Nurse turnover: the mediating role of burnout

MICHAEL P. LEITER PhD 1 and CHRISTINA MASLACH PhD 2

1Director, Centre for Organizational Research and Development, Acadia University, Wolfville, NS, Canada and
2Professor of Psychology and Vice Provost of Teaching and Learning, Department of Psychology, University of California, Berkeley, CA, USA

Introduction

The shortage of nurses in post-industrial countries has been a major problem in recent years, and finding solutions has become an increasingly urgent priority (O’Brien-Pallas et al. 2001, Ryten 1997, Sochalski 2001, Canadian Nurses Association 1997). One approach to this problem has been to focus on recruitment, and to develop educational initiatives that will bring more people into the nursing profession. Another approach is to focus on retention, and to ensure that nurses experience fulfilling and sustainable careers. A better understanding of what factors support a commitment to a nursing career could inform both policies and workplace practices so that nursing would attract and retain many more dedicated employees.

Prior research on nurses has identified a consistent negative relationship of job satisfaction to job turnover, indicating that dissatisfaction prompts nurses to consider career changes (Irvine & Evans 1995, Larrabee et al. 2003, Andrews & Dziegielewski 2005). Dissatisfaction is predictive of both turnover intentions, which indicate that one is disengaging from the job and seriously considering other options, and actual turnover behavior, which is the ultimate withdrawal from a job. What are the critical aspects of a nurse’s work...
experience, which influence the level of satisfaction and the desire to either stay or leave the job? Can these aspects be assessed in advance, so that interventions can be implemented to enhance nurses’ engagement with their work, and to reduce the risk of turnover?

Burnout and areas of worklife

The quality of a nurse’s work experience can be captured by the continuum of burnout to engagement. Burnout is a psychological syndrome that involves a prolonged response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach 1993). Burnout is one end of a continuum in the relationship people establish with their jobs, and stands in contrast to the opposite pole of engagement, in which people experience energy, involvement with their work, and feelings of effectiveness (Maslach & Leiter 1997).

Extensive research has confirmed the prevalence of burnout among nurses (e.g. Leiter & Maslach 1988, Greenglass et al. 2001, Janssen et al. 2001, Laschinger et al. 2001, Aiken et al. 2002), indeed, the nursing profession has been one of the most widely studied in the burnout field (Maslach et al. 2001).

Much of the research on burnout has focused on both situational and individual correlates, in an attempt to determine what causes it and who is more at risk for experiencing it. In particular, research has identified six key areas of worklife, in which incongruities, or mismatches between the person and the job, are predictive of burnout: workload, control, reward, community, fairness, and values (Maslach & Leiter 1997, Leiter & Maslach 2004). The first two areas are reflected in the Demand–Control model of job stress (Karasek & Theorell 1990), and reward refers to the power of reinforcements to shape behavior. Community captures all of the work on social support and interpersonal conflict, while fairness emerges from the literature on equity and social justice. Finally, the area of values picks up the cognitive-emotional power of job goals and expectations.

Research on the interrelationships of these six areas suggests that there is a consistent and complex pattern that predicts the level of experienced burnout. Using the Areas of Worklife Scale to assess person–job incongruities in these six areas, Leiter and Maslach (2004) found that workload and control each play critical roles (thus replicating the Demand–Control model) but are not sufficient. Reward, community, and fairness add further power to predict values, which in turn was the critical predictor of the three dimensions of burnout. Interestingly, the critical significance of values has also been found in the nursing profession, where value or ethical conflicts undermine nurses’ job satisfaction (Begat et al. 2005, Hegney et al. 2006).

Other burnout research has focused on the linkage between burnout and important work outcomes. For example, some studies have established the connection between higher levels of nurse burnout and poorer quality of patient care (Leiter et al. 1998, Vahey et al. 2004, Laschinger & Leiter 2006). In general, burnout has been correlated with various forms of negative responses to the job, including job dissatisfaction, low organizational commitment, absenteeism, intention to leave the job, and turnover (see Schaufeli & Enzmann 1998, for a review). A better understanding of the relationship could provide a basis for both early detection of potential employee turnover and possible strategies to prevent it.

