Registered Nurses' Response to Pain

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ABSTRACT

Pain is the most common medical issue that older people face in a long-term care facility. Nurses have a critical role in responding to pain. This research looked at nurses' responses to pain in long-term care facilities. The site for this research was a chosen long-term care facility in Ontario, Canada, a 160-bed nursing home for the elderly that provides various nursing and medical care services. Semi-structured focus group interviews lasting about an hour were done. This study's population consisted of 45 nurses. The researcher chose a sample of 25 nurses using a purposive sampling strategy. The data was reviewed using qualitative data analysis to detect recurring concerns. This research revealed the necessity of identifying nurses' responses to pain to effectively manage pain in long-term care homes. This study demonstrated the importance of recognizing nurses' responses to pain practices in long-term care homes. Therefore, improved nurses' response to pain practices are required to manage pain in a long-term care home effectively. The overall benefits of nurses' responses to pain practices in long-term care homes expand nurses' clinical knowledge in caring for nursing home residents. Registered nurses' response to pain needs to be addressed in long-term care homes to be able to manage residents' pain effectively. Presently, most residents entering long-term care homes are 65 years and over. Hence, nurses in all areas of care, not just specifically those working in aged care facilities, need a sound knowledge of the pain management of the elderly to facilitate compassionate and effective nursing care. Long-term care homes must address registered nurses' responses to pain to effectively manage residents' pain. Currently, most residents in long-term care homes are 65 years or older. As a result, nurses in all areas of care, not just those working in aged care facilities, must be well-versed in pain management for the elderly to provide compassionate and effective care.

Keywords: long-term care home; nurses; pain practice; pain; response

INTRODUCTION

Pain is a sensation caused by an injury or damage to any part of the human body. It is caused by four processes: transduction, transmission, perception, and modulation (Urden, Stacy, & Lough, 2013). Pain management minimizes or reduces the afflicted person's pain experience. Effective pain management includes both pharmaceutical and non-pharmacologic nursing methods. Although multidisciplinary efforts are required, nurses play a significant and complex role in pain treatment in long-term care homes and hospitals (Registered Nurses Association of Ontario (RNAO), 2013). Nurses and other healthcare professionals must collaborate to manage pain (RNAO, 2013). Nursing interventions include continuous pain assessment, standardized pain assessment, and the proper use of pharmacological and non-pharmacological pain medications.

The attitude and perception of nurses towards technology in nursing care is one of the factors that influence their caring for residents' pain in long-term care homes (Rohmawati, Ardiana & Rosyidi Muhammad Nur, 2021). However, there has been little research into nurses' perceptions of caring in the context of pain management in long-term care facilities. According to the background description, the researcher is interested in investigating how registered nurses respond to pain in long-term care homes. Other studies, which did not focus specifically on elderly patients, found a significant knowledge deficit in nurses' responses to pain. For example, a survey of 318 Canadian nurses found that they lacked knowledge and understanding of the usage, properties, and effects of opioid medication for pain relief, as well as the differences between acute and chronic pain (Sloman, Ahem, Wright & Brown, 2001). Furthermore, a survey of faculty from 14 baccalaureate schools of nursing in the United States found that nursing faculty were deficient in knowledge of pain

management and that pain-related curriculum content was less than optimal (Sloman, Ahem, Wright & Brown, 2001). The researchers concluded that there is an urgent need for changes in nursing education to improve nurses' responses to pain management.

Background of the Study

The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional response to tissue damage (Fleckenstein, 2013). As a result, creating efficient pain management pathways is critical to improving pain management and providing proper nursing care. This can be accomplished by determining the nurses' perceptions of the older person's pain expression and pain treatment components in a long-term care facility. There is overwhelming evidence that the Canadian population is ageing at an unsustainable rate in comparison to current social and healthcare services (Busby & Robson, 2013). According to Statistics Canada (2013), the fastest-growing age group is senior citizens (65 and above). In 2011, five million Canadians were 65 or older (Statistics Canada, 2013). Several medical actions can cause pain, particularly the surgical procedure, which includes impairment, functional limitation, and disability. Impairment includes acute pain at the site of surgery, fear, and limitation of the scope of motion; functional limitation includes the inability to stand, walk, and ambulate; and disability includes activities that are disrupted due to limited range of motion caused by pain and medical procedures (Sri Wahyuningsih, Hayati, & Adi Safitri, 2021).

