

Assessment and management of acute pain in older people: barriers and facilitators to nursing practice

AUTHORS

Sally Fitzgerald

RN, BN, PGDipHealSc(Nursing), MHealSc(Nursing – Clinical)(Credit) (Otago)
Clinical Nurse Specialist, Acute Pain Management Service, Christchurch Hospital, Private Bag 4710, Christchurch, New Zealand
sally.fitzgerald@cdhb.health.nz

Henrietta Tripp

DipNS(CPIT), BN(Massey), PGDipHealSc(Nursing), MHealSc (Distn.), PhD Cand. (Otago)
Lecturer, Centre for Postgraduate Nursing Studies, University of Otago, P O Box 4345, Christchurch, New Zealand
Henrietta.tripp@otago.ac.nz

Gillian Halksworth-Smith*

BA(Hons)(Sheff), MN(Wales), MSc(Glam), PGPC(Dist)(Wales), RN, RM

*At the time of the study, writing, and submission of this manuscript Ms Halksworth-Smith was employed by the Centre for Postgraduate Nursing Studies, University of Otago, New Zealand

KEYWORDS

pain, ageing, older person, acute, nurse

ABSTRACT

Objective

The aim of this review was to examine the pain management practices of nurses, and identify barriers and facilitators to the assessment and management of pain for older people, within the acute hospital setting.

Design

Integrative literature review.

Setting

Acute care for inpatients in a tertiary hospital.

Subjects

Older people defined as 65 years of age or over.

Primary argument

A nurse's individual practice was found to significantly influence how pain is managed in the older patient; this encompassed nurses attitudes, communication, documentation, and the use of pharmacological and non-pharmacological strategies. Nurses' ability to provide optimal care was found to be influenced by organisational factors such as workforce planning and the workplace environment. Provision of knowledge and skills to both nurses and older patients through education was found to facilitate better pain management; whilst a model of care whereby the nurse has authority and the patient is perceived as a passive recipient, was found to be a hindrance to optimal pain management outcomes.

Conclusion

Findings indicate that nurses need to improve communication with older patients, increase their knowledge of pain assessment and management principles in regards to this population, and have a greater awareness of human and social influences. Whilst organisational factors can impact upon nursing care, pain management needs to be highly prioritised and promoted as essential. Targeted education is required to overcome many of the identified barriers, and is a key recommendation from this review.

INTRODUCTION

Populations are rapidly ageing worldwide (World Health Organization 2015). The progressive loss of function associated with ageing often carries a significant burden of pain; in the acute hospital system, older people have the highest rates of hospitalisation, surgery, injury and disease (Gibson and Lussier 2012). Therefore it is imperative that health professionals are familiar with pain management approaches for the older person (Herr 2010).

The negative effects of pain can be particularly compromising in the older patient (Wells et al. 2008), and management strategies differ significantly from other groups (McLeish et al 2009). As well as the physiological changes associated with ageing, older people may have co-morbidities, sensory or cognitive impairments, and/or be taking multiple medications (Prowse 2006).

Pain management in the acute hospital setting is primarily a nursing responsibility (Prowse 2006). Effective treatment of pain should be achievable for all (Catananti and Gambassi 2010); however it is well documented that pain in older patients is frequently poorly managed (Halaszynski 2013; Herr 2010). In the acute hospital setting, multiple audits conducted have shown that pain management for the older patient is inadequate (Mehta et al 2010; Niruban et al 2010; Herr and Titler 2009; McLeish et al 2009; Eid and Bucknall 2008; Hwang et al 2006).

Previous literature reviews have explored the prevalence of (Prowse 2006) and health professionals contribution towards (Brown 2004) postoperative pain in older people; both identified there is little research focused on older people within the acute hospital setting (Prowse 2006; Brown 2004). This review sought to review current literature, and further explore the assessment and management of pain for the older patient within the acute hospital setting, with an aim to identify both barriers and facilitators to nursing practice.

METHODS

The integrative review method allows the combination of quantitative and qualitative studies, drawing together various perspectives of the phenomenon of concern (Whittemore and Knaf 2005). The Joanna Briggs Institute [JBI] (2014) review guidelines were followed. The literature search was limited to articles published between January 2004 and March 2014, and available in the English language. Databases searched were: Medline, Pubmed, CINAHL, Proquest Nursing Database, the Cochrane Library, Joanna Briggs Institute [JBI] and Psychinfo. The internet search engine www.google.com was also accessed.

