Health Sciences Faculty Publications   Health Sciences

2007

Predictors of Job Satisfaction in Long-Term Facilities

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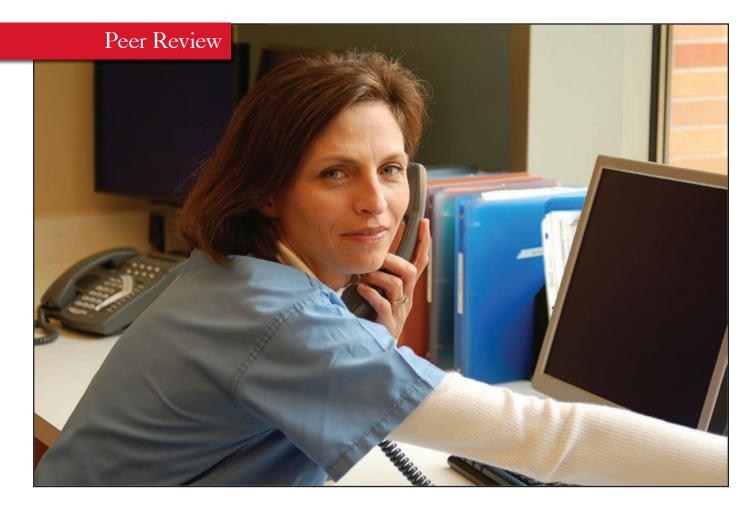*Wilfrid Laurier University*, dguthrie@wlu.ca

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Predictors of job satisfaction in long-term care facilities

Abstract

Purpose

The ability of health care organizations to provide quality care depends on its employees. Employers concerned about improving job satisfaction should consider employees' perceptions of their jobs. The purpose of this study was to identify the best predictors of job satisfaction within long-term care (LTC) facilities.

Design and Methods

A cross-sectional, multi-site, quality of work life (QWL) survey was completed at three independent not-for-profit LTC facilities in three communities in Ontario, Canada. 1,329 full, part and casual time non-physician staff on active payroll were eligible to participate. A 45-item, self-administered questionnaire collected information on: co-worker and supervisor support; teamwork and communication; job demands and decision authority; characteristics of the organization; patient/resident care; compensation and benefits; staff training and development; overall impressions of the organization; and socio-demographics.

Results

The eight most important predictors of job satisfaction among LTC staff were: belief that the organization carried out its mission statement; good supervisor social support; being clear about job responsibilities; not being asked to do an excessive amount of work; job classification; good support for training and development; good teamwork; and being satisfied that staff contributions are recognized.

Implications

The findings show that job satisfaction is a multi-dimensional construct. Efforts to improve the quality of work life and job satisfaction, and ultimately the quality of care will therefore require multiple strategies. The importance to the organization of achieving its mission, expectations and employees' work responsibilities must be clearly communicated; and good development support and appropriate recognition of contributions need to be provided.

Introduction

Quality care is of paramount importance to health care organizations and the ability to provide such care depends on its employees. Employees' perception of their jobs, or QWL, is important to assess because it plays a critical role in decisions to enter, stay with, or leave an organization. Although there is no commonly accepted definition of QWL (International Labour Office, 1989) in health care organizations, it has been described

as referring to the strengths and weaknesses in the total work environment (Knox & Irving, 1997). Previous studies have linked QWL with job satisfaction (Blegen, 1993) and although job satisfaction is not QWL, the perception of QWL is often assessed using job satisfaction surveys.

Previous research has shown that low job satisfaction, associated with job turnover among health care providers (Curry, Wakefield, Price, Mueller, & McCloskey, 1985; Irvine & Evans, 1995; Yoder, 1995), may affect the quality of service and organizational commitment (Alpander ,1990; Beall, Baumhover, Gillum, & Wells, 1994; Joseph & Deshpande, 1997; MacRobert, Schmele, & Henson, 1993; van de Looij & Benders, 1995) and may be a contributing factor associated with shortages of health care providers (Goodell & Van Ess, 1994). A meta-analysis of 48 studies looking at job satisfaction in over 15,000 nurses found that job satisfaction was associated with reduced work stress, organizational commitment, communication with supervisors, autonomy, employee recognition, fairness, locus of control, years of experience, education, and professionalism (Blegen, 1993).