Nurses are the primary healthcare providers in Ontario's long-term care home facilities (Almost, et al., 2013). Adequate pain management knowledge and comprehension, as well as clinical decision-making based on research data, are thus required to improve nursing practice and promote good health outcomes in Ontario's long-term care home settings (Almost, et al., 2013). Furthermore, the complex health needs of older people in long-term care homes necessitate nurses with specific pain management competence, as well as reliable assessment and clinical decision-making skills, to care for older people who may require healthcare but are unsure how to meet their health needs (Almost, et al., 2013).

Many seniors in long-term care facilities have a variety of diseases, including drug abuse, physical problems, and mental health issues. These people are typically from areas with insufficient health promotion and illness prevention practices due to a lack of knowledge and resources (Baybutt & Chemlal, 2016). Furthermore, a diverse group of people, including a multi-professional group, are involved in pain management in long-term care facilities, either directly or indirectly. In comparison to other multidisciplinary team members, nurses take the lead in pain treatment in long-term care homes. This is because nurses are in close proximity to the residents. They can alleviate pain and increase comfort by evaluating, developing pain-relieving care methods, recording, and monitoring (Birchenall & Adams, 2014).

Purpose Of the Study

This research aimed to look at nurses' responses to pain in long-term care facilities.

METHOD

In this study, a qualitative research technique was applied. The research methodology outlines the study's design, sampling, and sample characteristics. Additionally, the tools, data-collecting procedures, and analytic methods utilized to meet the research goals of this study are presented. The research used a qualitative approach, including non-experimental, exploratory, and descriptive methodologies. The research methodology is a scientific strategy for addressing a problem that comprises a method for designing the study and acquiring and evaluating data (Polit, Beck, & Polit, 2016). According to Brink, Van der Walt and Van Rensburg (2014), the research methodology educates the reader on how the study was performed; in other words, what the researcher did to discover answers to the research issue or answer the research question. The qualitative research approach was suited for this study since it sought to comprehend nurses' responses to pain for older people in long-term care homes.

Research Design

A research design is a collection of plans or recommendations for carrying out research or the basics of carrying out a study (Babbie & Mouton, 2012). A non-experimental, qualitative, exploratory, and descriptive design was used in this investigation. The experimental design is a method of comprehending and being aware of a situation, community, person, or phenomenon under study (Silverman, 2015). To convey a picture of a particular circumstance, social location, or connection, the descriptive design focused on 'how' and 'why' inquiries (Silverman, 2015). The study used a qualitative, exploratory, descriptive research approach.

Research Setting

The selected long-term care facility has 160 beds and offers 24-hour nursing and personal care and access to the family doctor and other health specialists. Since its inception in 2004, the chosen long-term care facility has given nursing services to the elderly. In addition, it provides a versatile and pleasant living setting.

Sampling and Sample

Sampling refers to the selection of certain participants in studies from the overall population and the process used to generate a sample (Cottrell, 2014). Because of the qualitative character of this study and the necessity to acquire detailed information related to the research questions and goals, the researcher picked study participants using a non-probability sampling method. The sampling technique utilized was non-probability sampling, defined as any sort of sampling in which the items or participants chosen are not decided by the statistical concept of randomness (Polit, Beck, & Polit, 2016). A vital element of the non-probability sampling approach is that samples are carefully picked depending on the researcher's subjective judgement. Therefore, participants for this research were chosen using non-random approaches using purposeful sampling.

Data Collection

According to Saldana (2014), data are gathered to understand the participants' experiences better and document the interpretations that participants have created of their experiences. The researcher utilized a semi-structured data collecting technique, such as focus groups, to lead the data collection method, implying that only broad recommendations were used to steer the data collection method. This strategy is justified because it allows for more in-depth, substantial, and deliberate replies. Experiences are no longer primarily dependent on predetermined responses, and they are appropriate for descriptive investigations due to the abundance of different information they present (Saldana, 2014). The data was acquired with the assistance of a scriber who made notes on all replies so that the researcher could conduct the focus group discussion. Participants provide meaningful self-disclosure in an ideal focus group interview and effectively analyze their experiences (Tracy, 2013). According to Babbie and Mouton (2012), group interviews establish meaning when participants participate in conversations and a substantial amount of engagement on a topic in a short period. They also argue that the focus group interviews are high quality since participants can voice their opinions. The conversations highlight parallels and variations in the members' viewpoints on a particular subject.