Keywords:

Aged, elderly, geriatric, gerontology, older person*, older adult*, older people

Acute setting*, acute hospital, inpatient*

Nurs*, nursing, nursing assessment, nursing management

Acute pain, pain score, pain scale, pain assessment, analgesia, post-operative, postoperative, surgical pain, self-report, pain management

Included studies were required to focus solely on adults aged 65 and above, as well as pain management. Studies were required to have been conducted within the acute or sub-acute inpatient tertiary hospital setting; studies conducted within specialty areas such as emergency departments were included. Studies were also required to examine the practice of nurses; studies that also looked at other health workers were able to be included if the data regarding nurse participants was grouped separately.

Due to differences in physiology and management, studies on chronic or cancer pain were excluded. As many older people have some cognitive impairment (Halaszynski 2013), it was decided to only exclude studies that focused on moderate to severe dementia. Studies that focused on community care or nursing homes were excluded. Whilst ethical approval was not required for this review, the included studies were examined for ethical considerations.

Retrieved studies were assessed for methodological quality using the JBI (2014) critical appraisal tools which corresponded to the respective methodology of the studies. Studies were subject to a secondary review by the second and third authors; those which met less than seventy percent of criteria were excluded.

Standardised JBI (2014) data extraction forms were used to extract key findings that were relevant to the review objectives. A thematic analysis approach was taken (Whittemore and Knaf 2005). All extracted findings were reviewed and grouped into a set of conclusions, on the basis of similarity in meaning. These conclusions were then analysed into themes, which were then grouped into categories according to sufficient similarity in themes, to form a single set of synthesised findings.

RESULTS

The results of the search strategy are presented in figure 1. Twenty-seven articles were sourced of which thirteen were included in the review. Across these studies, a total of 9,161 older patients, and 756 nurses were represented. A total of one hundred and one findings were extracted from the thirteen studies. These findings were synthesised into fourteen themes, which were grouped into four categories; nursing practice, organisational factors, knowledge and education, and power balance.

Fourteen studies were excluded; five were audits which did not identify specific barriers or facilitators to pain management for the older patient. A further six studies, and two expert opinion papers, were excluded as they did not meet inclusion criteria. One study was found to use research findings that were already included in the review.

