administered to NPs across Ontario (DiCenso, Paech, & IBM Corporation, 2003) and based on a comprehensive literature review and existing survey instruments; that survey had been assessed for face and content validity by NPs and representatives of nursing and physician organizations and had been pretested on a small number of NPs, with revisions made based on their feedback.

The third section included a list of pain-management activities based on (a) the competencies in the Canadian Nurses Association (2002) framework of advanced practice nursing, namely clinical practice, consultation/communication, education, leadership/change agent, advocacy, and research; (b) a review of the literature related to pain management and older adults; and (c) CPGs for pain management developed by the Registered Nurses Association of Ontario (2002), the American Medical Directors Association (2003), and the American Geriatrics Society (1998). The NPs were asked to indicate whether they (a) performed each of these pain management activities, and (b) should be doing so.

Finally, in the fourth section NPs were asked to identify the barriers and facilitators they experienced while managing pain among LTC residents.

The face and content validity of the four-part survey were assessed by a panel of experts in both pain management and advanced practice nursing. The survey was pretested with two NPs with expertise in pain management and elder care and was modified based on their feedback and responses.

Procedure

The study was approved by a university research ethics board in south-central Ontario. The survey was mailed to all MoHLTC-funded NPs working in LTC facilities in Ontario (n=18) along with a coupon for a national chain of coffee shops to enhance response rates and a self-addressed, stamped envelope. NPs were asked to complete the survey and return it the self-addressed, stamped envelope. The survey was designed to be completed in 15 to 20 minutes. A modified Dillman's approach was used to increase response rate: a second mailing of the survey was made 2 weeks after the first, followed by a telephone call or e-mail message 1 week later (Dillman, 1978).

Data Analysis

The quantitative data from the survey were summarized using descriptive statistics. Frequency distributions, means, and standard deviations were calculated. Content analysis was used to analyze the survey data obtained from the open-ended questions.

Results

Sixteen NPs returned the completed survey, for a response rate of 89%. The respondents had an average age of 45.3 years (SD = 8.6). They had been practising as NPs for an average of 3.8 years (SD = 2.3) and as RNs for an average of 20.7 years (SD = 9). The majority of the NPs had a bachelor's (56.3%) or master's (26.3%) degree in nursing and worked full time (87.5%).

The respondents reported spending on average 76% of their time on clinical duties (range = 30-95%), 14.1% on non-clinical activities (range = 5-50%), 8% on clerical duties (range = 0-20%), and 1.5% travelling (range = 0-10%). In addition, NPs reported spending on average 31% (range = 2.5-60%) of their time treating minor acute illnesses and 26.3% (range = 5-60%) monitoring chronic illnesses (see Table 1).

The majority of NPs (81.3%) reported that they used pain-assessment tools in their practice. However, only 50% of the NPs (n = 8) indicated using CPGs to direct their pain-management activities for LTC residents. It is not known if the remaining NPs (n = 8) used CPGs, as they did not respond to this survey question.

At least 93.75% of the NPs reported that they engaged in activities related to the assessment and diagnosis of pain in their clinical practice

	Mean % of Time (Range)
Duties	
Clinical	76.0 (30–95)
Non-clinical	14.1 (5–50)
Clerical	8.0 (0-20)
Travel	1.5 (0-10)
Services	
Wellness care/health promotion	14.5 (0-50)
Care of minor acute illness	30.8 (2.5–60)
Monitoring of chronic illness	26.3 (5–60)
Care of major acute illness	9.2 (0-30)
Palliative care	10.5 (2–30)
Other ^b	14.0 (0-70)

(Table 2). In addition, 93.75% indicated that they prescribed non-opioid analgesics, such as acetaminophen and aspirin, and non-pharmacological pain interventions. However, only 62.5% of NPs reported prescribing NSAIDs and 12.5% of NPs reported prescribing opioid analgesics from a defined list, whereas 87.5% and 93.75%, respectively, reported that they should be able to prescribe these medications.

Given the large number of missing responses to the question "Should you be performing this activity?," we asked two of the NPs who had not responded to it to explain why. Both said they did not respond because they thought the question was intended to be answered only by those who responded negatively to the previous question ("Do you currently perform this activity?") for each item in the survey. Therefore, for NPs who indicated that they performed these activities and did not respond to the question about whether they *should* perform them, we interpreted the missing response as "yes."

With regard to consultation and communication, most of the NPs reported that they collaborated with physicians, other nurses, families, and residents about pain management. Only 75% of the NPs, however, reported that they collaborated with pharmacists, whereas 93.75% reported they should be collaborating with pharmacists in LTC around pain management. The respondents indicated that they were less engaged than they should be in leadership activities related to pain management, such as serving on committees (56.25%), assisting in the development of

^bAdmissions, histories, physicals.

