Models for predicting turnover of residential aged care nurses: A structural equation modelling analysis of secondary data

Fengsong Gao [a,*], Peter Newcombe [a,1], Cheryl Tilse [a,2], Jill Wilson [a,3], Anthony Tuckett [b,c,4]

[a] School of Social Work and Human Services, The University of Queensland, St Lucia, QLD 4072, Australia
[b] School of Nursing and Midwifery, The University of Queensland, Herston Campus, Herston Road, Herston, QLD 4006, Australia
[c] The University of Queensland/Blue Care Research and Practice Development Centre, P.O. Box 1539, Milton BC, QLD 4064, Australia

A R T I C L E   I N F O

A B S T R A C T

Background: Nurse turnover in the residential aged care industry is a pressing issue. Researchers have shown ongoing interest in exploring how the factors that are amendable to change in aged care policy, regulation and funding and in organizational procedures (e.g. job demands, coping resources and psychological health of nurses) impact on turnover. However, the findings are mixed.

Objective: This study tested two theoretical models of turnover to examine the structural relationships among job demands, coping resources, psychological health and turnover of residential aged care nurses. Although many previous studies operationalized turnover as intention to leave, the present study investigated actual turnover by following up with the same individuals over time, and thus provided more accurate predictive models of turnover behaviour.

Design and methods: The sample, 239 Australian residential aged care nurses, came from the Nurses and Midwives e-cohort Study. Job demands, coping resources, and psychological health were measured using standardized instruments. Structural equation modelling was used to test the measurement and structural models.

Results: Controlling for a number of workforce and individual characteristics, coping resources (measured by job control, supervisor support, and co-worker support) were negatively and directly associated with turnover. Additionally, the findings supported the Job Demand-Control-Support model in that higher coping resources and lower job demands (indicated by psychological demands, physical demands, and effort) were related to better psychological health (measured by vitality, social functioning, role emotional, and mental health), and higher job demands were related to lower coping resources.

Conclusions: Findings suggest that aged care policy makers and service providers might consider increasing coping resources available to nurses and minimizing job demands of care work to reduce turnover and improve nurses' psychological health. Moreover, findings from this Australian study may provide valuable practical and policy implications for other developed countries.

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* Corresponding author. Tel.: +61 43173 6957.
  E-mail addresses: annie.gao@uqconnect.edu.au, gaofengh@hotmail.com (F. Gao), newc@psy.uq.edu.au (P. Newcombe), c.tilse@uq.edu.au (C. Tilse), wilsonj@uq.edu.au (J. Wilson), a.tuckett@uq.edu.au (A. Tuckett).
 [1] Tel.: +61 7 3365 6830.
 [2] Tel.: +61 7 3365 3341.
 [3] Tel.: +61 7 3365 1254.
 [4] Tel.: +61 7 3346 5107.

What is already known about the topic?

- The Job Demand-Control-Support (JDCS) model proposes that the presence of job demands and the absence of coping resources may increase the risk of psychological problems. Some turnover studies applying the JDCS model assumed that turnover was a type of psychological outcome. However, this assumption is not widely supported by empirical evidence.
- Previous research has produced mixed findings in terms of the relationships between job demands, coping resources, psychological health, and turnover of residential aged care nurses.
- Often, research operationalizes turnover as turnover intentions rather than actual turnover.

What this paper adds

- This study tested two theoretical models, and supported the proposition that turnover may be a direct outcome of inadequate coping resources, and that adverse psychological health may be a consequence of both high job demands and low coping resources.
- This study examined actual turnover rather than turnover intentions, which confirmed and improved on previous findings.
- To reduce nurse turnover, aged care policy, regulation and funding and organizational procedures might better focus on supporting coping resources and optimal job demands.

1. Introduction

Turnover of nurses in the residential aged care (RAC) industry[5] is a pressing issue in many developed countries (Colombo et al., 2011). High turnover rates of nurses are associated with low quality of care (Castle and Engberg, 2005), poor wellbeing of nurses, and increased costs in staff recruitment and training (Hayes et al., 2006). Researchers have shown ongoing interest in exploring antecedents of RAC nurse turnover, given the detrimental effects of turnover, increasing demands for RAC nurses as a result of population ageing, and an attendant shortage in this health care workforce. In an investigation of personnel turnover, the impacts of job demands, coping resources, and psychological health have been of primary interest. However, it is unclear whether job demands and coping resources are directly associated with turnover or are indirectly linked through psychological health, and whether job demands predict different outcomes than do coping resources.

The purpose of this study was to shed light on these ongoing inquiries by testing the structural relationships between job demands, coping resources, psychological health and turnover of RAC nurses. Although this study was conducted using an Australian sample, it may provide useful insights into this phenomena for other developed countries, where RAC nurses share commonalities in terms of job demands, coping resources, psychological health and

turnover (Chenoweth et al., 2010). Additionally, due to the difficulties in collecting employee turnover data over time, many previous studies operationalized turnover as intention to leave or measured both turnover and its predictors at a static point in time (Mor Barak et al., 2001). The present study investigated actual turnover by following up with the same individuals over time, and provided more accurate predictive models of turnover behaviour (Hayes et al., 2006). A better understanding of these structural relationships will have significant implications for RAC service providers by assisting to develop tailored strategies to reduce turnover and improve nurses' psychological health. Policy makers could use this understanding to enhance retention and hence improve care standards.

2. Background

2.1. Australian RAC system and RAC nurse turnover

The Australian RAC system provides care for older people who are assessed as having care needs that cannot be met at home. Service providers include not-for-profit, for-profit and occasionally government organizations. RAC is funded by a mix of Australian government contributions linked to the care needs and means-tested user contributions (Department of Health and Ageing, 2012). Operating under the *Aged Care Act* 1997, the Australian government regulates entry to residential care through national assessment teams, sets policy and the required standards of care, and monitors compliance of providers through a standards agency and a system of inspection (Department of Health and Ageing, 2009).

The demand for aged care workforce in Australia is projected to approximately triple by 2050, as a result of population ageing and expected decline in the availability of informal caregivers (i.e. family, friends and neighbours) (Colombo et al., 2011). The last decade has seen a 23% increase in the total number of permanent residents in Australian RAC, with residents aged 85 years and older providing 89% of the total increase (Australian Institute of Health and Welfare, 2011), indicating a rapid rise in residents' dependency level and increasing complexity of the care needed. The Productivity Commission (2011), an independent research and advisory authority for the Australian Government, recently identified that a key challenge faced by RAC over the next 40 years is building an adequate workforce, including a considerable expansion of RAC nurses, in order to meet increasing service demands.

The RAC direct care workforce mainly comprises nurses and personal care assistants. Registered nurses play a key role in RAC, generally assuming professional leadership in care, and management of facilities, including preparing documentation for accountability to the Australian government. The escalating complexity of care highlights the need for quality nursing leadership and management in RAC.

However, attraction, retention and turnover of nurses are ongoing concerns for many RAC service providers. The aged care sector is reportedly seen as relatively

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[5] RAC refers to the provision of care in residential facilities. In the literature, this is also called nursing home care or long-term care (LTC).