Figure 1: Search strategy table

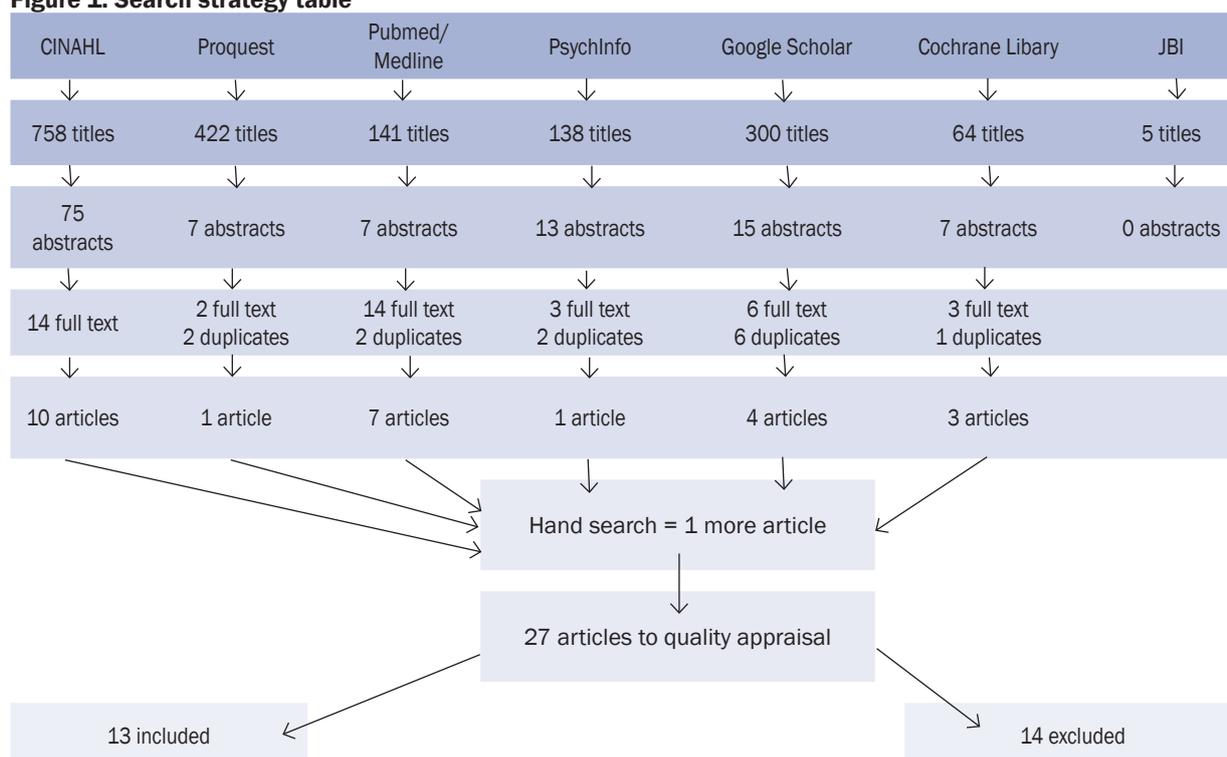


Table 1: Synthesised Results

| Category | Themes | Number of Findings Extracted from Studies |
|-------------------------|---|---|
| Nursing practice | Attitudes of nurses | N= 6 |
| | Communication between nurses and older patients | N=11 |
| | Documentation of pain assessment findings | N=6 |
| | Pharmacological strategies in pain management | N= 4 |
| | Non-pharmacological strategies in pain management | N=6 |
| Organisational factors | Collaboration within the multi-disciplinary team | N=5 |
| | Cultural factors in the workplace | N=9 |
| | Workforce planning | N=8 |
| Knowledge and education | The impact of nursing education | N=9 |
| | Nurses' knowledge, confidence, and experience. | N=7 |
| | The complex needs of the older patient | N=8 |
| | Patient knowledge and education | N=7 |
| Power balance | Patient perceptions and expectations | N=12 |
| | Nursing authority | N=4 |

Category one: Nursing practice

Four studies described attitudes of nurses that negatively influenced the assessment and management of pain in the older patient (Manias 2012; Coker et al 2010; Brown and McCormack 2006; Sauaia et al 2005). Nurses were observed to avoid and not respond to indicators of pain in older people (Manias 2012; Brown and McCormack 2006) and did not always believe the patient's self-report of pain (Manias 2012; Coker et al 2010; Sauaia et al 2005).

Communication was identified as an important influencing factor that negatively impacted upon pain management. Nurses used vague, ambiguous language when asking older adults about their pain (Manias 2012; Brown and McCormack 2006). Furthermore, assessment often lacked any in-depth questioning (Herr et al 2004) and for those patients with communication barriers, nurses did not always alter their approach (Manias 2012; Brown and McCormack 2006). Nurses' perceptions of pain intensity correlated poorly with patient reports (Coker et al 2008), and nurses demonstrated limited awareness of patients' pain, often missing cues that should have prompted further assessment (Manias 2012; Brown and McCormack 2006).

From the nurses' perspective, patient communication was reported to be a significant barrier to pain assessment (Herr et al 2004). Older patients often had trouble using pain assessment tools (Coker et al 2010), and the use of different language by older patients to describe pain, such as 'discomfort', was noted, which can potentially mislead the nurse into thinking that the pain is tolerable (Manias 2012; Coker et al 2010).

Documentation of a pain assessment was found to significantly improve the odds of a prescription for analgesia in older patients (Iyer 2011). Whilst identified as a potential facilitator, documentation may also be a barrier to pain management if it is not being completed to an adequate standard. Nursing documentation of pain assessment and management was found to be sub-optimal (Iyer 2011; Coker et al 2010; Coker et al 2008), particularly in those over seventy (Iyer 2011).

A lack of consistency in the use of pharmacological strategies in nursing practice was a further barrier to pain management (Manias 2012; Coker et al 2010; Gregory and Haigh 2008). The analgesia patients received was dependent upon each individual nurse; findings indicated that nurses preferred to utilise fixed-dose analgesia only, and can be reluctant to administer Pro-Re-Nata [PRN] analgesia (Manias 2012; Coker et al 2010; Gregory and Haigh 2008).

The use of non-pharmacological strategies was identified as a potential facilitator to managing pain in older patients (McCaffery and Loocsin 2006). However, nurses also reported that non-pharmacological methods of pain relief were unavailable for them to use (Coker et al 2010). Findings within this theme were not homogenous; some indicated that nurses use non-pharmacological interventions regularly (Manias 2012; Sauaia et al 2005) whilst others found little use at all (Brown and McCormack 2006).