As a job stress phenomenon, burnout is assumed to play a mediating role between the impact of external job demands (stressors) and work-related outcomes. Prior research to test this full Mediation Model of burnout has established that the six areas of organizational worklife are indeed predictive of levels of burnout (or engagement), which in turn are predictive of the outcome of perceived organizational change (Leiter & Maslach 2004, 2005, Leiter & Shaughnessy 2006). This same model could be used to assess the relationship of workplace stressors and burnout to the outcome of turnover, and to determine whether burnout mediates the impact of workplace stressors on intentions to leave the job.

More recently, longitudinal research has found that particular patterns of scores on measures of burnout and the six areas of worklife can serve as early predictors of subsequent change to either burnout or engagement (Maslach & Leiter 2008). A high score on one (but not all) of the burnout dimensions was an early warning indicator of someone at risk for burnout, but only those people who also reported a person–job incongruity, or tipping point, in at least one of the six areas actually moved to burnout a year later. This research suggests that the use of these two score patterns could identify in advance those people who are more likely to experience future burnout, and thus could inform preventive strategies. Although the current study was not a longitudinal one, and thus did not offer an opportunity to replicate these prior findings, it seemed plausible to look at the score patterns as a potential ‘Time 1’ assessment, and see if certain areas of

332
worklife were associated with incongruity scores for this particular population.

**Current study**

To test these ideas about the relationship of burnout to turnover, the current study conducted a survey among a large sample of Canadian nurses. The respondents were asked to complete measures of burnout, the six areas of worklife, and turnover intentions. These data provided an opportunity to test: (1) whether the Mediation Model of burnout would be replicated with the outcome of turnover intentions, and (2) whether the early predictors could identify what areas of worklife are of distinct significance for turnover in a nursing population.

The first test is based on two sets of hypotheses. The first set proposes the replication of the standard pathways among the three dimensions of burnout: exhaustion predicts cynicism, which in turn negatively predicts efficacy. In addition, all three burnout dimensions are proposed to predict the outcome of turnover intention. To evaluate the extent to which burnout mediates the relationship of worklife with turnover intention, we will conduct a direct test of mediation. A second set of hypotheses concerns the relationship of the six areas of worklife to the three dimensions of burnout. As found in prior research, workload is predicted to have a direct path to exhaustion. Values will mediate the relationship of other areas (except workload) with the three dimensions of burnout. Control will be related to all areas of worklife except for values. Reward, community, and fairness will predict values, as in previous research (Leiter & Maslach 2004). The combined set of hypotheses forms the model depicted in Figure 1.

The second test involves a set of exploratory hypotheses with regard to the early predictor scores, of early warning (scoring high on either the exhaustion or cynicism dimension of burnout) and of tipping point (scoring as an incongruity on one of the six areas). Among those respondents scoring as early warning, the tipping point scores will indicate which area(s) might be most important for intervention with regard to future burnout and turnover.

**Method**

**Procedure**

Participation in the study involved completion of a questionnaire package. The researchers distributed paper questionnaire packages to nurse managers at selected hospitals in all four Atlantic Provinces in Canada: New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. Nurse managers were responsible for distributing the packages to point-of-care nurses working on their units, either during unit meetings, or by placing the packages in mailboxes, or leaving a stack of packages with ward clerks to help distribute. All of the packages included the survey, an information letter detailing the procedures and reason for the study, a flyer to advertise the online version of the survey, and a ballot and ballot envelope. As an incentive to participate, all nurses who completed the survey were given the opportunity to enter their name into a prize draw. The research team received ethical approval from the Research Ethics Board of the principal investigator's university and from the Research Ethics Boards of each of the hospitals whose nurses participated in the research project. The Research Ethics Boards considered all details of the design, informed consent, and dissemination and provided explicit approval of all aspects of the study.

