

Research Article

Supportive Supervision and Staff Intent to Turn Over in Long-Term Care Homes

Jennifer Bethell, PhD,^{1,*} Charlene H. Chu, RN, GNC(c), PhD,¹
Walter P. Wodchis, PhD,^{1,2,3} Kevin Walker, MSc,² Steven C. Stewart, PhD,¹ and
Katherine S. McGilton, PhD, RN,^{1,4}

¹Toronto Rehabilitation Institute, University Health Network, Toronto, Ontario, Canada. ²Institute of Health Policy, Management and Evaluation, University of Toronto, Ontario, Canada. ³Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada. ⁴Lawrence S. Bloomberg Faculty of Nursing, University of Toronto, Ontario, Canada.

*Address correspondence to Jennifer Bethell, PhD, Toronto Rehabilitation Institute, University Health Network, Toronto, Ontario M6K 2R8, Canada. E-mail: Jennifer.bethell@uhn.ca

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Abstract

Background and Objectives: To examine the association between supervisory support and intent to turn over among personal support workers (PSWs) employed in long-term care (LTC) homes in Ontario, Canada, by assessing whether the association is mediated by job satisfaction and the potential confounding effect of happiness.

Research Design and Methods: Cross-sectional survey data of 5,645 PSWs working within 398 LTC homes in Ontario, Canada, were obtained and analysed through a series of multilevel regression models.

Results: Overall, analyses support the assertion that the effect of supervisory support on intent to turn over is partially mediated by job satisfaction. However, happiness may act as an effect modifier rather than as a confounder.

Discussion and Implications: These results reinforce the importance of supportive supervision for PSWs working in LTC homes and highlight the multifaceted role of nurses in LTC, who traditionally provide the majority of PSW supervision. Nurses must be equipped with competencies and skills that reflect the complex organisational environments in which they work. However, these results must also be interpreted in context with the limitations of cross-sectional data; future research should incorporate prospective data collection and clarify the potential role of happiness.

Keywords: Long-term Care, Workforce Issues, Caregiving—Formal, Nursing, Nursing homes, Personal support workers

Personal support workers (PSWs), also known as care aides, direct-care workers, or nursing assistants, provide the majority of direct care in long-term care (LTC) homes (Khatutsky et al., 2011) which is crucial to resident quality of life (Morley, 2014). PSWs assist LTC residents, many of whom have dementia and other complex needs, in activities of daily living, recreation, and ambulation (HPRAC, 2006); the work is varied, physically demanding, often without training or advancement opportunities and not well-paid (Potter, Churilla, & Smith, 2006). The workforce is roughly 90% women and many are foreign born (Estabrooks et al.,

2015; PHI, 2011). Despite reporting high job efficacy and vocational satisfaction (Estabrooks et al., 2015), there is high staff turnover among PSWs in LTC. This turnover is problematic because it increases costs for the facility and may lower quality of care for residents (Bostick, 2006; Castle & Engberg, 2005; Lerner, Johantgen, Trinkoff, Storr, & Han, 2014).

Among PSWs working in LTC, personal characteristics, extrinsic work factors, facility characteristics, and local economic factors have all been proposed as inter-related contributors to job satisfaction, intention to turn over

(planning to leave/quit one's current job), and actual turnover (Castle & Engberg, 2006; Castle, Engberg, Anderson, & Men, 2007; Choi & Johantgen, 2012; Decker, Harris-Kojetin, & Bercovitz, 2009; Dill, Morgan, Marshall, & Pruchno, 2013; Riggs & Rantz, 2001; Rosen, Stiehl, Mittal, & Leana, 2011; Stearns & D'Arcy, 2008). In testing these associations, surveys of PSWs working in this setting have shown supportive supervision (measures of positive, respectful, and helpful interactions with one's supervisor) is associated with both higher job satisfaction and lower intent to turn over (Bishop, Squillace, Meagher, Anderson, & Wiener, 2009; Bishop et al., 2008; Choi & Johantgen, 2012; Decker et al., 2009; Parsons, Simmons, Penn, & Furlough, 2003; Stearns & D'Arcy, 2008). In fact, the effect of supportive supervision on turnover is usually conceptualized as being mediated, either partially (Choi & Johantgen, 2012; Stearns & D'Arcy, 2008) or fully (Decker et al., 2009; Dill et al., 2013), by job satisfaction (although mediation is not typically formally tested). Given nurses usually supervise PSWs in LTC homes, these results suggest nurses can influence resident outcomes not only through their own clinical skills but also through their supervision of PSWs (McGilton, Bowers, McKenzie-Green, Boscart, & Brown, 2009; McGilton, Chu, Shaw, Wong, & Ploeg, 2016).

