Geriatric Nursing xx (2017) 1–6

Contents lists available at ScienceDirect

Geriatric Nursing

journal homepage: www.gnjournal.com

Feature Article

The association of nurses' assessment and certainty to pain management and outcomes for nursing home residents in Jordan

Mohammad Rababa, PhD, RN *

Jordan University of Science and Technology, Irbid, Jordan

ARTICLE INFO

Article history:
Received 12 February 2017
Received in revised form
19 June 2017
Accepted 26 June 2017
Available online xxx

ABSTRACT

Despite advances in dementia care, pain in people with dementia is still undertreated due to poor assessment, poor treatment, and factors relating to nurses' critical thinking and decision-making skills. The purpose of the study is to examine temporally based relationships between change in behavior, the nurses' level of certainty regarding pain, assessment scope, and outcomes of pain. The findings of the study were consistent with the Response to Certainty of Pain model. This study found high percentage of variances accounted for by nurses' level of certainty due to potential unexpected confounding variables. This study may provide a new understanding of the relationship between nurses' certainty, assessment scope, and patient outcomes for people with dementia. Improved understanding of this relationship and how it relates to the problem of unrelieved pain in people with dementia is crucial.

Introduction

Pain is one of the most prevalent problems in the older adult population. Nearly 80% of older adults living in nursing homes (NH) and up to 50% living at home suffer pain.[1] People with dementia (PWD) are at even greater risk for unrelieved pain.[2] Studies have consistently shown the high prevalence of poor assessment and inadequate treatment of pain in NH residents with dementia.[3–5] In one study of NH residents a researcher found that nearly 78% of residents with dementia had chronic pain; however, the nurses caring for them had detected less than 50% of these painful conditions.[6] Up until now, there is no study about the prevalence of the problem of unrelieved pain among older adults in Jordan.

Pain assessment in PWD is still controversial. Self-report is considered the gold standard of pain assessment.[7] Self-report tools are the most reliable measure of pain as long as the person is able to report pain.[8] However, it is not clear if self-report tools are sufficient to assess pain in PWD if the patient can still self-report.[9] PWD often have both cognitive and communication problems that make them unable to verbally self-report their symptoms and comfort needs clearly.[10] For those PWD, observational scales are the only reasonable way to assess pain.[8] However, no study identifies specific behaviors that may almost certainly capture pain in PWD. It is challenging to assess pain in PWD if nurses misunderstand the needs or misinterpret the behaviors of pain in PWD.[11] These behaviors represent an inability to make needs known and for caregivers to comprehend needs. These behaviors include vocal complaints, restless body movement, facial grimacing, resisting care, aggression, nonverbal vocalizations, exiting behavior, tense body parts, rubbing a body part, shifting weight when seated, protecting a part of the body when moving, and slow movement.[12] However, nurses do not have a clear understanding of how these behaviors in PWD are manifested, even in those PWD who could self-report their pain. Also, it is often unclear whether pain or another unmet need is the primary cause of these behavior changes (Kovach).

Consequently, nurses may become uncertain regarding suspected pain in PWD and fail to provide timely treatment of pain or even any treatment at all.[13] Unrelieved pain in PWD can lead to serious negative health consequences, such as agitation, depression, weight loss, dehydration, sleep and activity pattern disturbance, functional and cognitive impairment, and prolonged hospitalization.[12]

Uncertainty regarding suspected pain may be a major barrier to adequately assess and treat pain in nursing homes throughout the world.[13,14]Although a first line treatment for pain is often pharmacological, nurses who are uncertain regarding suspected pain in PWD may delay effective treatment by using additional decision-making steps or may not provide any pain relief at all (Gilmore-Bykovskyi & Bowers). Theory and evidence suggest that uncertainty regarding suspected pain in PWD is primarily caused by: (1) underrecognition, misunderstanding, and misinterpreting of behavior changes in PWD by nurses; (2) complexity of pain assessment due to

* Jordan University of Science and Technology, School of Nursing, P O Box 3030, Irbid, 22110, Jordan.
E-mail address: mjrababa@just.edu.jo.