The literature from the United States suggests that turnover is an important problem in LTC facilities. In a review of seven studies, nurses' aides were shown to have turnover rates ranging from 37-43%, Registered Nurses (RNs) 19-55%, and Licensed Practical Nurses 19-61% (Cohen-Mansfield, 1997). Factors found to be associated with turnover in LTC include working hours, advancement opportunities, communication, role clarity, autonomy, participation in decision-making, supervision, and management keeping employees informed (Cohen-Mansfield, 1997; Parsons, Simmons, Penn, & Furlough, 2003). High staff turnover results in high recruitment and training costs, as well as requiring close supervision of new staff and overtime because of staff shortages (Banaszak-Holl & Hines, 1996; Cohen-Mansfield, 1997; Fitzpatrick, 2002). High turnover also affects employee morale, staff integration, group functioning, and performance. As a result, quality of care provided to residents decreases, as does care continuity (Cohen-Mansfield, 1997; Fitzpatrick, 2002). As staff turnover increases, overall job satisfaction decreases (Parsons et al., 2003).

Another United States study of 110 RNs employed in seven urban LTC facilities (four for-profit, three not-for-profit) found that nurses who were involved in continuing education activities had greater job satisfaction (Robertson, Higgins, Rozmus, & Robinson, 1999). Focus groups of 17 Australian nurses and nursing assistants found that job satisfaction was associated with workplace flexibility, residents, working with a team environment and dedication to the service of optimal resident care (Moyle, Skinner, Rowe, & Gork, 2003). Findings from another Australian study of 983 staff from 70 LTC facilities found that job satisfaction was related to workload, team spirit, and professional support (Chou, Boldy, & Lee, 2002).

Research done in Ontario, Canada, suggests that control over nursing practice is important for RNs' job satisfaction for those working in LTC units of community or teaching hospitals (McGilton & Pringle, 1999). However, to date there has been little research done on quality of work life in Canadian LTC facilities, particularly from the perspectives of those working in these facilities.

Within Ontario there are approximately 550 LTC facilities providing care to over 70,000 residents. These facilities provide care and services to persons whose needs cannot be met in the community. Ontario's LTC facilities are designed for people who need on-site 24-hour nursing services, daily personal assistance, or are at risk of harm in their current homes. LTC facility services include: nursing and personal care; treatment and medication

administration; special diets; room and board; laundry services; social/recreational programs; therapy services; spiritual care and counselling. LTC facilities are subject to provincial standards with respect to care, services and resident fees. In Ontario, the provincial government pays nursing care and personal care costs while residents pay for their accommodation costs. Historically known as nursing homes, or municipal or charitable homes for the aged, LTC facilities include both for profit and not for profit facilities (Ontario Ministry of Health and Long-Term Care, 2004, 2005).

This paper presents the results from a QWL survey conducted in three LTC facilities in Ontario, Canada and identifies the best predictors of job satisfaction for these employees.

Design and Methods

Setting
The settings for this study included three independent LTC facilities located in three communities in South Central Ontario. Two of these facilities are member organizations of the St. Joseph's Health System (SJHS) and the third has an affiliation with SJHS. All three organizations are not-for-profit LTC facilities. At the time of the study (2003), the three organizations employed a total of 1,329 full, part and causal time (non-physician) staff.

Questionnaire Development
The questionnaire used in this study was based on an instrument developed for a QWL survey completed in 2000 (Krueger et al., 2002). The original 65-item QWL survey contained themes identified through a literature review. In 2002, the questionnaire was reviewed and modified to produce a more concise instrument. This refinement resulted in a 45-item questionnaire that consists of nine sections (see below) representing topic areas considered relevant to assessing QWL.

The *Co-Worker and Supervisor Support* section included 10 closed-ended questions on supervisor support and co-worker support. Both scales were originally adapted from Woodward et al. (1999).

The *Teamwork and Communication* section included nine closed-ended questions. For determining teamwork, a 7-item scale was adapted from Taylor and Bowers (1972) to measure the extent to which one's work unit co-ordinates efforts, solves problems and works together effectively. A 2-item scale developed for this project measured how communication was practiced within the organization.

The *Job Demands and Decision Authority* section was composed of 12 closed-ended questions.

It included 1-item from Brosnan and Johnson (1980) to measure clarity regarding responsibilities. There was also a 9-item scale adapted from Karasek et al. (1998) to measure the extent to which respondents' jobs gave them autonomy or decision-making latitude, and two items to measure the demands of one's work.

The *Characteristics of Your Organization* section included six closed-ended questions. This section was adapted from Woodward et al (1999) and included a 4-item scale that inquired about the extent to which the organization encouraged the best efforts from staff, and how employees were treated.