Data Analysis

According to Creswell (2018), data analysis begins with data management, which includes reading and memoing, summarising, categorizing, analyzing, and producing a narrative that accurately depicts the case study's story. Furthermore, Creswell (2018) claims that participants' interpretations are critical in qualitative analysis because they provide the best explanations for their actions, behaviours, and ideas. Theme analysis was chosen as the method for this study because it is both simple and theoretically flexible (Alhojailan, 2022). Furthermore, this step ensures that the themes are accurately associated with the data (Patton, 2019). Data analysis was conducted using verbatim transcriptions of interviews recorded during data collection. Data collection and analysis were conducted concurrently. The researcher gathered information by collecting data in specific segments. Regarding the proposed study. The researcher used Creswell's (2018) approach to analyze focus group interview conversations, which consists of four steps: audio transcription, data coding, data interpretation, and data reporting. First, each interview transcript was read and reread to get a general idea. Second, the transcript was thoroughly reviewed to identify key information. In addition, the researcher cross-checked the transcripts against the original recordings of the interview audio data to confirm their accuracy (Silverman, 2019). The researcher looked for connections in the data that would help him build a more complete picture. Data analysis identifies emerging arrangements or themes that clarify the subject of study (Williamson, Given & Scifleet 2018).

Ethical Considerations

Research ethics comprises concepts, norms, and values that guide proper behaviour in research choices (Cottrell, 2014). It may also relate to applied ethics, which attempts to preserve study participants' well-being (Terre Blanche, Durrheim, & Painter, 2014). Furthermore, Grove, Gray and Burns (2015), assert that ethics include self-determination, privacy, anonymity, secrecy, correct choosing, fair treatment, and protection from pain and injury.

RESULTS AND DISCUSSION

Participants indicated that the policy of the long-term care home is to have a pain assessment done upon admission, whether residents are in pain or not. They said this initial pain assessment is used as a baseline for the future nursing care plan. Two subthemes emerged, namely, pain assessment and pain management measures. The subthemes and categories are presented in Table 1.

Table 1. Nurses' Response to Pain

Theme	Subthemes			Categories	
Nurses' Response to Pain	1.	Pain assessment	1.1	Pain indicators	
			1.2	Etiology of pain	
			1.3	Pain assessment tools	
	2.	Pain management measures	2.1	The use of standard pain management procedures	
			2.2	Embracing resident-centred care	
			2.3	Implementing pharmacologic and non-pharmacologic	
				strategies	

Subtheme 1: Pain assessment

Participants stated that in any situation where the pain is either verbalized or suspected, the first step is to make an assessment. Pain assessment starts from the first day of admission, and they mentioned various ways in which they conduct the assessment. According to Anon (2014), the health assessment must contain a complete medication history that includes current and old prescriptions and over-the-counter medications. Three categories emerged from the data: pain indicators, etiology of pain, and pain assessment tools.

Category 1.1: Pain indicators

The participants stated that the residents' self-report is the most accurate and reliable evidence of the presence of pain and its intensity. They also shared that self-report could not be used with residents who have cognitive, sensory, or motor deficits. They agreed that it is crucial first to determine the resident's ability to use the self-report. Facial expressions and body language were common pain indicators among older adults. Participants mentioned that some residents also indicate pain through shaking in their voice, facial expressions, body language and vocal signs. Other indicators are apparent confusion, social withdrawal and apathy. The statements below support the findings:

"I always observed residents' body appearance such as skin colour, swelling and tenderness closely to determine when they are in pain or showing any sign of pain because some of my residents are not able to say when they are in pain" (FG1, 36 years, Female).

"Typically, during the care, when I lift the resident from one place to another, they would be reluctant to move and some grab things tight when I am taking care of them, which could indicate that they are in pain" (FG2, 38 years, Female).

"I see that residents are in pain through behavioural observation, and I would try to compare their current presentation with the past to see if there is any correlation or not" (FG4, 40 years, Female).

"When residents do not wake up at their normal time, I will try to investigate this further by asking if they are okay, from this, I may know if there is any discomfort or pain that changes their pattern of sleep" (FG1, 45 years, Male).

"I know my residents are in pain through observation of how they walk or lack of interest to partake in activities or by asking them how they are feeling in case of any hesitation to walk or saying 'auch!' when touched," (FG3, 39 years, Female).

