Original Article

A Psychometric Evaluation of Three Pain Rating Scales for People with Moderate to Severe Dementia

Christine Neville, PhD,[*] *and Remo Ostini, PhD*[†]

Abstract:

Little comparative information exists regarding the reliability and validity of pain rating scales for nurses to assess pain in people with moderate to severe dementia in residential aged care facilities. The objective of this study was to evaluate the relative psychometric merits of the Abbey Pain Scale, the DOLOPLUS-2 Scale, and the Checklist of Nonverbal Pain Indicators Scale, three well-known pain rating scales that have previously been used to assess pain in nonverbal people with dementia. An observational study design was used. Nurses (n = 26) independently rated a cross-section of people with moderate to severe dementia (n = 126) on two occasions. The Abbey Pain Scale and the DOLOPLUS-2 Scale showed good psychometric qualities in terms of reliability and validity, including resistance to the influence of rater characteristics. The Checklist of Nonverbal Pain Indicators Scale also had reasonable results but was not as psychometrically strong as the Abbey Pain Scale and DOLOPLUS-2 Scale. This study has provided comparative evidence for the reliability and validity of three pain rating scales in a single sample. These scales are strong, objective adjuncts in making comprehensive assessments of pain in people who are unable to self-report pain due to moderate to severe dementia, with each having their own strengths and weaknesses. The DOLOPLUS-2 Scale provides more reliable measurement, and the Abbey Pain Scale may be better suited than the other two scales for use by nurse raters who only occasionally use pain rating scales or who have lower level nursing qualifications.
Crown Copyright © 2014 Published by Elsevier Inc. on behalf of the American Society for Pain Management Nursing

*From the *School of Nursing and Midwifery; †Healthy Communities Research Centre, The University of Queensland, Queensland, Australia.*

Address correspondence to Christine Neville, PhD, The University of Queensland, School of Nursing and Midwifery, Queensland 4072, Australia. E-mail: christine.neville@uq.edu.au

Received December 19, 2012; Revised August 15, 2013; Accepted August 16, 2013.

1524-9042/$36.00
Crown Copyright © 2014 Published by Elsevier Inc. on behalf of the American Society for Pain Management Nursing
http://dx.doi.org/10.1016/j.pmn.2013.08.001

INTRODUCTION

Despite a higher prevalence of chronic diseases such as arthritis and cancer, pain in older people and particularly those with dementia should not be dismissed as a part of normal aging. For people with dementia living in residential aged care

facilities (RACFs), pain occurs at a persistent rate. Prevalence of pain in this group has been recently reported at 43% (Leong, Chong, & Gibson, 2006), 47% (Torvik et al., 2010) and 68% (Zwakhalen et al., 2009). The critical issue, however, is that people with moderate to severe dementia are especially at risk for unidentified and undertreated pain, despite there usually being no differences in the potential physical causes for pain (Neville, McCarthy, & Laurent, 2006).

The adequate treatment of pain is also an area in which nurses, who are primary carers and are responsible for the management of pain, are increasingly being held accountable (Abbey et al., 2004). The assessment of pain concentrates on the pain description; alleviating or aggravating factors; its impact on functional, psychological and social status; and nurses' observations of pain, often based on interpretations of nonverbal cues. Assessment of pain is an important component in the treatment of pain, and there is a need for manageable, valid, and reliable tools to assess pain in people with dementia (Collett et al., 2007). A significant number of nurses are not aware of pain rating scales or do not use them routinely to justify their pain management interventions (McAuliffe et al., 2009; Neville, McCarthy & Laurent, 2006).

Standardized techniques of pain assessment are important for developing a credible care protocol. Pain rating scales help to systematize information gathering and eliminate some of the difficulties for nurses in deciding when and what form of pain relief is needed (Abbey et al., 2004). Consolidating information on a narrower range of quality tools should increase the likelihood of the most suitable tool being chosen. A number of recent reviews have examined pain rating scales for people with severe dementia and identified some that are more appropriate than others although all scales reviewed were deemed to have significant limitations (Herr et al., 2010; van Herk et al., 2007; Zwakhalen et al., 2006). Limitations of current scales included that they have often been tested only by developers with very small sample sizes, tested in limited clinical settings without the nurses who will use the scales, and finally, that they often lack reliability data. Zwakhalen et al. (2006) recommended that future research should focus not on developing more scales but rather on improving understanding of existing scales by further testing their validity and reliability. Scales must also be clinically useful in an environment that is often very busy and where staff working most closely with the person with dementia have only basic qualifications. Therefore, scales should require minimal time to complete and be easy to understand and use. To meet these recommendations and requirements, three pain rating scales for people with moderate to severe dementia have been chosen for a more detailed examination in Australian RACFs. These are the Abbey Pain Scale (APS Abbey et al., 2004), DOLOPLUS-2 Scale (DOLOPLUS-2: Lefebvre-Chapiro & the DOLOPLUS Group, 2001), and the Checklist of Nonverbal Pain Indicators Scale (CNPI: Feldt, 2000).

The APS has been recommended by The Australian Pain Society (2005) for the management of pain in residential aged care facilities. This scale has been used widely, and although several psychometric aspects have been tested, there are no test–retest reliabilty data available and the scale has not been tested independently for its reliability and validity with people with moderate to severe dementia in Australian RACFs. The DOLOPLUS-2 has widespread use in Europe and the United Kingdom (Holen et al 2005; NHS 2010; Pautex et al., 2006). It was originally developed in French and has since been translated into many other languages. The English version used in this study has had limited psychometric testing and none in Australia. The CNPI was developed in North America and has consistently rated well in many reviews (Herr, Bjoro & Decker, 2006; Herr et al., 2010; Zwakhalen et al., 2006) but has never been tested with an Australian population. The aim of this study was to conduct a psychometric evaluation of three pain rating scales for people with moderate to severe dementia who reside in Australian RACFs. The specific research questions are:

1. Are any of the scales more reliable when used with people with moderate to severe dementia in RACFs?
2. Are the scales valid for use with people with moderate to severe dementia in RACFs, particularly in terms of the factorial structure of the tests and when used by a range of nurses working in RACF settings?

METHODS

Participants and Settings

An observational study design was used to answer these questions. The study involved pain rating scale administration by 26 nurses from four RACFs situated in south-east Queensland, Australia. Participants included 157 long-term residents of these same RACFs who all had a reported diagnosis of dementia in their clinical file. Comprehensive data are available for 126 residents from three of the RACFs and the results reported here are for these participants. Ethical approval was obtained from The University of Queensland's Behavioral and Social Sciences Ethical Review Committee. All participating nurses provided informed consent and proxy consent was obtained for the participants with dementia.

Download English Version:

https://daneshyari.com/en/article/2677989

Download Persian Version:

https://daneshyari.com/article/2677989

Daneshyari.com