Two additional questions examined the extent to which staff were kept informed, and organizational recognition of employee contributions.

The *Patient/Resident Care* section included one closed-ended question.

This question was developed for this project to measure employees' perceptions of the quality of care provided for patients

and residents at their respective organizations.

The *Compensation and Benefits* section included two closed-ended questions. These questions were developed for this project to determine employee satisfaction concerning employee benefits and level of pay.

The *Staff Training and Development* section included one closed-ended question. This question measured the extent to which each organization supports its staff in training and development opportunities.

The *Overall Impressions of Your Organization* section include three closed-ended questions to assess staff's impressions of overall satisfaction with their organization.

The *Socio-Demographic Information* section included four closed-ended questions to collect information on sex, job status (full-time, part-time, casual, temporary), length of employment, and job classification.

Within each of the first eight sections, employees were asked to circle the response that best described their feelings using 5-point Likert scales. The last page was left blank to give employees the opportunity to add written comments in the questionnaire.

Survey Procedure

The facility administrators and researchers decided that the implementation of the survey would be customized to best suit each of the organizations. Although the procedures were not identical, all of the sites provided as a minimum: advance written notification of the survey to all staff (eligibility was based on whether the staff member was active on the organization's payroll at the time of the study and was not a physician); access to questionnaires and return envelopes for all staff; one or more follow-up reminder notices; and sealed drop off boxes for completed questionnaires. Two of the facilities also provided financial incentives (staff who returned a questionnaire would receive a coupon to be entered into a draw). Follow-up attempts to enhance recruitment were limited to general reminder notices to all staff.

Analysis

The quantitative data were imported directly into SPSS (version 12.0.0 for Windows, SPSS, Inc., Chicago, 2003). Prior to data analysis, most of the survey questions were re-coded. Questions which asked participants to select one response within a 5-point scale (never to always; very dissatisfied to very satisfied; very poor to very good; no, definitely not; yes, definitely) were collapsed into two categories. For example, for the response scale (1 = very dissatisfied, 2 = dissatisfied, 3 = not sure, 4 = satisfied, 5 = very satisfied), those that indicated they were either satisfied or very satisfied were re-coded as "satisfied" while all others were re-coded "not satisfied." In several instances, it was appropriate to combine two or more of the questions into a composite scale score. In total, there were eight scale scores (supervisor social support; co-worker support; teamwork; communication; decision authority, skill discretion; decision latitude (combination of decision authority + skill discretion scale scores); and organization/staff relation). On rare occasions where a participant failed to answer one or more of the questions that made up a scale score, missing values were replaced with mean values for that organization. Scale scores were categorized into meaningful dichotomous categories prior to analysis (e.g. satisfied or not satisfied).

For the purpose of this study, QWL was operationally defined using the global question "Overall, how satisfied are you with your job?" Job satisfaction was rated from very dissatisfied to very satisfied using a 5-point scale (very dissatisfied, dissatisfied, not sure, satisfied, very satisfied). Those that indicated they were either satisfied or very satisfied were considered to be "satisfied" with their jobs. All others were considered "not satisfied" with their jobs.

Prior to analysis, study researchers reached a consensus on which survey questions to include as potential predictors of job satisfaction. In total, there were eight scale scores and 14 questions that were rationalized *a priori* as potential predictors of job satisfaction. Chi-square analyses were used to determine which of the variables were statistically associated with job satisfaction. Odds ratios, 95% confidence intervals for the odds ratios, and p-values were calculated for each potential predictor of job satisfaction.

Logistic regression analysis was then used to identify the best predictors of job satisfaction after adjusting for all other variables in the final model. Only variables that had a statistically significant association with job satisfaction were included in these analyses. The final results are reported as adjusted odds ratios (OR) and 95% confidence intervals. The goodness of fit of the logistic regression model was assessed using the rho-squared statistic (Wrigley, 1985). A rho-square value between 0.20 and 0.40 suggests a very good fit of the model. A probability level of <0.05 was used to determine statistical significance. This study received full ethics approval from the Research Ethics Board, St. Joseph's Healthcare, Hamilton.

Results

Respondent Participation Rate

Of the total 1,329 staff, 635 (47.8%) returned a completed questionnaire. Site-specific response rates varied from 42.9% to 57.7% *(Table 1)*. In an attempt to assess the representativeness

Table 1. Response rates and accuracy of responses by site.