"When I see my residents are in discomfort, I use simple and concrete questions, for example, does this hurt and where does it hurt, I ask them to point to the body part that hurts, this helps me to determine the severity, and location" (FG4, 36 years, Female).

"Because some of my residents cannot express themselves in words, I use their facial expression, body language, and vocal sounds of pain like 'auch!' as an indicator of pain. Sensitiveness to touch, refusing to sit, protecting sore areas, disruptive behaviour, withdrawal, changes in sleep or appetite, increased confusion and crying" (FG1, 35 years, Female).

The findings are supported by Carpenter and Hirdes (2013), who determined that several provinces in Canada are using resident assessment indicator (RAI) assessments to enhance the pain indicators as part of pain assessment in a long-term care home. However, self-record is the most dependable indicator of pain; every reasonable effort needs to be made to appropriately talk with residents about their pain or discomfort (RNAO, 2013). The RAI-MDS 2.0 assessment is performed upon a resident's admission to the long-term care home to give a snapshot of their pain or likelihood of developing pain. This regular snapshot of a resident's pain over time provides indicators of the resident's pain (Carpenter & Hirdes, 2013). All nursing homes need to identify pain indicators for all residents (RNAO, 2013). Nurses need to be aware of the non-verbal hints of pain, especially among residents who have cognitive or communication difficulties (Carpenter & Hirdes, 2013).

Category 1.2: Etiology of pain

Participants stated that for them to assess pain efficiently, they need to know the cause, location, duration and intensity of the pain. They described the techniques they use to identify the etiologic of pain as inspection, palpation, percussion, and auscultation. Some said they do a comprehensive health history and complete physical examination. The following quotes indicate the participants' verbatim views:

"To ascertain the presence of pain, I do a thorough inspection from head to toe by asking them to show me the pain location and when the pain started" (FG3, 34 years, Female).

"To determine the cause of musculoskeletal pain, I do an initial inspection that includes evaluation of the musculoskeletal system to be able to know the root cause of the pain. I will also palpate for tenderness, inflammation, and trigger points" (FG2, 36 years, Female).

"...when I suspect a resident is in pain that might be due to arthritis, old fracture site pain and tissue injury, I do gentle rotations and palpations to exclude pain" (FG1, 37 years, Female).

Gromova and Myasoedova (2016), agree that the pathophysiology of pain is multifactorial and complex. Hogan (2014) also claims that a comprehensive resident physical examination from head to toe yields etiologic pain. Causes of pain are important in pain management among older adults because it helps to get baseline physical and mental data on the residents and confirm questions obtained in the nursing history (Hogan, 2014). Causes of pain also offer information that will help the nurses in determining nursing diagnoses and planning residents' care by evaluating the suitability of the nursing interventions in resolving the residents' pain problems (Hogan, 2014).

Category 1.3: Pain assessment tools

The participants stated that self-report pain rating scales are most commonly used to quantify pain intensity. They mentioned other varieties of tools they used to quantify pain intensity, such as NRS, VDS, FPS, and VAS for older adults. They also commented on how they combine the scale with the measurement of vital signs such as temperature, pulse, blood pressure, respiration and oxygen saturation to be able to diagnose pain. Nurses stated that vital signs could be affected by pain in several ways because a normal body response to pain is an increase in heart rate, breathing rate and blood pressure. All the participants made suggestions that assessment tools should be used by all units so that when a resident is transferred from one unit to another, the care would not be interrupted by using another pain assessment tool. The verbatim quotes that follow express the participants' views:

"I use pain scale tools to determine the level of pain such as the numeric rating pain scale to determine the degree of intensity of the pain, visual analog pain scale to determine the presence of pain and category of pain. I also ask residents to show me on the numeric pain scale level of their pain from range 1-10 because pain rate of 8-10 needs urgent attention and even need to call MDI" (FG2, 38 years, Female).

"I use behavioural Pain Scale because nurses consider it to be most appropriate for older adults, most especially when verbal communication is not possible to grade their pain. I do vital signs to see if there is any underlying factor to pain. When residents are in pain, blood pressure, heart rate, oxygen saturation, temperature and respiratory rate are taken to assess pain" (FG3, 40 years, Male).