Table 2 NP Involvement in Pain Management Activities (n = 16)		
Activity	"Do you currently perform this activity?" Yes a %6 (n)	"Should you be performing this activity?" Yes ^b
Clinical Practice		
1. Assess pain	$93.75 (15)^1$	$93.75 (15)^3$
If yes, do you base this on:		
(a) physical examination	100 (16)	100 (16) ⁴
(b) health history	93.75 (15)	100 (16) ⁴
(c) assessment tools	87.5 (14)	100 (16) ⁴
2. Order diagnostic tests to determine pain diagnosis (e.g., x-ray, blood & urine)	87.5 (14) ¹	93.75 (15) ⁴
3. Diagnose the cause of residents' pain	93.75 (15)	100 (16) ⁴
4. Prescribe NSAIDs (e.g., ibuprofen, naproxen)	62.5 (10)	87.5 (14) ⁴
5. Prescribe analgesics (e.g., acetaminophen, aspirin)	93.75 (15)	100 (16) ⁴
6. Prescribe a defined list of opioid analgesics	$12.5 (2)^1$	$93.75 (15)^3$
7. Prescribe nonpharmacological pain interventions	93.75 (15)	$93.75 (15)^5$
8. Adjust a defined list of non-opioid analgesics	$62.5 (10)^{1}$	93.75 (15) ⁴
9. Adjust a defined list of opioid analgesics	25 (4) ¹	$100 (16)^3$
		Continued on next page

Clinical Practice (cont'd)	Currently perform	Should perform
10. Prescribe a defined list of adjuvant therapies to manage pain and its side effects	62.5 (10)	$93.75 (15)^3$
11. Assess side effects of pain treatments	93.75 (15)	$100 (16)^3$
12. Assess effectiveness of pain medications	93.75 (15)	$100 (16)^3$
13. Assess effectiveness of nonpharmacological interventions	93.75 (15)	$100 (16)^3$
14. Document findings about pain management	93.75 (15)1	$93.75 (15)^3$
Consultation and Communication		
15. Collaborate with pharmacists about pain management	75 (12)	$93.75 (15)^3$
16. Collaborate with physicians about pain management	93.75 (15)	$100 (16)^3$
17. Collaborate with RNs about pain management	100 (16)	$100 (16)^3$
18. Collaborate with RPNs about pain management	100 (16)	$100 (16)^3$
19. Collaborate with HCAs about pain management	93.75 (15)	$93.75 (15)^3$
20. Collaborate with other health care professional (HCP) about pain management	93.75 (15)	$93.75 (15)^3$
21. Collaborate with family about residents' pain	100 (16)	$100 (16)^3$
22. Collaborate with residents about their pain	100 (16)	$100 (16)^3$
Education		
23. Educate staff nurses about pain management	100 (16)	$100 (16)^2$
24. Counsel residents and/or families about pain	100 (16)	$100 (16)^3$

Leadership/Change Agent 25. Participate in committee work related to pain management 26. Assist in the development of policies and procedures about pain management 27. Liaise with regulating bodies about pain management activities 28. Implement or evaluate a pain management program	56.25 (9) 43.75 (7) 25 (4) 31.25 (5)	93.75 (15) ³ 81.25 (13) ³ 75 (12) ² 87.5 (14) ³
Advocate for patients/families related to pain management 30. Advocate for staff related to pain management	87.5 (14) ² 81.25 (13) ²	87.5 (14) ⁴ 93.75 (15) ³
 Research 31. Identify researchable questions related to pain management 32. Participate in research studies related to pain management 33. Disseminate research findings related to pain management 	$31.25 (5)^2$ $43.75 (7)^2$ $43.75 (7)^2$	81.25 (13) ³ 93.75 (15) ¹ 93.75 (15) ²
^a Missing responses for each item are interpreted as the NP does not perform those activities. ^b Missing responses for each item are interpreted as the NP should be performing those activities <i>only if</i> the NP has indicated "yes": he/she does perform these activities. ¹ One missing response. ² Two missing responses. ⁴ Flour missing responses. ⁴ Four missing responses.	IP has indicated "yes":	

policies and procedures (43.75%), liaising with regulating bodies (25%), and implementing or evaluating a pain-management program (31.25%). Regarding advocacy, 87.5% of the NPs reported advocating for patients and families and 81.25% advocating for staff related to pain management. Less than half of the NPs were involved in research activities related to pain management, such as identifying researchable questions (31.25%), participating in studies (43.75%), and disseminating research findings (43.75%). Large proportions of the sample felt that they should be more involved in these activities, particularly with regard to (a) leadership activities such as committee work (93.75%) and implementation of a pain-management program (87.5%), and (b) research activities (93.75%).