**Participants**

Most of the sample of Canadian nurses (n = 667) were female with 33 males (25 respondents did not specify their gender). Respondents included Registered Nurses (n = 589), Licensed Practical Nurses (n = 85), Clinical...
Nurse Specialists ($n = 5$), Clinical Nurse Educators ($n = 5$), Nurse Practitioners ($n = 3$), and ‘other’ ($n = 15$; 23 additional respondents did not specify their job title). Participants worked in Tertiary Hospitals ($n = 226$), Regional Hospitals ($n = 362$), Community Hospitals ($n = 89$), or other settings ($n = 24$; 24 additional respondents did not specify their work environment). The majority of participants worked full time ($n = 437$), with 135 respondents working part time, and 46 respondents working casual (107 did not specify their work status). The majority of respondents were staff nurses ($n = 601$), and there were 29 managers and 68 classified as ‘other’ (27 respondents did not indicate their position). Of the participants, 54 had worked at their present organization for less than a year; 240 had worked at their organization for 2–10 years, 210 had worked for 11–20 years, and 199 had worked at their present organization for over 20 years (22 participants did not specify their time with their organization). The sample represents a 29% response rate for the 2500 surveys distributed to acute care settings in Atlantic Canada. The large proportion of full time, female, point-of-care Registered Nurses is representative of the population.

Measures

Burnout

Burnout was measured using the Maslach Burnout Inventory-General Scale (MBI-GS; Schaufeli et al. 1996). The MBI-GS measures the three dimensions of the burnout-engagement continuum: exhaustion-energy, cynicism-involvement, and inefficacy-efficacy. The items are framed as statements of job-related feelings (e.g. ‘I feel burned out from my work,’ ‘I feel confident that I am effective at getting things done’), and are rated on a 6-point frequency scale (ranging from 0 = never to 6 = daily). Burnout is reflected in higher scores on exhaustion and cynicism, and lower scores on efficacy, whereas the opposite pattern reflects greater engagement. Developed from the original MBI (Maslach & Jackson 1981), which was designed for human service occupations, the MBI-GS is a 16-item measure that evaluates burnout among people in all occupations. Median splits on scores for exhaustion and for cynicism were used to create the early warning scores: above the median on one dimension but below the median on the other (i.e. exhaustion only, cynicism only).

Areas of worklife

The Areas of Worklife Scale (AWS; Leiter & Maslach 2004) assessed workload, reward, control, community, fairness, and values. The items are worded as statements of perceived congruence or incongruence between oneself and the job. Thus each subscale includes positively worded items of congruence, e.g. ‘I have enough time to do what’s important in my job’ (workload) and negatively worded items of incongruence, e.g. ‘Working here forces me to compromise my values’ (values). Respondents indicate their degree of agreement with these statements on a 5-point Likert-type scale ranging from 1 (strongly disagree), through 3 (hard to decide), to 5 (strongly agree). The scoring for the negatively worded items is reversed. For each of the six subscales, the AWS measure defines congruence as a high score (>3.00), indicating a higher degree of perceived alignment between the workplace and the respondent’s preferences. Conversely, it defines incongruence (or a tipping point score) as a low score (<3.00), indicating more perceived misalignment or misfit between the worker and the workplace. Reliability testing of the scale using a normative sample ($n = 6815$) has shown the AWS to be internally consistent as assessed by Cronbach alpha: workload (0.70), reward (0.83), control (0.72), community (0.84), community (0.78), values (0.86) (Leiter & Maslach 2004). In the present study, the internal reliability was acceptable (see Table 1), with all item-total correlations with an absolute value above $r = 0.49$.

Turnover intentions

Three items from the Turnover intentions measure (Kelloway et al. 1999) assessed intention to quit (‘I plan on leaving my job within the next year,’ ‘I have been actively looking for other jobs,’ and ‘I want to remain in my job’). Respondents rated each item on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). In the current study, the internal consistency was high ($\alpha = 0.82$). The item-total correlations ranged from $r = 0.57$ to 0.63.

Results

Data were analyzed with SPSS (15) to compute correlations and descriptive information. Scores were compared to norms using a single sample $t$-test. The structural equation model (SEM) was analyzed with EQS (EQuationS) (Bentler & Chou 1987).

Descriptive statistics and relationships among variables

Table 1 displays the descriptive statistics and correlations for the variables in the study. The data are based
on the full item scores for the variables. As predicted, workload had a much larger correlation with the burnout dimension of exhaustion ($r = -0.60$) than with cynicism ($r = -0.38$) and efficacy ($r = 0.22$). Also as predicted, the area of values is correlated with all three aspects of burnout. Scores on exhaustion ($M = 2.65$) were positive relative to nursing norms ($M = 1.82$) was close to the norm ($M = 1.82, t = -0.78, P < 0.001$); cynicism ($M = 1.82$) was lower than the norm ($M = 4.54, t = 4.06, P < 0.01$). The factor loadings (see Table 2) showed that the items loaded on their appropriate factor.

