Original Study

The Influence of Organizational Context on Best Practice Use by Care Aides in Residential Long-Term Care Settings

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ABSTRACT

Objective: This study assessed individual and organizational context (work environment) factors that influence use of best practices by care aides (nursing assistants) in nursing homes. Little scientific attention has been focused on understanding best practice use in nursing homes and almost none on care aides.
Setting and participants: A total of 1262 care aides in 25 nursing homes in the 3 Canadian prairie provinces. Care aides are unregulated workers who provide 80% of direct care to residents in Canadian nursing homes.
Method: We used hierarchical linear modeling to (1) assess the amount of variance in use of best practices, as reported by care aides, that could be attributed to individual or organizational factors, and (2) identify predictors of best practices use by care aides.
Results: At the individual level, statistically significant predictors of instrumental use of best practices included sex, age, shift worked, job efficacy, and belief suspension. At the unit level, significant predictors were social capital, organizational slack (staffing and time), number of informal interactions, and unit type. At the facility level, ownership model and province were significant. Significant predictors of conceptual use of best practices at the individual level included English as a first language, job efficacy, belief suspension, intent to use research, adequate knowledge, and number of information sources used. At the unit level, significant predictors were evaluation (feedback mechanisms), structural resources, and organizational slack (time). At the facility level, province was significant. The R^2 was 18.3% for instrumental use of best practices and 43.4% for conceptual use. Unit level factors added a substantial amount of explained variance whereas facility level factors added relatively little explained variance.
Conclusions: Our study suggests that context plays an important role in care aides' use of best practices in nursing homes. Individual characteristics played a more prominent role than contextual factors in predicting conceptual use of best practices.
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Although evidence-based practice was recently identified as a high priority for international research on nursing home care,[1] we currently see little attention to knowledge translation by the care aides who provide essential daily care and quality of life care.[2] Implementation science has, to date, focused almost exclusively on professional and regulated care providers (eg, physicians, nurses, allied health professions) in hospital or primary care settings. A recent review[3] of the knowledge translation literature revealed an astonishingly low proportion of studies related to care of older adults and an even lower proportion relating to care of older adults in nursing home settings. Knowledge translation studies of the nursing home sector or care aides in nursing homes are, with a few notable exceptions,[4,5] effectively nonexistent.

Residents living in nursing homes are older and admitted later in the trajectories of their chronic diseases than in previous decades. Most have a diagnosis of dementia. They are, therefore, more dependent, more frail and vulnerable, and have more complex needs, requiring more sophisticated care.[6] They have significant needs for better care at end of life[7] and for consideration of what constitutes quality of care and quality of life at the end of their lives. In Canada 80% of direct "point of care" services to nursing home residents is provided by a group of unregulated workers[4] with various titles including personal support workers, care aides, and nursing assistants. Few reports even describe the characteristics of these frontline members of the care team, but care aides are essential elements of any efforts to improve quality of care and quality of life in nursing homes.[8] Encouraging the use of best practices among these care providers is, thus, pivotal. We located only 1 (qualitative) report of a study that examined best practice use in care aides.[4] This report described challenges for care aides in using best practice that included a context of uncertainty resulting from the complexities and unanticipated features of dementia care work, lack of recognition and struggles with being valued members of the team, and high needs for constructive peer relationships. We located no studies that considered the effects of individual and organizational factors on care aides' use of best practices in nursing homes settings.

The role and influence of organizational context (ie, the work environment) in research implementation and quality improvement success has been examined from multiple perspectives, including systematic and general reviews on innovation and quality improvement,[9–14] calls for theory use in improvement science,[15] framework and tool development,[16–22] theory development,[23–25] and empirical studies generally.[26–32] Reviews by Denison,[33] Dopson,[34] Glisson,[35] Hofstede,[36] and Kaplan et al[11] give starting views of the complex roles for context in supporting or impeding best practice use and quality improvement initiatives. The general consensus is that context has a significant role in implementation success or failure. In the nursing home literature on culture change, specific elements of nursing home culture are believed to be associated with positive outcomes. Reports associate positive outcomes with cultures that are more person-centered, less controlling, and more relationship-based with lower rates of feeding tube placement,[37] lower restraint use,[38] reduced antipsychotic prescribing,[39] and higher reported and observed quality of care.[40]

We investigated the influence of individual and organization context factors on use of best practices by care aides in nursing homes in the Canadian prairie provinces. Our objectives were to (1) assess the amount of variance in use of best practices, as reported by care aides, that could be attributed to individual or organizational factors, and (2) identify predictors of best practice use by care aides.

Methods

Our data are from the Translating Research in Elder Care (TREC) program. TREC is a multilevel (provinces, regions, facilities, units within facilities, care providers), longitudinal research program that examines modifiable characteristics of organizational context in nursing homes. TREC studies context in relation to knowledge translation (best practice use) by care providers and the impact of context and knowledge translation on quality of care and staff well-being.[41]

Sampling

TREC is situated in nursing homes in the Canadian prairie provinces of Alberta, Saskatchewan, and Manitoba. TREC phase 1 (2007–2012) selected 30 urban nursing homes using stratified (by health care region, owner-operational model, and size) random sampling; 6 additional nursing homes were a convenience sample from 1 province. Our sample for analyses in this article was the 25 urban TREC nursing homes that had at least 2 resident care units.

Data Sources and Data Collection

We collected data (July 2009–June 2010) from (1) the TREC Facility Survey (eg, number of beds); (2) the TREC Unit Survey (eg, number of in-services provided); and (3) the TREC Provider survey (care aides) (Figure 1). TREC Facility and Unit surveys were short structured interviews with nursing home administrators (facility data) and care managers (unit data). All care aides in participating nursing homes who could be contacted were invited to complete the Provider Survey if they (1) identified a unit where they had worked for at least 3 months and were currently working, and (2) worked at least 6 shifts per month on that unit. Research assistants administered the survey to care aides with computer-assisted, structured personal interviews.[42,43] The TREC surveys measure organizational context, best practice use, staff outcomes, and select individual factors believed to influence best practice use (Table 1).

Measures—Dependent Variables

We defined the instrumental use of best practices (instrumental research use or IRU) as concrete application of best practices where the best practice knowledge is normally translated into a material and useable form, such as a protocol. The best practice knowledge in this case is used to make specific decisions or interventions.[44] IRU is then, direct and concrete use of research evidence in practice (eg, use of guidelines)[45] and was measured by a single item scored on a 5-point frequency scale from 1 "never use" to 5 "almost always use." The IRU item has been shown to be acceptable.[46,47] In conceptual use of best practices (conceptual research use or CRU) the best practice knowledge may change one's thinking but not necessarily one's particular action. In this kind of use, the knowledge informs and enlightens the user.[44] CRU is then the cognitive use of research; here research findings may change opinion or mind-set about a specific practice but not necessarily particular action.[48] CRU was measured with 5 items scored on the same scale as IRU. Overall CRU score is the mean of the 5-item scores. The CRU scale is acceptable, reliable and valid with care aides[48,49]; Cronbach's alpha for the CRU for this study was .870.

Measures—Independent Variables

Definitions of our independent variables, their measurement and reliability are given in the Table 1. Independent variables are (1) TREC Facility Survey: number of beds, presence of a clinical educator, operation model, and province; (2) TREC Unit Survey: unit type (eg, locked) and number of in-services offered on resident care; (3) TREC (Provider) Survey: (a) 12 elements of context (leadership, culture, evaluation, social capital, informal interactions, formal interactions, structural resources, organizational slack—staff, organizational