Using content analysis, themes were developed from responses to the open-ended question "In your opinion, what are the major barriers and facilitators to effective pain management in LTC settings?" The themes that emerged as barriers were (a) difficulty assessing pain due to lack of tools, especially for residents with dementia; (b) poor collaboration with physicians; (c) lack of time/heavy workload; (d) limited scope for prescribing opioids; (e) lack of staff education; and (f) reservations about the use of opioids (i.e., not wanting to use narcotic medication for non-palliative pain). One NP commented:

Doctors refuse to have a list of pain medications that NPs can prescribe [independently]. I have to have them [doctors] cosign it. This hinders me from ordering because I am afraid that the doctor may choose not to cosign it when he comes in.

NPs also reported a number of facilitators of pain-management practices. These included: (a) the use of CPGs and standardized tools for pain management; (b) interdisciplinary collaboration among nurses, physicians, and pharmacists; (c) staff education and support; and (d) strong collaboration with physicians embedded in a trusting relationship.

Discussion

The NPs appeared to spend most of their time (76%) engaged in clinical activities in LTC. This finding is congruent with those of other research. DiCenso et al. (2003) found that PHC NPs spent on average 73% of their time on clinical activities. The implementation of the NP role was inconsistent across the LTC homes. The range of the percentages of time spent on clinical activities was quite wide, with some NPs spending as little as 30% and others as much as 95% of their time engaged in clinical activities. As well, the extent of their time spent on non-clinical activities varied from 5 to 50%. These findings provide some context regarding the extent to which NPs are engaged in clinical activities as opposed to, for

instance, travelling between LTC settings or engaged in non-clinical activities. This information is important if consideration is to be given to increasing the NP's role in pain management.

The wide variation in amount of time spent on clinical activities may indicate that some NPs are not utilizing their skill set fully and are spending time on activities that may be more appropriately performed by other members of the health-care team or by administrative personnel. While we did not measure NP job satisfaction in this study, DiCenso et al. (2003) found that those NPs who spent more time on clinical duties were more likely to be satisfied with their scope of practice than those who spent less time on these duties. Similarly, Sidani et al. (2000) found that acute-care NPs viewed their involvement in clinical care as a positive, enjoyable, and rewarding aspect of the NP role. It seems reasonable to speculate that the relationship between time spent on clinical activities and job satisfaction will be similar for LTC NPs, but future work is needed to confirm this assumption. In light of the PEPPA recommendation that the role be evaluated once successful implementation is achieved, further work is also needed to examine the reason for the inconsistency in the NP role across LTC homes, so that the effectiveness of NPs in LTC, particularly around pain management, can be evaluated fairly and systematically.

The scope of practice for NPs in terms of prescribing and adjusting certain pain medications, namely NSAIDs and opioids, appears limited. Yet the majority of NPs reported that they should be able to prescribe these types of pain medication in their practice. Even though there are NSAIDs on the approved list for NP prescribing, there may be some concern regarding the side effects of these medications, especially for the older population (e.g., gastrointestinal bleeding, stroke). Further research is needed to examine why NPs are not prescribing NSAIDs to the extent permissible.

Kohr and Sawhney (2005) found that NPs dealt with prescribing restrictions by offering suggestions or advice to physicians and pharmacists, implementing medical directives, and discussing options with patients and families. However, these prescribing restrictions can cause delays in the effective treatment of residents' pain, fragmentation of care, and inefficient use of health-care funding (DiCenso et al., 2003). Efforts should be directed at extending the scope of practice for NPs around the prescribing of pain medications or at developing alternative strategies so that NPs can function more autonomously and pain can be alleviated in a more timely and efficient fashion for LTC residents.

Respondents commented on the usefulness of pharmacists as a resource in LTC. While some NPs reported currently collaborating with pharmacists, almost all NPs reported that they should be doing so. By

developing stronger collaboration with LTC pharmacists, NPs may be better positioned to treat pain.

Another apparently weak aspect of the NP role is the extent to which NPs are engaged in leadership and research activities related to pain management. Although the majority of NPs indicated that they should be engaged in leadership and research activities, slightly less than half reported that they were. Given the demands of the NP position in LTC. this finding is not surprising. Sidani et al. (2000) found that, although NPs believed they should be involved in all aspects of their role, they stated that patient care took precedence over other activities, including leadership and research. In addition, the relative novelty of the NP role in LTC may limit the scope of its implementation. However, DiCenso et al. (2003) report that NPs expressed an interest in participating in evidence-based practice and research. Perhaps the limited involvement in research and leadership is reflective of the NPs' level of education: most of the participants in the present study were baccalaureate-prepared. As the level of education required for NPs increases (i.e., master's), it will be interesting to examine whether their involvement in leadership and research also increases. This aspect of the NP role in LTC around pain management needs to be further developed.