Theoretical model analysis

The Mediation Model (see Figure 1) was tested using latent variables as defined above (see Table 2 for the $R^2$ values). One criterion for model fit was an absolute reference point of a CFI ≥ 0.900 (Byrne 1994). The hypothesized model produced a good fit beyond the criterion level of CFI ≥ 0.900 ($\chi^2_{(389)} = 769.69, P < 0.001; \text{CFI} = 0.938, \text{RMSEA} = 0.043$). However, in this model four paths fell short of significance: community to values, reward to values, exhaustion to turnover intention, and efficacy to turnover intention. Further, the modification indices indicated that a path from reward to fairness and a path from reward to cynicism would improve the model fit. A Modified Mediation model with these modifications produced an excellent fit ($\chi^2_{(391)} = 692.23, P < 0.001; \text{CFI} = 0.951, \text{RMSEA} = 0.034$).

Figure 2 displays the Modified Mediation model with path coefficients. All of the paths specified in the Modified Model were statistically significant. The modification indices did not indicate any additional structural links that would improve the model substantially. What is noteworthy in this Modified Model is that the cynicism dimension of burnout is the critical predictor of turnover intention, and that the area of reward plays a unique role.

To test the hypothesis of whether burnout would mediate the relationship of areas of worklife with turnover intention, we assessed a model that specified, in addition to the path from cynicism, direct paths from each of the six areas of worklife to turnover intention. We contrasted this model with one that specified covariances of the six areas of worklife with turnover intention (cf Leiter 2005). This procedure contrasts two models with identical structure and degrees of freedom, which differ solely in whether a relationship between two constructs is a direct path contributing to the explained variance in the criterion variable or a covariate that does not explain variance.

In the direct path model, the $R^2$ for turnover intention was 0.384, a modest increase in explained variance over the $R^2$ of 0.361. In contrast, the $R^2$ for turnover intention with the six areas of worklife as covariates rather than as predictors was 0.392, indicating that including the path from the six areas reduced the explained variance in turnover intention by 0.008. The unexpected effect of reducing the explained variance likely reflects multicollinearity among the predictors. In any case, the analysis demonstrates that adding direct paths from areas of worklife to cynicism does not increased the explained variance in turnover intention at all, thereby confirming that all of their relationships are mediated through burnout, especially the cynicism aspect of the syndrome.

Table 3 displays the total direct and indirect effects within the model. The table indicates the pervasive relationship of control throughout the model. It also indicates the indirect links of burnout and turnover intention with all aspects of the model except for community and efficacy, which did not contribute to predicting other variables in the model.
Exploratory analysis of score patterns

An analysis of the subgroup of respondents (n = 222) who showed the early warning pattern (exhaustion only or cynicism only) revealed that incongruities in three areas of worklife were significantly correlated with turnover intention: values (0.21, P < 0.01), fairness (0.19, P < 0.01), and community (0.16, P < 0.01).

Discussion

The results of this study provide some new insights into how the intention of nurses to leave their job is related to particular aspects of their worklife and to burnout. Such insights may provide clues as to what may be the most appropriate areas to target for interventions to reduce the risk of nurses exiting early from their chosen career. Thus this study has both theoretical and practical significance. We should note, however, that the study is limited by its reliance on cross-sectional questionnaire data. The analyses reported here are encouraging, but more research will be needed to fully evaluate the impact of burnout on nurses’ career decisions. Nevertheless, the current findings have some interesting implications for nursing management and workplace interventions.

Burnout as the critical mediator

A major goal of this study was to determine if the mediation model could be both replicated within a nursing population and extended to predict a different outcome, namely turnover intention. The results provided a replication of the primary points of the mediation model of burnout. First, the results replicated the predicted relationships among the three aspects of burnout: exhaustion predicted cynicism, which predicted inefficacy. Second, the findings confirmed the direct relationships between burnout and several of the areas of worklife: values congruence predicted all three dimensions of burnout, while workload had a direct link to just exhaustion. Third, the results showed that the area of control was predictive of the remaining three areas (fairness, reward, and community), and in turn,
fairness predicted values. Fourth, burnout was indeed predictive of turnover intention, and it clearly mediated the effect of workplace factors on this outcome. Overall, these findings provide a great deal of support for the Mediation Model of burnout.

