JAMDA 16 (2015) 629.e19–629.e28

JAMDA

journal homepage: www.jamda.com

Original Study

Cluster Randomized Controlled Trial of An Aged Care Specific Leadership and Management Program to Improve Work Environment, Staff Turnover, and Care Quality

Yun-Hee Jeon RN, PhD [a,*], Judy M. Simpson PhD [b], Zhicheng Li BHSc(Hon) [a], Michelle M. Cunich PhD [c], Tamsin H. Thomas MSc [a], Lynn Chenoweth RN, PhD [d], Hal L. Kendig PhD [e]

[a] *Sydney Nursing School, The University of Sydney, Camperdown, New South Wales, Australia*
[b] *Sydney School of Public Health, Edward Ford Building (A27), The University of Sydney, New South Wales, Australia*
[c] *NHMRC Clinical Trials Center, The University of Sydney, Camperdown, New South Wales, Australia*
[d] *Center for Healthy Brain Aging, University of New South Wales, New South Wales, Australia*
[e] *Center for Research in Aging, Health, and Wellbeing, Australian National University, Acton, Australian Capital Territory, Australia*

Keywords:
Clinical leadership
long-term care
work environment
leadership styles
care quality

A B S T R A C T

Objective: To evaluate the effectiveness of a leadership and management program in aged care.
Design: Double-blind cluster randomized controlled trial.
Setting: Twelve residential and community-aged care sites in Australia.
Participants: All care staff employed for 6 months or longer at the aged care sites were invited to participate in the surveys at 3 time points: baseline (time 1), 9 months from baseline (time 2), and 9 months after completion of time 2 (time 3) from 2011 to 2013. At each time point, at least 500 care staff completed a survey. At baseline (N = 503) the largest age group was 45 to 54 years (37%), and the majority of care staff were born in Australia (70%), spoke English (94%), and had at least completed secondary education (57%).
Intervention: A 12-month Clinical Leadership in Aged Care (CLiAC) program for middle managers, which aimed to further develop their leadership and management skills in creating positive workplace relationships and in enabling person-centered, evidence-based care.
Main outcome measures: The primary outcomes were care staff ratings of the work environment, care quality and safety, and staff turnover rates. Secondary outcomes were care staff's intention to leave their employer and profession, workplace stress, job satisfaction, and cost-effectiveness of implementing the program. Absenteeism was excluded due to difficulty in obtaining reliable data. Managers' self-rated knowledge and skills in leadership and management are not included in this article, which focuses on care staff perceptions only.
Results: At 6 months after its completion, the CLiAC program was effective in improving care staff's perception of management support [mean difference 0.61, 95% confidence interval (CI) 0.04–1.18; $P = .04$]. Compared with the control sites, care staff at the intervention sites perceived their managers' leadership styles as more transformational (mean difference 0.30, 95% CI 0.09–0.51; $P = .005$), transactional (mean difference 0.22, 95% CI 0.05–0.39; $P = .01$), and less passive avoidant (mean difference 0.30, 95% CI 0.07–0.52; $P = .01$); and were rated higher on the overall leadership outcomes (mean difference 0.35, 95% CI 0.13–0.56; $P = .001$) as well as individual manager outcomes: extra effort ($P = .004$), effectiveness ($P = .001$), and satisfaction ($P = .01$). There was no evidence that CLiAC was effective in reducing staff turnover, or improving patient care quality and safety.
Conclusions: While the CLiAC leadership program had direct impact on the primary process outcomes (management support, leadership actions, behaviors, and effects), this was insufficient to change the systems required to support care service quality and client safety. Nevertheless, the findings send a strong message that leadership and management skills in aged care managers can be nurtured and used to change leadership behaviors at a reasonable cost.

With an aging population, accompanied by the rising prevalence of long-term conditions and multimorbidity among older people, there is a growing concern for the effectiveness and sustainability of the skilled nursing and care workforce to ensure care quality for frail

Trial registration Australian New Zealand Clinical Trials Registry (ACTRN12611001070921).

* Address correspondence to Yun-Hee Jeon, RN, PhD, Sydney Nursing School, The University of Sydney, A5.13, 88 Mallet St, Camperdown, NSW 2050, Australia.
E-mail address: yun-hee.jeon@sydney.edu.au (Y.-H. Jeon).

http://dx.doi.org/10.1016/j.jamda.2015.04.005
1525-8610/

older people.[1–4] Recent reviews of aged care[5] have highlighted the need for a skilled workforce to meet the chronic and complex care needs of older aged care recipients. The quality of aged care provision in Australia has been described as being far from optimal[5]; a global issue causing concern for many governments in developed countries. This concern has prompted recent changes to health, aged, and social care policies worldwide.[1–4] Most policy changes aiming to improve service quality have tended to focus on funding mechanisms, directions and re-distributions in health services, new models of care, or extra education and training of existing care staff. Yet, these strategies can become a "band-aid solution," because the problem of poor care quality is often deeply embedded in the system and culture of aged care services.[6]