The NPs reported a number of barriers to and facilitators of their pain-management practices in LTC. Similarly, Kohr and Sawhney (2005) found that advanced practice nurses, including NPs, reported barriers to their pain-management practices. These included lack of prescriptive authority; lack of knowledge across all health professionals and patients; lack of clear guidelines; practitioner resistance; inaccurate assessment of pain; and concerns about addiction, substance abuse, and side effects.

The challenges associated with assessing pain in residents with dementia are not unique to the practice of advanced practice nurses; they have been reported by other health practitioners as well (Kaasalainen et al., in press; Martin, Williams, Hadjistavropoulos, Hadjistavropoulos, & MacLean, 2005; Marzinski, 1991). A number of pain-assessment tools for use with residents with dementia have been developed over the past decade, although many of them require further psychometric testing before they can be fully recommended for practice. However, in a recent systematic review, the Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC; Fuchs-Lacelle et al., 2003) was recommended as an appropriate tool for assessing pain in older adults with severe dementia (Zwakhalen, Hamers, Abu-Saad, & Berger, 2006).

Clinical practice guidelines can also be useful in pain management. However, only 50% of the NPs in the present study reported using such guidelines in their practice. This finding is concerning, as CPGs for pain management have been developed by a variety of professional organiz-

ations, including the Registered Nurses Association of Ontario, the American Geriatrics Society, and the American Medical Directors Association. Perhaps this finding is reflective of the challenges inherent in implementing CPGs. For example, Resnick, Quinn, and Baxter (2004) found that only 45% of participating LTC facilities implemented CPGs. As a result, they recommend implementing one CPG at a time and "tooling staff" — providing staff members with a tool to guide them with CPG implementation. Despite these challenges, the NPs in the present study acknowledged CPGs as a facilitator in their pain-management practices, a finding that is also reported elsewhere (Kohr & Sawhney, 2005). Future work is needed to examine innovative ways of implementing CPGs within an interdisciplinary model of care that includes NPs.

Some NPs indicated that the current attitudes of nurses and physicians around opioid use for LTC residents formed a barrier to the effective treatment of pain. Other researchers have reported similar attitudes among health professionals, highlighting reasons for the underutilization of opioids in older adults, such as poor quality of pain assessments and concern about polypharmacy, opiophobia, addiction, and other adverse effects (Ardery, Herr, Hannon, & Titler, 2003; Auret & Schug, 2005; Kaasalainen et al., in press; McCaffery, Ferrell, & Pasero, 2000). Weissman and Matson (1999) observe that there is a widespread fear of treating pain without knowing its exact cause, along with concern about overmedication and drug toxicity, especially in seniors with cognitive impairment. In a recent qualitative study of pain-management decision-making in LTC, physicians described the need to tailor pain treatment so that side effects can be balanced with the amount of pain relief desired (Kaasalainen et al., in press). These findings highlight the need for education of health-care providers so that pervasive misconceptions about pain and aging can be overcome.

A major facilitator of pain management identified by the NPs was effective collaboration within the interdisciplinary team, particularly with regard to physicians. A collaborative relationship is critical to effective pain management and is especially important in LTC because of the lack of onsite coverage by physicians. Nurses and physicians alike have commented on the need for a trusting relationship. Physicians have described the significant influence of a trusting relationship with the nursing staff on their prescribing patterns around pain management in LTC (Kaasalainen et al., in press). Physicians are concerned about prescribing appropriate pain medications when they are working with a nurse who lacks clinical skills and experience, because they depend on the nursing staff to assess resident pain and evaluate the side effects of pain medications in an accurate and therapeutic manner. Clearly, improvements are

needed in collaborative relationships between nurses and physicians, within new models of care delivery to facilitate effective pain-management practices in LTC. The NP with advanced clinical skills may present a viable opportunity to make such improvements. The quality of care for LTC residents, particularly around pain management, might thus be improved.

The high response rate is a strength of this study, with 16 of 18 NPs returning completed surveys (89%). However, the small number of NPs currently employed in LTC homes in Ontario limits the generalizability of the findings. In addition, the settings in which the NPs were employed may not be typical of LTC facilities. Since these LTC homes were the first to employ NPs, they could represent the "best-case scenario" in terms of their receptivity to the role. On the other hand, they served as the pilot sites for NP role implementation and may need to further refine the role within the interdisciplinary team. A further limitation of the study is the absence of responses for some of the survey items (e.g., demographic information, use of CPGs), which may have skewed the results or limited the interpretation of the findings.

In summary, the findings from this study help to delineate the role of the NP related to pain management and provide insight into the current implementation and practice patterns of LTC NPs around pain management. The survey identified a number of factors that limit the NPs' pain management practices; these barriers need to be addressed before the NP role in pain management can be evaluated. However, as the number of NPs working in LTC homes increases, and as the emphasis on multidisciplinary collaboration increases, it is anticipated that the NP role in pain management will be better utilized, ultimately improving the way in which pain is managed in long-term care.

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