Category two: Organisational factors

Nurses in the acute hospital setting work as part of a multi-disciplinary team; the effectiveness of communication between team members may impact upon the care given to the older patient (Iyer 2011; Coker et al 2010; Brown and McCormack 2006). Nurses identified communication with medical staff as a barrier to pain management (Coker et al 2010; Brown and McCormack 2006) and their reliance on prescriptions from doctors sometimes limited what they could administer (Iyer 2011).

The culture of the acute care setting may be defined as “a sense of what is valued and how things should be done” (Scott-Findlay and Estabrooks 2006, pp.499). Nursing practice within the acute hospital setting is often regimented and task-orientated which may contribute to a lack of in-depth assessment and individualised care (Manias 2012; Brown and McCormack 2006). Findings also indicated a culture of reluctance amongst nurses and physicians to give strong analgesia to older patients (Manias 2012).

Observational findings suggested that the ability of nurses to deliver adequate patient care was influenced by staffing levels and availability (Manias 2012; Coker et al 2010; Brown and McCormack 2006). It was also found that disorganised and fragmented nursing practice contributed to the under-management of pain (Coker et al 2010; Brown and McCormack 2006). Tasks such as double checking medications (Coker et al 2010), and frequent interruptions when performing tasks, interfered with pain management and were deemed to be the result of workforce planning (Brown and McCormack 2006).

Category three: Knowledge and education

Three studies found that a lack of education may be a barrier, and the promotion of education a facilitator to improving pain management (Manias et al 2011; Jackson 2010; Titler et al 2009). Education provided to nurses covered evidence-based material relevant to pain management of the older patient, as well as the importance of documentation; this resulted in improved nursing practice, and better pain control for patients (Manias et al 2011; Jackson 2010; Titler et al 2009).

Nurses' knowledge and experience can influence how they manage pain; some nurses were found to have inadequate knowledge of analgesics (Gregory and Haigh 2008), and in situations where pain was poorly controlled in older patients, nurses appeared to have little confidence and management strategies (Brown and McCormack 2006). Conversely, Herr et al. (2004) concluded that nurses may be aware of best practice principles, but not necessarily implement these in practice.

Multiple co-morbidities added complexity to the process of pain assessment and management for older people (Manias 2012; Coker et al 2010). The presence of confusion in older patients was found to be challenging for nurses, and a significant barrier to pain management (Manias 2012; Coker et al 2010). Coker et al (2010) found that nurses with less experience were more likely to identify this as a barrier than senior nurses.

The older patients' level of knowledge may influence pain management, as they often received little education and/or involvement in decision making (Brown and McCormack 2006). Findings suggested that they may hold misconceptions such as fear of addiction or side effects, which can lead to anxiety and reluctance to take analgesia (Manias 2012; Coker et al 2010; Brown and McCormack 2006; Sauaia et al 2005).

Category four: Power balance

In a therapeutic relationship, when the patient puts their trust in a nurse, the resultant influence should enable patients to be empowered, rather than controlled (Stein-Parbury 2013). This concept emerged as two themes; patient's perceptions and expectations, and nursing authority.

Patient perceptions of nurses and expectations of care, may contribute to their pain being poorly controlled. Findings indicated a paradoxical relationship between pain severity and satisfaction with pain management; older patients appeared to have an expectation of severe pain (Sauaia et al. 2005). Under-reporting of pain was also identified; contributing factors included a fear of bothering busy nursing staff, being viewed as a nuisance, and a perception that nurses can only give analgesia at set times (Coker et al 2010; Coker et al 2008; Brown and McCormack 2006; Sauaia et al 2005).

Findings indicated that nurses may misuse the authority they have over the patient when making decisions, which can impact upon pain management (Manias 2012; Brown and McCormack 2006). Nurses were observed using dismissive, scolding language with older patients (Brown and McCormack 2006), excluding patients from decision making, and adopting a policing role when administering analgesia, aiming to give as little as possible (Manias 2012).

DISCUSSION

Nursing practice

This review identified that attitudes and perceptions of nurses towards older patients can impact upon pain management. When health professionals are regularly exposed to people in pain, responsiveness can decrease (Rupp and Delaney 2004); this may explain the observed lack of engagement. However, the needs of older people are often given lower priority than younger patients; such attitudes develop unconsciously over time from social and cultural influences (Higgins et al 2007). To address this, health professionals should maintain an awareness of their own personal beliefs and biases, and examine how these may influence their practice (Dunwoody et al 2008).