In a more general context of success in work and life, there is also evidence for the influence of happiness; reviews have concluded that happiness both precedes and leads to more positive perceptions of others and better workplace outcomes (Boehm & Lyubomirsky, 2008; Lyubomirsky, King, & Diener, 2005), thus implying that happiness could influence both (self-reported) supervisory support and intent to turn over. Consequently, possibly acting as a confounder, happiness may explain part of the apparent association between supervisory support and intent to turn over. In fact, in studies of PSWs working in similar settings, others have acknowledged the likely effect of "personal characteristics" on both perceived supervisory support and intent to turn over (Dill et al., 2013) and noted the possible influence of positive affect on job satisfaction and turnover (Riggs & Rantz, 2001). There is also evidence that measures of stress, distress, and mental health are associated with satisfaction with one's supervisor (Noelker, Ejaz, Menne, & Jones, 2006) and job (Wallin, Jakobsson, & Edberg, 2012) and intent to turn over (Rosen et al., 2011; Zhang, Punnett, Gore, & CPH-NEW Research Team, 2014). Nevertheless, happiness has not been incorporated into empirical studies assessing the association between supervisory support and intent to turn over among PSWs working in LTC.

Addressing supervisory support as a means of reducing PSW turnover is premised on the idea that the relationship is causal; a better understanding of this relationship, including the mechanism(s) through which it operates (i.e., mediation) and ruling out other explanations (i.e., confounding) will help to rationalize, develop, and target interventions aimed at enhancing organizational effectiveness and improving outcomes for LTC home residents and staff. As such, this analysis examined the association between

supervisory support and intent to turn over among PSWs working in LTC homes in Ontario, Canada, by assessing mediation through job satisfaction and the potential confounding effect of happiness (see Figure 1).

Design and Methods

This was a secondary analysis of a cross-sectional survey of staff working in LTC homes in Ontario, Canada. All LTC homes in the province were asked to participate. Of the 636 LTC homes contacted, 418 (65.7%) agreed to participate. Personnel at the participating LTC homes were asked to distribute the survey to part-time and full-time staff in all job categories between either November and December 2011 or January and February 2012. Staff were asked to return their completed surveys directly to a third party for data entry using a postage paid envelope. Overall, 15,301 staff returned surveys (response rate 28.4%). This analysis is restricted to respondents who indicated their current position within the LTC home was as a PSW and for whom complete data were available ($n = 5,513$ PSWs in 398 LTC homes).

Research Ethics Board approval was obtained from the Toronto Rehabilitation Institute—University Health Network and the University of Toronto.

Measures

Intent to turn over was assessed with a single question, asking respondents to rate their level of agreement with the statement: "I will likely look for a new job with another organization within the next 12 months" offering responses of very unlikely, unlikely, likely, and very likely. For the analysis, the responses were categorized as yes (likely or very likely) or no (unlikely or very unlikely).

Supervisory support was assessed with 10 items asking respondents to rate their feelings about the supervisor they work with most often, using a shortened version of a 15-item Supervisory Support Scale (McGilton, 2010). The score was the mean of the items, scored from one to five (higher score indicating a more supportive supervisor), where the respondent answered at least five questions. Job satisfaction was assessed with a single question, asking respondents: "overall, rate how satisfied you are with your current job?" with ratings of 1 (lowest or worst) to 10 (highest or best). Overall happiness was assessed with a single question, asking respondents: "in general, how would you rate your overall happiness?" offering responses of

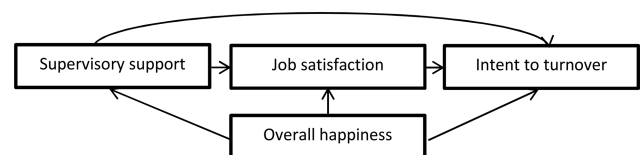


Figure 1. A conceptual model for the association between supervisory support and intent to turnover, partial mediation by job satisfaction, and potential influence of happiness.

very unhappy, unhappy, neither happy nor unhappy, happy, and very happy. For the analysis, the responses were categorized as unhappy, neither happy nor unhappy, or happy.