Site	Number of Staff *	Number of Respondents	Response Rate	Accuracy** (plus minus 19 times out of 20)
Site 1	408	183	44.9%	7.2%
Site 2	445	248	57.7%	6.2 %
Site 3	476	204	42.9%	6.9%
Total	1329	635	47.8%	3.9%

* Excludes physicians   ** Standard error at 95% confidence interval on adechotomous variable with a 50/50 distribution.

Table 2. Logistic regression model presenting the best predictors of job stisfaction for long-term care facility staff (n=577[a]).

Predictors of Job Satisfaction [b]	Adjusted Odds Ratio [c]	95% Confidence Interval
Believes that organization carries out its Mission Statement:		
No/No answer	1.00	-
Yes	4.27	(2.45, 7.44)
Supervisor social support scale score: [d]		
3 to 11	1.00	-
12 -15	3.94	(2.01, 7.75)
Clear about job responsibilities:		
Never/Seldom/Sometimes	1.00	-
Often/Always	11.78	(4.84, 28.08)
Asked to do an excessive amount of work:		
Often/Always	1.00	-
Never/Seldom/Sometimes	3.74	(2.11, 6.62)
Current job classification:		
RN/ RPN	1.00	-
All other staff [e]	3.04	(1.59, 5.70)
Organization's overall support for training and development:		
Very poor/Poor/Average	1.00	-
Good/Very good	2.16	(1.08, 4.32)
Teamwork scale score: [f]		
7 to 27	1.00	-
28 to 35	2.67	(1.24, 5.77)
How satisfied with organization's recognition of employee contributions:		
Very dissatisfied/Dissatisfied/NS	1.00	-
Satisfied/Very Satisfied	2.48	(1.14, 5.39)

Final Logistic Regression Model Statistics:
Rho-square = 0.40 (pseudo R^2, Values between 0.2 and 0.4 suggest a very good fit); Cox & Snell R-square = .363; Nagelkerke R-square = .543 (i.e. between 36.3% and 54.3% of variance is explained by this model); Hosmer and lemeshow Goodness-of-fit test = 0.411 (values greater than 0.25 indicate good fit) 85.8% correctly classified

[a] Complete data was available for 577 (91.6%) of the 630 staff who responded to the satisfaction question.

[b] The site of the LTC facility was forced into the final model to adjust for facility differences.

[c] Odds ratios for categorical variables represent comparisons with the referent group (OR=1.00) after adjustment for all other variables in the model. An odds ratio greater than one indicates increased likelihood for job satisfaction. For example, staff that believe their organization carries out its Mission Statement are 4.97 times more likely to be satisfied with their jobs than those who do not (after adjusting for all other variables in the model).

[d] Composite score from three questions about supervisor support. A score of 12 to 15 indicates good supervisor social support.

[e] Includes: health care aides/personal support workers; service staff (engineering, environmental, housekeeping, food services, materials management, other service staff); clinical (occupational therapy, pharmacy, physiotherapy, psychology, social work, speech & audiology, activation staff); support services (accounting, administrative/clerical, health records/transcription, reception, public relations, occupational health, other support services); unit managers; technical (information services); and other.

[f] Composite score from seven questions about teamwork. A score of 28 to 35 indicates good teamwork.

of respondents, a comparison was made of available socio-de-mographic information between respondents and all staff within each of the organizations. Across all three sites, respondents were more likely to be full-time employees compared to part-time, casual or temporary employees. There was also a greater tendency for females and longer-term employees to participate in the survey.

A statistical estimating procedure was also used to assess how accurately respondents represent staff at each of sites and all sites combined (Kalton, 1983). This calculation suggests that the combined findings were accurate plus or minus 3.9%, 19 times out of 20 *(Table 1)*.

Potential Predictors of Job Satisfaction

Of the 22 variables (8-scale score and 14 questions) hypoth-esized *a priori* to be predictors of job satisfaction, 20 were found to be statistically associated with job satisfaction. The two non-significant variables were staff sex and job status (i.e. full-time, part-time, causal or temporary).