A lack of comprehensive and individualised pain assessment has been identified as a barrier to pain management. Older adults commonly experience sensory and cognitive deficits, may need more time to answer questions, and may use different language to describe pain (Butler-Maher et al 2012). Nurses should therefore consider using synonyms for pain and take an in-depth approach, which encompasses self-reported data and observations of pain-related behaviour (Hadjistavropoulos et al 2007).

The prescribing of PRN analgesia is common practice in acute settings; nurse's knowledge and utilisation of this can be sub-optimal, a finding supported by other research (Gordon et al 2008; McCaffery et al 2007). Whilst PRN analgesia allows flexibility in meeting individual requirements, fixed-dose prescribing may improve analgesic administration rates (Eid and Bucknall 2008). Older patients experience more adverse effects than younger patients, and may have lower opioid requirements, therefore a multi-modal approach is recommended whereby a combination of medications are used at a reduced dose, to maximise analgesia and minimise side effects (Halaszynski 2013; MacIntyre and Schug 2007).

The use of non-pharmacological strategies may potentially improve pain management. The findings here

were not homogenous; however it is recommended that non-pharmacological strategies, including cognitive-behavioural as well as tactile methods, be part of the treatment plan for pain in older adults (Butler-Maher et al 2012). Documentation of pain assessment may also facilitate better pain control (Iyer 2011); unfortunately this was found to be sub-optimal in nursing practice; a finding supported by other research (Eid and Bucknall 2008; Niruban et al 2010).

Organisational factors

A culture of reluctance to give strong analgesia to older patients was identified; this may be reflective of societal fears and attitudes around opioids (Rupp and Delaney 2004). Whilst older patients are more susceptible to the adverse effects of opioids, the chances of addiction and misuse are usually low (American Geriatric Society 2009). Hence such misconceptions and knowledge deficits held by some health professionals need to be addressed for optimal pain relief to be achieved (Horgas et al 2012).

Findings indicate that nurses may be limited by inadequate prescriptions for analgesia (Coker et al 2010; Brown and McCormack 2006). However Herr and Titler (2009) found that even when opioids were charted, they were often not administered by nurses. More effective collaboration between nursing and medical staff is recommended to ensure timely prescriptions as well as the safe and effective utilisation of analgesia (Herr and Titler 2009).

High nurse workloads, time pressures, staffing issues, distractions and interruptions can all impact upon the nurse's ability to manage pain (Campbell 2013). A potential problem with this is that nurses may be more regimented in their approach and assess patients in a routine manner (Stein-Parbury 2013). Both organisations and individual nurses should promote individualised care rather than ritualistic practice; however when time is short, this can be difficult to achieve (Campbell 2013).

Nurses may feel pressured to complete tasks within a certain time frame; this can moderate their patience and tolerance to older patients (Higgins et al 2007). The institution itself has a responsibility to provide adequate resources (Horgas et al 2012); however it needs to also be highlighted that each individual carries a legal, ethical and professional obligation to provide an adequate standard of care (Jones and Schofield 2011). Whilst time pressures are a barrier to pain management, the vulnerability of older adults may contribute to their needs not being prioritised (Higgins et al 2007).

Knowledge and Education

A nurse's previous experience and knowledge may impact upon how pain is managed in the older patient. To improve practice, nurses must feel supported, confident and competent in their abilities, and have access to resources. The provision of education for nurses may be key in improving these factors. Education provided to nurses has resulted in improved practice, reduced perception of barriers, and better patient outcomes (Jackson 2010; Titler et al 2009).

Poor health literacy amongst older patients was also identified as a barrier; the provision of accessible information to patients can be a significant factor in achieving effective pain relief (MacIntyre and Schug 2007). In older patients particularly, education may be helpful in addressing historical misconceptions and fears around opioids (Brown et al 2013). Whilst not every patient may want to be involved in their care, by giving them access to information, as well as support, nurses can promote both self-efficacy and health literacy.

Power Balance

This review highlighted the power imbalances that can occur in practice. When admitted to hospital, older people are vulnerable; they may be unwell, in pain, experience feelings of isolation and have poor social

supports (MacIntyre and Schug 2007). Hadjistavropoulos et al (2007) stated that “the single most important psychological mediator relevant to pain is the individual’s perception of control” (pp32). Nursing practices identified in this review mimic a model of care where the nurse has the authority and the patient is a passive recipient (Stein-Parbury 2013). This model is discouraged in favour of a more holistic approach which promotes patient autonomy, self-determination and participation in decisions (Brown 2010).