Table 1 summarizes individual-level categorical variables (defined from survey responses) and LTC home-level characteristics (provided by the Ministry of Health and Long-Term Care provided): age in years (<30, 30–39, 40–49, 50–59, 60+); sex (male or female); highest level of education completed

(high school or less, college diploma, university (undergraduate degree or higher)); job status (full time or part-time/casual); usual shifts worked (weekday days or other); number of years working in current LTC home; LTC home size (number of beds categorized as 64 or fewer, 65–128, 129–192, and 193 or more); LTC home ownership (municipal, charitable, nursing home not-for-profit and nursing home for-profit); and LTC home location (rural or non-rural).

Table 1. Personal Support Worker Characteristics and Intent to Turnover, Survey of Long-term Care Staff in Ontario, Canada

Variable	Total		Intent to turnover = yes	
	n_{total}	% _{column}	$n_{turnover}$	% _{turnover} ($n_{turnover}/n_{total}$)
Total	5,513	100.0	971	17.6
Individual-level characteristics				
Age (in years)				
Under 30	569	10.3	144	25.3
30–39	1,046	19.0	237	22.7
40–49	1,730	31.4	323	18.7
50–59	1,745	31.7	239	13.7
60 and over	423	7.7	28	6.6
Sex				
Female	5,143	93.3	879	17.1
Male	370	6.7	92	24.9
Highest level of education completed				
High school or less	1,272	23.1	175	13.8
College diploma	3,888	70.5	701	18.0
University (undergraduate degree or higher)	353	6.4	95	26.9
Job status				
Full time	2,787	50.6	401	14.4
Part time or Casual	2,726	49.5	570	20.9
Usual shifts worked				
Weekday days	2,644	48.0	433	16.4
Other	2,869	52.0	538	18.8
Number of years working in current LTC home				
Less than one year	387	7.0	94	24.3
1–2 years	585	10.6	136	23.2
3–4 years	739	13.4	140	18.9
5 or more years	3,802	69.0	601	15.8
Overall happiness				
Very unhappy or unhappy	510	9.3	222	43.5
Neither happy nor unhappy	1,104	20.0	332	30.1
Happy or very happy	3,899	70.7	417	10.7
Long-term care (LTC) home-level characteristics				
Size (number of beds)				
64 or fewer	660	12.0	119	18.0
65–128	1,873	34.0	336	17.9
129–192	1,902	34.5	317	16.7
193 or more	1,078	19.6	199	18.5
Ownership				
Municipal	1,234	22.4	179	14.5
Charitable	556	10.1	88	15.8
Nursing, for profit	2,734	49.6	506	18.5
Nursing, not-for-profit	989	17.9	198	20.0
Location				
Rural	1,113	20.2	190	17.1
Non-rural	4,400	79.8	781	17.8

Table 2 summarizes individual-level quantitative variables (defined from survey responses) satisfaction with pay (assessed with a single question, asking respondents: “rate how fairly you are paid” with ratings of 1 (lowest) to 10 (highest)) and self-reported perceptions of work/LTC home characteristics (respondents rated their level of agreement, on a five-point scale, to a list of statements): leadership practices (11 statements about the LTC home administrator/senior management team); quality improvement (six statements about how quality improvement is currently occurring within the LTC home); involvement in planning and practice (six statements relating to staff involvement in organizational planning and practice); communication (12 statements about communication within the LTC home, including accuracy and timeliness of information); and resident care (five statements about resident-centred care within the LTC home; Wodchis, Burns, & Chan, 2015).