Best Predictors of Job Satisfaction

Results from the logistic regression analysis (Table 2) re-vealed the eight most important predictors of job satisfaction for staff at LTC facilities to be: 1) belief the organization carries out its mission statement (OR 4.27, 95% CI 2.45 to 7.44); 2) having good supervisor social support (OR 3.94, 95% CI 2.01 to 7.75); 3) being clear about job responsibilities (OR 11.78, 95% CI 4.84, 28.68); 4) less frequently (never/seldom/sometimes) being asked to do an excessive amount of work (OR 3.74, 95% CI 2.11 to 6.62); 5) not being a registered nursing staff (i.e. not a RN or RPN) (OR 3.04, 95% CI 1.59 to 5.79); 6) having good organi-zational support for staff training and development opportunities (OR 2.16, 95% CI 1.24 to 5.77); 7) having good teamwork (OR 2.67, 95% CI 1.24, 5.77); and 8) being satisfied with the organi-zation's recognition of employee contributions (OR 2.48, 95% CI 1.14 to 5.39). Each of these odds ratios was simultaneously adjusted for all other variables in the final logistic regression model, including the facility where staff worked. For example, staff who indicated they had good supervisor social support were 3.94 times more likely to be satisfied with their jobs than those who did not (after taking into account all other variables in the model). The final logistic regression model statistics *(Table 2)* are indicative of this being a very good fitting model.

Discussion

The results of this survey are intended to assist decision-makers in identifying key workplace issues, as perceived by employees, and in developing strategies to address and improve the quality of working conditions for staff working in LTC facili-ties. This research represents one step of an ongoing process to ensure better QWL for LTC facility employees. Decision-makers at each of the organizations that were surveyed are currently us-ing these findings to improve employee QWL.

There are several positive attributes of this study. First, with 635 completed interviews, we believe this study is the largest of its kind to investigate job satisfaction among LTC facility employees in Canada. Second, the survey included staff from three independent not-for-profit LTC facilities located in three communities in South Central Ontario. This diversity of facilities

should help improve the generalizability of the findings compared with the findings of a single facility. Third, the instrument used in this study was a refinement of an instrument used in a previ-ous study. Fourth, the questionnaire was made available to all LTC staff within each of the participating facilities. Although the response rates were modest, the findings: appear to be consistent with what we expected *a priori* (having surveyed one of these facilities once before and/or having close working knowledge about these organizations and staff); appear consistent with the published literature on job satisfaction within the health care sector; and were judged credible by management and staff at each of the sites. The statistical estimating procedure we used to assess how accurately respondents represent staff at each of the organizations also suggests that our findings were fairly representative of staff views.

The findings show that job satisfaction among LTC staff is a multidimensional construct: eight important predictors of job satisfaction were identified. In their efforts to improve the qual-ity of working conditions and job satisfaction, and ultimately the quality of care, policy and decision-makers will therefore require a multi-component strategy. One component is to clearly communicate to employees the importance of achieving the or-ganization's mission statement. Corresponding expectations and employees' work responsibilities must then be clearly defined. Another component is to provide appropriate employee training and continuing support for skills development. A final component is to provide appropriate and ongoing visible recognition of em-ployee contributions made towards achieving the organization's overall mission.

Conclusion

The results of this research show that job satisfaction is a multidimensional construct and is a product of a comprehensive evaluation of one's workplace. This report provides valuable in-formation about how employees in LTC facilities view their work environment. Given that this research was done in co-operation with, and input from, administrators from these facilities, the acceptability and utility of these findings should be enhanced.

The results of this survey can also be used as baseline measures against which the findings of future job satisfaction surveys can be compared. Such comparisons place this type of research within a continuous quality improvement framework. These findings, however, should also be of relevance and value to employees, researchers, evaluators, human resource planners and administrators of other LTC facilities.

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News

Respiratory infections linked to increased heart attacks and strokes

A new study, which appears in the online edition of the *European Heart Journal*, has found strong evidence that recent respiratory infections increase the risk of heart attacks and strokes, both of which are more common in the winter.

It has for some years been recognised, using information from death certificates, that there is an excess of deaths from coronary heart disease (CHD) and stroke during the winter months, over and above those directly attributable to deaths from respiratory disease. More direct evidence has been necessary.

The authors of this study applied to the British Heart Foundation for funding to enable them to undertake further research to confirm or refute the findings of previous studies based on information from general practice which showed that respiratory infections were a strong risk factor for stroke.

The group, led by Tim Clayton and Tom Meade of the London School of Hygiene & Tropical Medicine's Medical Statistics Unit, carried out a clinical case-control study in a general practice database, the IMS Disease Analyzer Mediplus database (IMS), which is used widely in epidemiological research. It contains details of some two million patients registered with approximately 500 GPs.

They found a doubling of risk of both heart attack and stroke in the week following respiratory infection, which reduced over time so that there was little excess risk beyond one month. Risk did not depend on age or gender and for heart attack was seen at every level of preceding risk, whether this had been low or high. There was also some evidence of an association between recent urinary tract infection and subsequent heart attack or stroke.