Older patients have a tendency to under-report pain; this may be related to multiple factors, including their expectations of pain and stoicism (Jones and Schofield 2011; Dunwoody et al 2008). They may trust that the nurse will do all they can to manage their pain, have a fear of being viewed as a burden (Brown and McCormack 2006), and also fear the meaning of pain which could result in interventions, longer hospital stays, and a loss of independence (Hadjistavropoulos et al 2007). The promotion of self-efficacy is particularly relevant to older patients who may passively wait to be asked about pain. To address this, nurses need to be aware of their influence, and encourage patient participation (Butler-Maher et al 2012).

RECOMMENDATIONS

Findings from this review indicate that nurses need to improve their communication and interactions with older patients, as well as their knowledge of pain assessment and management principles. The implementation of compulsory in-service education on pain management with a specific focus on the older person is recommended. Such education should also cover barriers to pain management, assessment principles, the use of PRN and multi-modal analgesia, and the importance of documentation.

In order to address issues of power imbalance between nurses and older patients, the culture of nursing needs to be addressed. Education must therefore include discussions around the social construct of the older person, and the influence that nurses own attitudes, beliefs and values, as well as the culture of the ward, can have on the care that older patients receive. Nurses need to examine their own beliefs and attitudes; Higgins et al (2007) suggests a critical humanistic approach to education, with the use of case studies, to help nurses be more aware of the way they talk and think about older people.

In order to address the organisational factors that impact upon nurse’s ability to provide individualised care, strategies are needed to optimise resources. A commitment to improve pain management practices is needed at both management and ward levels; patient-centred individualised care, rather than ritualistic practice, needs to be promoted within institutions. Pain management interventions need to be highly prioritised and seen as essential; the development of evidence-based guidelines, pathways and compliance standards, specific to pain management in the older person, may encourage nurses to be more aware of their accountability and improve their practice.

The studies in this review were predominantly focused on nurses’ views and experiences, with only minimal representation of the older patients perspective on pain management in the acute setting. The authors therefore also recommend further research with a focus on the older persons perspective, in order to better identify their specific needs.

LIMITATIONS

It is possible that not all relevant studies were identified as this review was limited to studies printed in the English language. Had other languages been included, the findings of the review may have been strengthened.

CONCLUSION

The assessment and management of pain for the older patient is complex and multi-faceted, and remains a challenge within the acute hospital setting. This review has identified a need to improve multiple aspects of

nursing practice. Whilst organisational barriers were noted to impact upon nursing care, pain management for the older patient needs to remain a high priority in the acute setting. Nurses must engage older patients in their care, communicate effectively, complete comprehensive pain assessments, and be aware of their own beliefs and biases that can impact upon practice. Through the identification of barriers and facilitators, this review has identified a need for nursing education, and the promotion of individualised effective pain management within institutions, to overcome these barriers and promote better outcomes for the older population.