Improving aged care quality requires policymakers to pay greater attention to several aspects of the organizations, such as the resource model used, facility ownership, size and occupancy rates, management structure, total licensed staff hours, wages, and client case-mix.[7–9] Higher registered nursing staff ratios have been associated with better health outcomes for aged care clients,[10,11] while a poor skill-mix has been linked to higher staff error rates and iatrogenic client deaths.[12] Other staff characteristics such as low worker and managerial stability and high agency staff use have also been shown to be significantly associated with lower care quality in nursing homes.[8,13,14] Work environment and leadership (separately, and as part of, the work environment) are 2 of the most common factors associated with improvements in job satisfaction, job stability (turnover/retention and intention to stay/leave), and client care quality.[6,15,16] Two recent randomized controlled trials (RCTs) that examined the effectiveness of person-centered care and psychosocial interventions in Australian nursing homes further highlight the importance of managerial support and leadership in ensuring positive staff and resident outcomes.[17,18]

The work environment is a multidimensional construct inclusive of the interpersonal, organizational, structural, and professional characteristics of the workplace.[19] A work environment is considered supportive when the organization operates with a strong service mission and staff have "adequate supervision, access to professional and emotional support, the establishment of systems that provide feedback to staff (such as regular staff appraisal), and the presence of strong professional leadership."[20] Contrary to common belief, remuneration and personal characteristics of staff alone may not necessarily be associated with job satisfaction and staff retention; instead, greater opportunities for involvement in care decision-making, personal growth in the workplace, and management style have important roles to play in determining these individual behaviors.

Aspects of the work environment that have been shown to be associated with job satisfaction include good relationships with coworkers and supervisors,[21] general work climate and organizational support,[22] role clarity and stress,[23] perceived personal autonomy, opportunities for personal growth and development within the organization, perceived task orientation and efficiency of the workplace.[24] Researchers in the USA have also demonstrated that low turnover of staff has a positive impact on the work environment as indicated by manageable work pressure, peer cohesion, supervisor support, autonomy, and innovation.[25]

Leadership capacity of managers and supervisors in aged care is important. They can influence care staff's job satisfaction, perceptions of their work environment, perceptions of their main roles and responsibilities, their perceived level of control, their perceived value in the workplace, retention, and intentions to leave (or stay).[16,26,27] Managers play a pivotal role in setting and improving the standards of care and the health and well-being of aged care clients, which has the potential to achieve improvements in cost-effectiveness.[28,29] Although empirical research has yet to confirm direct links between leadership capacity and health outcomes of aged care clients, 2 recent studies have showed a significant positive relationship between leadership practices and increased client satisfaction and reduced adverse events, such as behavioral symptoms, restraint use, pressure ulcers, complications of immobility, fractures and falls, and medication errors.[28,29]

Middle managers in aged care are mostly registered nurses, and they play a pivotal role in responding effectively to the high expectations placed on the aged care sector.[30] Despite emerging evidence that effective leadership is critical to improving the care quality and health outcomes of older people, as well as job satisfaction and retention of staff, no RCT to date has been conducted to build reliable and high-quality evidence for the effectiveness of an aged care specific leadership and management program.[31,32]

The aim of the present study was to apply a rigorous research design to determine the effectiveness of an aged care specific leadership and management program [the Clinical Leadership in Aged Care (CLiAC)] in Australian aged care services. The primary hypotheses were that, compared with the control sites, the intervention sites would have an improved work environment (H1), improved care quality and safety (H2), and reduced staff turnover rates (H3). Secondary hypotheses included reduced staff absenteeism (H4), decreased "intention to leave" (H5), reduced stress levels amongst staff (H6), increased job satisfaction (H7), and reduced costs of retaining and recruiting staff (H8) at intervention sites. A ninth hypothesis about managers' self-rated knowledge and skills in leadership and management is excluded from this article, which focuses on care staff perceptions.

Methods

A double-blind cluster randomized controlled trial design was used for the CLiAC study, which complied with the CONSORT (Consolidated Standards of Reporting Trials) guidelines.[33] Because people with managerial/supervisorial responsibility (hereafter "managers") work with their staff at each site in the delivery of care and services, the care site was deemed the appropriate unit of randomization. Details of the study protocol have been reported elsewhere.[34] Ethical approval for the study was granted by the collaborating organization's ethics committee (HREC Code: EC00432), which was subsequently ratified by the Human Research Ethics Committee at the University of Sydney (HREC Database No. 13405).

Setting

The study was conducted at both residential and community aged care services of a collaborating aged care organization, located in urban and rural areas in New South Wales and the Australia Capital Territory in Australia, between February 2011 and August 2013. The collaborating organization is one of the largest aged care service providers on the eastern seaboard of Australia, employing over 4000 staff across New South Wales and the Australia Capital Territory.

Recruitment

Recruitment and follow-up of targeted aged care sites occurred between February 2011 and August 2013. We divided the 45 eligible services belonging to the aged care organization into 2 lists of 20 residential care and 25 community care sites. We excluded sites that were currently (or in the near future) undergoing major management/structural changes. Each eligibility list was randomly sorted and sites were approached in order until 12 residential and 12 community care sites had agreed to participate. The recruitment process consisted of (1) engaging targeted aged care services to participate and agree to