Pain assessment tools are a broad process involving a clinical decision based on observation of the type, significance, and duration of the individual's pain experience (Manworren & Stinson, 2016). The tools that are not adequately used can result in ineffective pain control that can adversely affect the physical, emotional, and psycho-social aspects of residents (Undari-Schwarts, 2017). Selecting pain assessment tools should be a collaborative decision between residents and nurses (Laranjeira & Quintao, 2014). Therefore, nurses and providers need to consistently use valid, reliable,

and practical pain assessment tools that are appropriate for the residents (Booker & Haedtke, 2016). The assessment and measurement of pain in long-term care homes require a tool that is appropriately worded and easily understood (Flaherty, 2012). The Numeric Rating Scale is a widely used pain rating scale in long-term care homes (Anon, 2014).

Subtheme 2: Pain management measures

According to Lee Meyers (2016), pain management practices denote the activities the nurses perform to reduce residents' pain experiences. Participants stated various methods they used to manage residents' pain. Three categories emerged from the data: the use of standardized pain management procedures, embracing resident-centred care and implementing pharmacologic and non-pharmacologic strategies.

Category 2.1: The use of standardized pain management procedures

According to the participants, they use standardized pain management procedures in their various units. They indicated that having user-friendly resources would strengthen the pain control offered by nurses. Participants confirmed that despite the existence of a standard procedure within the long-term care home, many nurses used one they were comfortable with to manage pain. The following statements illustrate these points:

"In this long-term care home, different nurses are using different pain assessment measures, depending on the unit preference. When a resident is transferred from one unit to another, there is no continuity of pain management. We need to use the same standard throughout the home" (FG2, 45 years, Female).

"I think if our management could have more user-friendly tools for pain control, these resources should be made available to all units" (FG3, 38 years, Male).

"Um, I know that there is a policy on standard pain management, but I find that people are not following the policy because it is complex, and we do not have time, there is work overload. I think it is just a piece of document that needs to be done to show to the ministry that it is what we do in long-term care" (FG4, 39 years, Female).

The finding is supported by Anon (2014), who states that standard pain management procedure is systematically established to help nurses and residents in making pain management decisions. These recommendations may be accepted, adjusted, or rejected according to pain management needs (Society, 2013). The Registered Nurses Association of Ontario's best practice guideline RNAO (2013), presents 12 principles for pain assessment and management. The standards stated that residents need high-quality pain control measures because unrelieved pain has a negative implication on resident health and nurses should prevent pain where possible (RNAO, 2013). In addition, the standard also states that nurses are legally and ethically bound to advocate for changes in the pain management plan where pain relief methods are not effective (RNAO, 2013).

Category 2.2: Embracing resident-centred care

The concept of a resident-centred approach to pain management was mentioned in all the focus groups. This involved consideration of residents' characteristics when assessing pain, listening to residents carefully and observing behaviour. All the participants agreed that a structured programme for routine resident-centred care allows nurses to evaluate the resident's pain experiences. Participants shared:

"In the home, some of our residents cannot tell us they have pain; I look at the behaviours and the presentation of each resident to determine the management to be implemented and incorporated into each resident's unique care plan" (FG1, 34 years, Male).

"I use a holistic approach because how and when each resident expresses pain is different, so, I do not conclude that what works for resident A would work for resident B. I also make sure that residents are the centre of care" (FG3, 42 years, Female).

Many studies emphasize the importance of resident-centred care and its ability to improve the overall quality of care (Dondi-Smith, 2017). According to RNAO (2013), effective pain management is reliant on an accurate pain assessment and the implementation of an all-inclusive approach to pain that includes non-pharmacological and pharmacological methods.

Category 2.3: Implementing pharmacologic and non-pharmacologic strategies

All participants stated that they implement pharmacologic and non-pharmacologic strategies to manage their residents' pain. They described various non-pharmacological ways that include repositioning, exercise/physical activity,

music, pet therapy and relaxation techniques to manage pain. In addition, they use prescribed medications such as acetaminophen and ibuprofen. The statements that follow confirm the finding:

"Sometimes when residents are in pain I normally give them acetaminophen or Tylenol or Ibuprofen or Naproxen as prescribed by our physician and then monitor them for some hours, and if Tylenol did not work after 2-3 days, then I am going to go up to an opioid if there is standing order as per medical directive or I would call the doctor for new order" (FG3, 44 years, Male).