REFERENCES

- American Geriatrics Society. 2009. Pharmacological Management of persistent pain in older persons. *Journal of the American Geriatrics Society*, 57(8):1331-1346.
- Brown, C. 2010. Person-centred care in aged care, in Dr. P. Brown (ed). Health Care of the Older Adult. Woodslane Press: Warriewood, NSW.
- Brown, C., Constance, K., Bedard, D. and Purden, M. 2013. Colorectal surgery patients' pain status, activities, satisfaction, and beliefs about pain and pain management. *Pain Management Nursing*, 14(4):184-192.
- Brown, D. 2004. A literature review exploring how healthcare professionals contribute to the assessment and control of postoperative pain in older people. *Journal of Clinical Nursing*, 13(2):74-90.
- Brown, D. and McCormack, B. 2006. Determining factors that have an impact upon effective evidence-based pain management with older people, following colo-rectal surgery: An ethnographic study. *Journal of Clinical Nursing*, 15(10):1287-1298.
- Butler-Maher, A., Meehan, A.J., Hertz, K., Hommel, A., MacDonald, V., O'Sullivan, M.P., Specht, K. and Taylor, A. 2012. Acute nursing care of the older adult with hip fracture: An international perspective. *International Journal of Orthopaedic and Trauma Nursing*, 16(4):177-194.
- Campbell, J. 2013. Administration of PRN analgesia: Older people. In JBI (2014). Best Practice: Evidence Based Information for Health Professionals. Retrieved from <http://ovidsp.tx.ovid.com> (accessed 01.02.14)
- Catananti, C. and Gambassi, G. 2010. Pain assessment in the elderly. *Surgical Oncology*, 19:140-148.
- Coker, E., Papaioannou, A., Kaasalainen, S., Dolovich, L., Turpie, I. and Taniguchi, A. 2010. Nurses' perceived barriers to optimal pain management in older adults on acute medical units. *Applied Nursing Research*, 23(3):139-146.
- Coker, E., Papaioannou, A., Turpie, I., Dolovich, L., Kaasalainen, S., Taniguchi, A. and Burns, S. 2008. Pain management practices with older adults on acute medical units. *Perspectives*, 32(1):5-12. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/18623951> (accessed 01.02.14).
- Dunwoody, C.J., Krenzschek, D.A., Pasero, C., Rathmell, J.P. and Polomano, R.C. 2008. Assessment, physiological monitoring and consequences of inadequately treated acute pain. *Journal of PeriAnesthesia Nursing*, 23(1):15-27.
- Eid, T. and Bucknall, T. 2008. Documenting and implementing evidence-based post-operative pain management in older patients with hip fractures. *Journal of Orthopaedic Nursing*, 12(2):90-98.
- Gagliese, L. 2009. Pain and aging: the emergence of a new subfield of pain research. *The Journal of Pain*, 10(4):343-53.
- Gibson, S. and Lussier, D. 2012. Prevalence and relevance of pain in older persons. *Pain Medicine*, 13:23-26.
- Gordon, D.B., Pellino, T.A., Higgins, G.A., Pasero, C. and Murphy-Ende, K. 2008. Nurses' opinions on appropriate administration of PRN range opioid analgesic orders for acute pain. *Pain Management Nursing*, 9(3):131-140.
- Gregory, J. and Haigh, C. 2008. Multi-disciplinary interpretations of pain on acute medical units. *Nursing Education in Practice*, 8(4):249-257.
- Hadjistavropoulos, T., Herr, K., Turk, D.C., Fine, P.G., Dworkin, R.H., Helme, R., Jackson, K., Parmalee, P.A., Ruby, T.E., Beattie, L.B., Chibnall, J.T., Craig, K.D., Ferrell, B., Fillingim, L.B., Gagliese, L., Gallagher, R., Gibson, S.J., Harrison, E.L., Katz, B., Keefe, F.J., Lieber, S.J., Lussier, D., Schmader, K.E., Tait, R.C., Weiner, D.K. and Williams, J. 2007. An interdisciplinary expert consensus statement on assessment of pain in older persons. *Clinical Journal of Pain*, 23(1):S1-43.
- Halaszynski, T. 2013. Influences of the aging process on acute perioperative pain management in elderly and cognitively impaired patients. *The Ochsner Journal*, 13(2):228-247. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684333/> (accessed 01.02.14).
- Herr, K. 2010. Pain in the older adult: An imperative across all health care settings. *Pain Management Nursing*, 11(2):S1-S10.
- Herr, K., Titler, M.G., Schilling, M.L., Marsh, J.L., Xie, X., Ardery, G. Clarke, W.R. and Everett, L.Q. 2004. Evidence-based assessment of acute pain in older adults: current nursing practice and perceived barriers. *The Clinical Journal of Pain*, 20(5):331-340.
- Herr, K. and Titler, M. 2009. Acute pain assessment and pharmacological management practices for the older adult with a hip fracture: Review of ED trends. *Journal of Emergency Nursing*, 35(4):312-320.
- Higgins, I., Riet, P., Slater, L. and Peek, C. 2007. The negative attitudes of nurses towards older patients in the acute hospital setting: A qualitative descriptive study. *Contemporary Nurse*, 26(2):225-237.
- Horgas, A.L., Yoon, S.L. and Grall, M. 2012. Pain Management, in M. Boltz, E. Capezuti, T. Fulmer and D. Zwicker (eds). Evidence Based Geriatric Nursing Protocols for Best Practice (4th edn). Springer Publishing Company: New York.