0197-4572/$ – see front matter © 2017 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.gerinurse.2017.06.015

inconsistency of behavior changes; (3) inability of PWD to clearly communicate with nurses Husebo, Ballard, Cohen-Mansfield, Seifert, & Aarsland, 2014.[15,16]

Gilmore-Bykovskyi and Bowers[13] developed the Responses to Certainty of Pain (RCP) model to describe the concept of nurses' certainty regarding suspected pain and how it relates to the problem of underassessment and under-treatment of pain in PWD. This model provides an understanding of the decision making process that nurses employ when caring for PWD in pain. The RCP model is the first model to posit relationships between nurses' level of pain certainty, scope of pain assessment, and health outcomes of NH residents with dementia. When a person with dementia has a change in behavior or condition, nurses may try out several critical thinking and decision-making trajectories.[13,17]

The RCP model (Fig. 1) describes two trajectories that are hypothesized to occur when a nurse has either a high or a low level of certainty of suspected pain. Both trajectories have three possible decision-making branches. The RCP model explains that when a nurse has a high level of certainty of suspected pain, the nurse follows the Response to Certainty Trajectory of decisions: in the first decision-making branch, the nurse decides to conduct a unidimensional assessment rather than a multidimensional assessment; in the second decision-making branch, if the unidimensional assessment leads to a high level of certainty of pain, the nurse decides to provide behavioral interventions along with analgesics in a timely manner and the person with dementia will have better outcomes; in the third decision-making branch, if the unidimensional assessment leads to a low level of certainty of pain, the nurse decides to delay or forgo treatment and the person with dementia will have worse outcomes.

In the RCP model, when a nurse has a low level of certainty of suspected pain, the nurse follows the Response to Uncertainty Trajectory of decisions: (1) the nurse decides to conduct a multidimensional assessment or uses a trial and error approach. (2) if the multidimensional assessment leads to a high level of certainty of pain, the nurse decides to provide behavioral interventions along with analgesics and the person with dementia will have better outcomes. (3) if the nurse decides to use a trial and error approach, the nurse will forgo treatment of pain and, the person with dementia will have worse outcomes.

The RCP model has never been tested empirically. No previous study has directly examined the relationships between nurses' level of pain certainty, assessment scope, and patient outcomes. Therefore, the purpose of the study is to partially test the RCP model by examining the relationships between nurses' level of pain certainty, scope of pain assessment, and health outcomes of NH residents with dementia. The hypotheses the study are stated below:

(1) Certainty of suspected pain by the nurse will be associated with scope of pain assessment provided to a PWD who has a change in condition.
(2) Pre-assessment level of nurses' certainty, assessment scope, and post-assessment level of certainty will be associated with pain outcome.
(3) Post assessment certainty is a unique significant predictor of resident outcomes.

Methods

Research design, sample, setting

A descriptive-correlational design was used in this study, which was conducted in five nursing homes in Amman, Jordan. A convenience sample of NH residents who have dementia and known pain or a known pain diagnosis were included in the study and yielded a sample size of 76. Sample size was determined by using power analysis. A-priori Sample Size Calculator for Multiple Regression[18] was used to calculate the sample size. Given an alpha level of 0.05, three predictor variables, an anticipated effect size of 0.15, and the desired statistical power level of 0.8, the minimum required sample size is 75.

The inclusion criteria of the study were: (1) NH residents who are aged 55 and above. (2) NH residents with known pain or a known pain diagnosis. Known pain was determined if older adults have any disease, injuries, or problems that usually cause pain for older adult

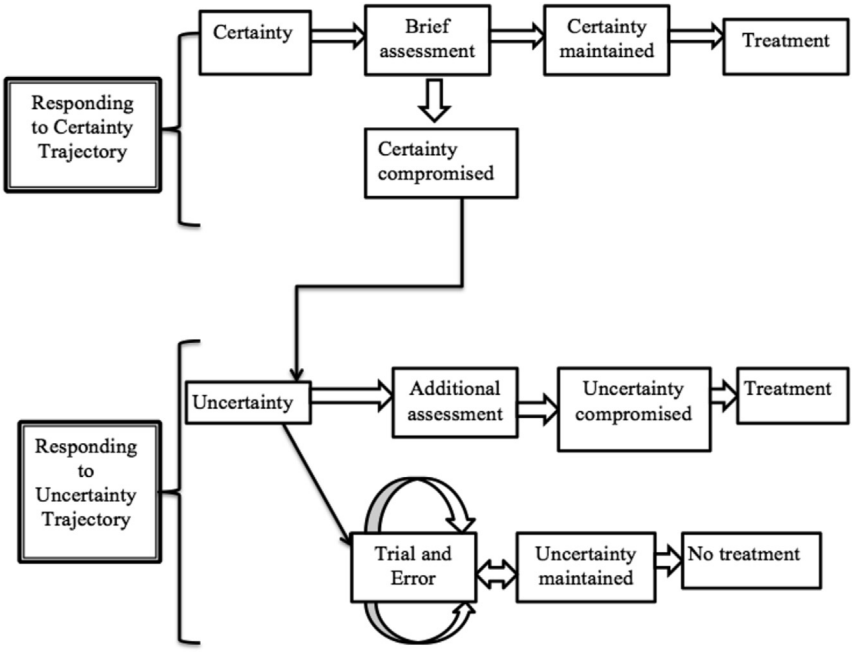

Fig. 1. The response to certainty model.