Statistical Methods

To assess whether the association between supervisory support and intent to turn over was mediated by job satisfaction, a series of regression models were constructed (Baron & Kenny, 1986): MODEL 1) supervisory support (exposure) and job satisfaction (outcome) using linear regression; MODEL 2) supervisory support (exposure) and intent to turn over (outcome) using logistic regression; and, MODEL 3) supervisory support and job satisfaction (exposures) and intent to turn over (outcome) using logistic regression. To establish mediation, supervisory support must be associated with job satisfaction and intent to turn over (in MODELS 1 and 2, respectively) and job satisfaction must be associated with intent to turn over (in MODEL 3). Further, MODEL 3 establishes whether the association is partially or fully mediated by job satisfaction (compared to MODEL 2), the parameter estimate for supervisory support would be diminished or disappear, respectively). To address potential confounding by happiness, a stratified analysis was carried out, whereby each of the models was estimated

in each of three happiness categories. If confounding was present, the stratum-specific estimates would be different from the overall estimate but similar to each other (Patten, 2015). All models used hierarchical regression analyses, accounting for clustering of PSWs within LTC homes, first unadjusted then adjusted for the individual- and LTC home-level covariates. All analyses were carried out using Stata (StataCorp, 2015).

Results

The PSW respondents and intent to turn over are described in Table 1 (which also shows that although those who reported being unhappy represented a small proportion of the sample [9.3%], they had the highest intent to turn over [43.5%]), and Table 2 (which also shows that mean supervisory support, job satisfaction, satisfaction with pay, and self-reported work/LTC home characteristics were all lower among PSWs with intent to turn over, when compared to the overall sample). The results in Table 3 show the models' parameter estimates and support the hypothesis of partial mediation overall and among both the unhappy and happy subsets. More specifically, in the full sample and in the unhappy and happy subsets, there are statistically significant associations between supervisory support and job satisfaction (MODEL 1) and supervisory support and intent to turn over (MODEL 2). Further, in MODEL 3, job satisfaction and supervisory support are both associated with intent to turn over, although the parameter estimate for supervisory support is diminished (compared to that in MODEL 2). Although the parameter estimates from the models in the unhappy and happy subsets were similar to each other (and the overall estimates), the parameter estimates for the neither happy nor unhappy subset showed the associations between supervisory support and intent to turn over were not statistically significant (in either MODELS 2 or 3). Instead of confounding, this suggests effect modification, the effect of supervisory support on intent to turn over may differ in the happiness strata. Covariate-adjusted

Table 2. Personal Support Worker Characteristics and Intent to Turnover, Survey of Long-Term Care Staff in Ontario, Canada

Variable	Total (<i>n</i> = 5,513)		Intent to turnover = yes (<i>n</i> = 971)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Supervisory support	3.57	0.94	3.13	1.01
Job satisfaction	7.22	1.36	6.34	1.35
Satisfaction with pay	6.24	2.71	5.26	2.79
Self-reported work/LTC home characteristics				
Leadership practices	3.04	1.01	2.58	0.96
Quality improvement	3.42	0.87	3.06	0.91
Involvement in planning and practice	2.87	1.01	2.44	1.01
Communication	3.22	0.57	2.98	0.56
Resident care	3.65	0.83	3.32	0.88

Note: *SD* = standard deviation.

Table 3. Results of Multilevel Model Analyses

Model/stratum	Parameter estimates (unadjusted)		Parameter estimates (adjusted ^a)	
	Coefficient	95% CI	Coefficient	95% CI
Overall (<i>n</i> = 5,513)				
MODEL 1: SS → Job satisfaction	0.788	0.756, 0.820	0.201	0.169, 0.233
MODEL 2: SS → ITT	-0.617	-0.696, -0.538	-0.240	-0.346, -0.134
MODEL 3: SS	-0.241	-0.334, -0.148	-0.155	-0.264, -0.046
+ job satisfaction → ITT	-0.535	-0.603, -0.466	-0.490	-0.581, -0.398
Stratified analysis: where unhappy or very unhappy (<i>n</i> = 510)				
MODEL 1: SS → Job satisfaction	0.714	0.608, 0.819	0.154	0.059, 0.247
MODEL 2: SS → ITT	-0.597	-0.798, -0.395	-0.302	-0.556, -0.049
MODEL 3: SS	-0.322	-0.542, -0.102	-0.264	-0.525, -0.001
+ job satisfaction → ITT	-0.452	-0.623, -0.280	-0.489	-0.743, -0.236
Stratified analysis: where neither happy nor unhappy (<i>n</i> = 1104)				
MODEL 1: SS → job satisfaction	0.467	0.398, 0.535	0.178	0.109, 0.247
MODEL 2: SS → ITT	-0.114	-0.268, 0.040	0.001	-0.195, 0.197
MODEL 3: SS	0.012	-0.157, 0.180	0.040	-0.160, 0.240
+ job satisfaction → ITT	-0.277	-0.414, -0.139	-0.214	-0.387, -0.041
Stratified analysis: where happy or very happy (<i>n</i> = 3,899)				
MODEL 1: SS → job satisfaction	0.707	0.670, 0.745	0.181	0.142, 0.218
MODEL 2: SS → ITT	-0.513	-0.630, -0.396	-0.245	-0.405, -0.084
MODEL 3: SS	-0.223	-0.360, -0.085	-0.174	-0.338, -0.009
+ job satisfaction → ITT	-0.442	-0.543, -0.341	-0.449	-0.585, -0.314