However, there were a few departures from the original predictions. The most intriguing of these was that just one dimension of burnout, rather than all three, was the clear predictor of turnover intention. The importance of this single dimension of cynicism was underscored by the fact that reward showed a direct path to cynicism, bypassing the projected route through values. Reward also displayed an additional path to fairness, which had not been predicted, but which suggests some interesting possibilities for interpretation. Finally, community played an unexpectedly minor role in this analysis.

The results indicate that the primary issue for turnover intentions is the extent to which nurses are involved in their work: that is, the psychological withdrawal of cynicism is associated with the social withdrawal of quitting a job. The primary issues for cynicism, in turn, are (1) exhaustion as a function of unmanageable workload, (2) value conflicts and unfairness in settings that do not support a nursing model of care, and (3) inadequate reward systems. At the root of the entire model is control, representing the capacity of nurses to work according to their values and to develop a healthy, sustaining worklife.

What is especially noteworthy about these results is the implication that the burnout dimensions may have a differential effect for mediating different outcomes. In the case of turnover intention, cynicism carried the most weight (even though it maintained its relationship with the other dimensions). However, it is possible that for other outcomes, another dimension might be most critical, or all three of them might have independent contributions. The strong linkage between cynicism and turnover intention makes a lot of sense conceptually, and future research on turnover would do well to focus on this particular marker more specifically.

### Critical areas of worklife

The results emerging from both the test of the model and the evaluation of the score patterns point to the areas of values, fairness, and reward as especially significant for nurses who may be more likely to experience burnout and leave their job. The critical issue for values in the Mediation Model was clearly organizational justice and respect, as reflected in its prediction by the area of fairness. The fact that rewards were also a predictor of fairness suggests that an important issue for nurses was the unfair, or inequitable, manner in which rewards were distributed. In addition, an experienced incongruity in rewards, such as a lack of appropriate recognition or compensation, was more likely to lead nurses to experience cynicism about their work.

The area of community was largely absent from the Mediation Model of burnout predicting turnover intention. However, incongruities in community were associated with those nurses who were showing an initial sign of burnout. The latter result would suggest that problems in community might be a target of preventive intervention; the former result suggests that it is not an important factor. It is not clear how to make sense of this anomaly. Although community may not have been an important problem for the overall nursing sample in the model test (and indeed, the mean score for this area was relatively positive), the presence of a negative incongruity in community appears to be critical for those nurses who are already experiencing one of the burnout dimensions. This suggests that nurses who can be identified as already at risk for burnout may be having difficulties in their relationships with their colleagues, and so community interventions might also be important for this particular group.
Implications for practice

The primary message from this study is that cynicism plays a pivotal role in translating nurses’ experience of worklife into action plans: their psychological withdrawal from work predicts intentions to withdraw completely. The predictors of cynicism in the model point towards action points for nursing administrators. First, the strong contribution from exhaustion encourages initiatives to sustain manageable workload and workplace health. Healthy, energetic nurses are less likely to be cynical. Second, the results encourage nursing leaders to promote a nursing model of care that increases the perceived fairness of professional and organizational values in their hospitals. Third, the strong contribution from reward to cynicism encourages leaders to build systems for recognizing and acknowledging nurses’ contributions in a way that they consider fair and meaningful. Finally, although community played a minor role in the overall model, the focus on nurses with the greatest likelihood for change suggested that the quality of collegial relationships could be especially important to their turnover decisions. Initiatives to enhance civility at work, such as the Civility, Respect, and Engagement at Work program (Leiter et al. 2008) can make an important contribution to a recruitment and retention strategy. A systematic employee survey with a valid assessment of burnout and worklife areas provides managers with the information necessary to implement such a strategy in their workplace.

Acknowledgement

This research was conducted with support from Health Canada and the Social Sciences and Humanities Research Council of Canada.

References