"Sometimes I would encourage residents to read newspapers, watch TV, listen to music to divert their attention from emotional pain" (FG3, 36 years, Female)

Non-pharmacological and pharmacological therapies play an important role in the pain management approach. While medications are being used to manage the physiological and emotional dimension of the pain, non-pharmacological therapies help to manage the affective, cognitive, behavioral, and socio-cultural dimensions of the pain (Jamison & Edwards, 2014). RNAO (2013), indicates that one of the essential nursing care services in long-term care facilities is that of implementing pharmacologic and non-pharmacologic strategies to manage pain. According to RNAO (2013), a combination of these techniques with reasonable quantities of drugs at the correct frequency to control pain with essential dosing is a fundamental nursing precept in dealing with pain in older adults.

CONCLUSION

The goal of pain management is to restore residents' functional capacity and improve their overall quality of life. Participants suggested organizational and interprofessional initiatives to improve pain management in long-term care homes. The findings revealed that nurses were eager to improve the residents' quality of life. They made several recommendations to improve their practises, including improved communication, ongoing nurse training, and increased family involvement in pain management initiatives. They also suggested that other strategies for improving pain management include providing resources for optimal pain assessment, implementing a reasonable workload for nurses, and introducing an incentive for nurses. The difficulties in identifying and assessing pain, as well as residents' resistance to reporting pain, were identified as barriers to optimal pain management. Anon (2014), supports the findings on the importance of training in general and on cultural pain assessment and management in particular. Participants suggested that facility administrators create culturally appropriate pain guidelines. This demonstrated their awareness of cultural diversity and the importance of cultural competence. They recognized the impact of high workload on them and proposed the use of a self-scheduling system as well as the implementation of incentives to reduce nurse turnover. According to the study's findings, improving an existing multidisciplinary team and strengthening referrals to other health professionals could also improve pain management. Finally, the findings of this study revealed measures to improve nurses' pain management, as well as nurses' strengths and limitations in pain management. Despite advancements in pain medicine, effective pain management is proportional to clinical as well as cultural factors. These issues must be identified and addressed because optimal pain management is required to avoid complications such as dependency and loss of function in older adults.

According to the findings of this study, nurses responded to an elderly person's pain expression through pain assessment. Residents with cognitive, sensory, or motor deficits were unable to express their pain adequately through verbal communication, according to the participants. As a result, they relied heavily on pain indicators such as facial expressions, vocal signs, increased confusion, and withdrawal. In addition to behavioral observations, they used a customized pain assessment tool. The standardized pain assessment tools, such as the numeric rating, verbal descriptor, faces pain scale, and VAS to respond to pain, were considered reliable but were not used uniformly by all nurses (Lee Meyers, 2016). The pain assessment included the standard nursing assessment procedures such as inspection and palpation, as well as a thorough physical examination and health history. The neuromuscular and musculoskeletal systems appeared to be the focus of the evaluation. According to Hogan (2014), pain etiology aids in obtaining information that leads to a nursing diagnosis and an effective plan of intervention. The choice of pain assessment tools should be made collaboratively by residents and nurses (Laranjeira & Quintao, 2014). As a result, nurses and care providers must consistently use pain assessment tools that are valid, reliable, and practical for the residents (Booker & Haedtke, 2016).

Other ways nurses responded to pain included the use of pharmacological and non-pharmacological methods such as diversional therapy. These appeared to have been prescribed by doctors; the study found no unique nursing interventions developed by these nurses. There was mention of resident-centered care approaches, but only a few appeared to use them. According to RNAO (2013), effective pain management is dependent on an accurate pain assessment and the implementation of an all-encompassing pain management approach that includes both non-pharmacological and pharmacological methods.

Limitation

According to the study's findings, increasing referrals to other health providers and upgrading an existing multidisciplinary team could help improve pain treatment. However, this study concentrated on nurses' pain management procedures at a single long-term care home facility in Ontario, Canada. As a result, the findings cannot be generalized to other institutions. A larger study of a representative sample of long-term care home facilities in the province would be required for generalization. Another limitation of this study was that it did not include resident comments on pain management.

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Competing Interest

The authors state that they have no financial or personal affiliations that might have affected their decision to write this paper.

Authors' Contributions

J.O.R. was in charge of the whole study process, including conceptualization, methodology design, research conduct and project management, data analysis, visualization, validation, report writing, and article drafting. J.O. R. was the overall study supervisor and contributed to the paper's idea, method design, validation, and critical review.

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Data Availability

The researcher saves data in a database.

Disclaimer

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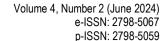
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