Note: CI = confidence interval; ITT = intent to turnover; SS = supervisory support.

^aModels adjusted for: individual-level variables (age, sex, highest level of education completed, job status, usual shifts worked, number of years working in current LTC home, satisfaction with pay, leadership practices, quality improvement, involvement in planning and practice, communication and resident care) and home-level variables (number of beds, ownership, and location).

models provided similar results, though parameter estimates were generally attenuated.

Discussion

This analysis reinforces the previously reported association between supportive supervision and intent to turnover among PSWs working in LTC homes (Bishop et al., 2008; Choi & Johantgen, 2012; Decker et al., 2009; Parsons et al., 2003; Stearns & D'Arcy, 2008). In addition, the results provide evidence that the influence of supportive supervision is partially mediated by job satisfaction, suggesting there are other mechanisms through which the association may operate (e.g., sense of obligation to one's supervisor; Radford, Shacklock, & Bradley, 2015). The analysis also reveals happiness may be an effect modifier for the association between supervisory support and intent to turn over; more specifically, unlike their happy or unhappy counterparts, supervisory support was not associated with intent to turn over among those who described themselves as neither happy nor unhappy. Explanations for this finding are speculative, but may relate to the overlap between difficulties identifying and describing one's emotions and tendencies towards cold/distant interpersonal relationships (Vanheule, Desmet, Meganck, & Bogaerts, 2007).

This study used a large survey of PSWs from LTC homes across Ontario, Canada. However, as with many other studies

in similar populations of health workers, the response rate was low and may have introduced selection bias. Further, it was a cross-sectional study and, therefore, two key limitations must be acknowledged. First, although temporal relationships were hypothesized, they could not be established. Second, prevalent intent to turn over captures both incidence (i.e., deciding to look for another job) as well as duration (i.e., staying in a job despite having decided to look for another one); the data cannot disentangle the effect of supportive supervision on each.

To address the inherent limitations of cross-sectional data, studies have prospectively collected data on actual job turnover among PSWs (Castle et al., 2007; Dill et al., 2013; Rosen et al., 2011). In the two studies that included variables on supervisory support, in contrast to cross-sectional data (and intent to turn over outcomes), both found no association with turnover. However, in one (Rosen et al., 2011), the multivariable model simultaneously adjusted for job satisfaction, which may equally support the proposition that the effect of supportive supervision is mediated entirely by job satisfaction (Baron & Kenny, 1986). To address these inconsistencies, future research on this topic requires prospective data collection with good follow-up (addressing potential selection bias), analyses to account for potential mediation, information on reasons for leaving (Dill et al., 2013), including involuntary turnover (Castle et al., 2007), and linkage to facility-level information (Rosen et al., 2011). While the results did not support the hypothesis of

happiness as a confounder, given the broader literature and apparent association between happiness and intent to turn over, this variable should be included in future research.

Taken together, this analysis reiterates the importance of supportive supervision for PSWs working in LTC homes. Supervisors have a critical role in shaping perceptions among PSWs of how they are valued within their workplaces (Bowers et al., 2003). Given nurses provide the majority of PSW supervision, it emphasizes the need to equip nurses with supervisory competencies and skills as a component of larger institutional or jurisdictional initiatives to reduce PSW turnover in LTC (McGilton et al., 2016). In doing so, this may positively influence quality of life and care for LTC residents as well as reduce LTC costs and improve employment and working conditions for PSWs. Still, addressing supervision alone and in isolation from other organization-wide changes and strategies to address PSW turnover will likely be inadequate (Riggs & Rantz, 2001).

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