- Hwang, U., Richardson, L. D., Sonuyi, T. O., and Morrison, R. S. 2006. The effect of emergency department crowding on the management of pain in older adults with hip fracture. *Journal of the American Geriatrics Society*, 54(2):270–275.
- Iyer, R.G. 2011. Pain documentation and predictors of analgesic prescribing for elderly patients during emergency department visits. *Journal of Pain and Symptom Management*, 41(2):367–373.
- Jackson, S.R. 2010. The efficacy of an educational intervention on documentation of pain management for the elderly patient with a hip fracture in the emergency department. *Journal of Emergency Nursing*, 36(1):10–15.
- Jones, D. and Schofield, P. 2011. Pain and Older People, in Tolson, D., Booth, J., and Schofield (eds). Evidence Informed Nursing with Older People. John Wiley: Chichester, England.
- MacIntyre, P.E. and Schug, S.A. 2007. Acute pain management: A practical guide. Elsevier: London.
- Manias, E. 2012. Complexities of pain assessment and management in hospitalised older people: A qualitative observation and interview study. *International Journal of Nursing Studies*, 49(10):1243–1254.
- Manias, E., Gibson, S.J., and Finch, S. 2011. Testing an educational nursing intervention for pain assessment and management in older people. *Pain Medicine*, 12(8):1199–1215.
- Manias, E., Bucknall, T. and Botti, M. 2005. Nurses' strategies for managing pain in the postoperative setting. *Pain Management Nursing*, 6(1):18–29.
- McCaffery, R. and Locsin, R. 2006. The effect of music on pain and acute confusion in older adults undergoing hip and knee surgery. *Holistic Nursing Practice*, 20(4):218–224.
- McCaffery, M., Pasero, C. and Ferrell, B.R. 2007. Nurses decisions about opioid dose. *American Journal of Nursing*, 107(12):35–39.
- McLeish, P., Mungall, D. and Weichula, R. 2009. Are we providing the best possible pain management for our elderly patients in the acute care setting? *International Journal of Evidence Based Healthcare*, 7(3):173–180.
- Mehta, S.S., Siegler, E.L., Henderson Jr, C.R. and Reid, M.C. 2010. Acute pain management in hospitalized patients with cognitive impairment: A study of provider practices and treatment outcomes. *Pain Medicine*, 11(10):1516–1524.
- Niruban, A., Biswas, S., Willicombe, S.C. and Myint, P.K. 2010. An audit on assessment and management of pain at the time of acute hospital admission in older people. *International Journal of Clinical Practice*, 64(10):1453–1457.
- Prowse, M. 2006. Postoperative pain in older people: A review of the literature. *Journal of Clinical Nursing*, 16(1):84–97.
- Rupp, T. and Delaney, K.A. 2004. Inadequate analgesia in emergency medicine. *Annals of Emergency Medicine*, 43(4):494–503.
- Sauaia, A., Min, S., Leber, C., Erbacher, K., Abrams, F. and Fink, R. 2005. Postoperative pain management in elderly patients: Correlation between adherence to treatment guidelines and patient satisfaction. *Journal of the American Geriatrics Society*, 53(2):274–282.
- Scott-Findlay, S. and Estabrooks, C.A. 2006. Mapping the organisational culture research in nursing: a literature review. *Journal of Advanced Nursing*, 56(5):498–513.
- Stein-Parbury, J. 2013. Patient and Person: Interpersonal Skills in Nursing (5th edn). Elsevier: Chatswood, NSW.
- The Joanna Briggs Institute. 2014. The Joanna Briggs Institute Reviewers Manual (2014 edn). The Joanna Briggs Institute: Adelaide, SA.
- Titler, M.G., Herr, K., Brooks, J.M., Xie, X.J., Ardery, G., Schilling, M.L., Marsh, J.L., Everett, L.Q. and Clarke, W.R. 2009. Translating research into practice intervention improves management of acute pain in older hip fracture patients. *Health Services Research*, 44(1):264–287.
- Wells, N., Pasero, C. and McCaffery, M. 2008. Improving the quality of care through pain assessment and management, in Hughes, R.G. (ed). *Patient Safety and Quality: An evidence based guidebook for nurses*. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK2658/?report=printable> (accessed 01.02.14).
- Whittemore, R. and Knafl, K. 2005. The Integrative Review: updated methodology. *Journal of Advanced Nursing*, 52(5):546–553.
- World Health Organization. 2015. *World Report on Ageing and Health*. World Health Organization: Geneva. <http://who.int/ageing/events/world-report-2015-launch/en/> (accessed 01.05.16).