

USING PERSON-ENVIRONMENT FIT AND CAREERS STAGE TO EXAMINE SATISFACTION, COMMITMENT AND WORK STRAIN IN CANADIAN NURSES

In Canada, the profession of nursing is of particular interest to organizational researchers and practitioners within the field of psychology because this group of employees seems to experience a disproportionate rate of adverse occupational outcomes – namely higher rates of job dissatisfaction, absenteeism, and turnover compared to other occupational groups (Raiger, 2005; Shields & Wilkins, 2006). Occupational stress and illness, burnout and job satisfaction have become great concerns for nurses and hospital administrators. Nursing human resources research seems to suggest that a number workplace and vocational issues have lead to the current crisis in which the profession finds itself today (Canadian Nursing Advisory Committee, CNAC, 2002; Hayes, O'Brien-Pallas, Duffield, Shamian, Buchan, Hughes, Spence Laschinger, North & Stone, 2006; Priest, 2006; Raiger, 2005). Nursing human resources experts also caution that if this current crisis in nursing shortages and turnover rates is not remedied, it could jeopardize patient care and the country's healthcare system (CNAC, 2002). A recent review of the major issues affecting nursing human resources in Canada recommends that a key strategy in addressing the nursing shortage is retaining currently employed nurses by increasing their occupational health and well being as well as increasing their levels of job satisfaction and commitment (Priest, 2006).

The purpose of the present study was to examine how nurses' perceptions of fit with the work environment might impact their ratings of job satisfaction, commitment and work-related depression, anxiety and irritation. Person-environment (P-E) fit theory was used to examine how perceptions of the compatibility or *fit* between an individual

and his or her environment on a particular dimension can explain individual attitudes and behaviour (Schneider, Smith & Goldstein, 2000). In the past, most P-E fit research has only explored the consequences of one fit type at a time when examining the relation between the employee and the work environment (Kristof, 1996). Given that the work environment is comprised of a number of person-environment interactions, the present study investigated a selection of these dynamics within the workplace. Specifically, the roles of two distinct types of person-environment fit conceptualizations were examined: person-organization (P-O) fit (e.g. the perceived match with organizational values) and person-job (P-J) fit (e.g. the perceived match between the individual and job dimensions such as the knowledge, skills and abilities required to meet job demands).

It is also important to examine the potential impact of career stage on the predictive ability of P-E fit on occupational outcomes for nurses. As Lachterman and Meir (2004) suggest, perhaps certain types of P-E fit impact occupational outcomes at different stages in an employee's career. Specifically, it may be the case that perceptions of P-O fit may influence satisfaction and commitment for employees who have worked in a particular job for several years and had time to form expectations about their organization. On the other hand, newer employees' levels of job satisfaction, commitment and turnover intentions may be more a factor of fit perceptions between their personalities, needs, wants, skills or abilities and the demands and rewards of their newly acquired job.

The following hypotheses relating to nurses' self-reported satisfaction, commitment and work strain were examined: (1) Perceived P-J fit will negatively predict work-related depression, anxiety and irritation, and positively predict commitment and

satisfaction for nurses in the early stages of their career whereas P-O fit will not be as important a factor in influencing occupational well-being; and (2) P-O fit will negatively predict work-related depression, anxiety and irritation, and positively predict commitment and satisfaction for veteran nurses whereas P-J fit will not emerge as a significant factor in predicting occupational well-being. Ultimately, the present study seeks to bridge together P-E fit theory and nursing human resources research in an attempt to explore factors that may affect the current Canadian nursing turnover crisis.

Participants and Procedure

The sample consisted of 235 English-speaking Canadian nurses – most of whom were female (95.3%). The average age of respondents was 44.13 and ranged from 21-63 years old. Length of time as a nurse ranged from 0-42 years and on average participants had been in the nursing profession for approximately 20.5 years. The majority of the respondents (80.9%) were registered nurses while the remaining 19.1% consisted of registered practical nurses, registered psychiatric nurses or nurse practitioners. Most participants (69%) worked in patient care. Over half of respondents (56.1%) worked in a hospital setting, followed by a community health facility (18.4%). The remaining 25.5% of participants worked in either a long-term care facility, educational institution or in a combination of settings. The majority of respondents either had a college diploma (40.7%) or an undergraduate or graduate university degree (42.4% and 11.7% respectively).

Just under half of the nurses in the sample resided in Ontario (44.2%) followed by Newfoundland (19.6%), Alberta (14.5%), British Columbia (12.3%) and Manitoba (5.1%). The remaining 4.3% of participants were from New Brunswick, Nova Scotia,

Saskatchewan, Quebec or the Northwest Territories. None of the participants in the present study were from Prince Edward Island or the Yukon or Nunavut territories.

The participants in the present study were not unlike the national population of nurses as reported by the Canadian Nurses Association (2008). In Canada, approximately 94% of nurses are female, with an average age of 45 years. The participants in the present study were however, more likely to have a university degree compared to the national population where only 36% of nurses have a baccalaureate or graduate degree.

Participants completed online self-report measures of job satisfaction, commitment to the nursing profession, commitment to their organization of employment, work-related depression, anxiety and irritation and turnover intentions. Analyses were conducted to determine the extent to which career stage impacted the relationship between P-E fit variables and those related to occupational attitudes, well-being and turnover.

Results

Demographic and tenure-related characteristics of the nurses in the various stages of their careers are summarized in Table 1. The early career stage consisted of nurses who were 21-35 years of age. The mid career stage consisted of 36 - 44 year-olds, while the late career stage included nurses who were 45 years of age or older. In addition to their age, organizational, job and professional tenure differences, it is also apparent that there are slightly more males in their early stage of their career compared to later stages. In addition, newer nurses had the longest workweek compared to the other groups of nurses and were more likely to have a University degree.

Table 1

Demographic Characteristics of Nurses in Early (n=47), Mid (n=61), and Late (n=127) Career Stage

	<u>Career Stage</u>			
	<u>Early</u> M or % (SD)	<u>Mid</u> M or % (SD)	<u>Late</u> M or % (SD)	<u>Total</u> M or % (SD)
<u>Demographic</u>				
Female	89.4	96.7	96.9	95.3
Age	28.87 (3.54)	40.43 (2.30)	51.55 (4.36)	44.13 (9.71)
Professional tenure	60.43 (39.64)	202.15 (63.03)	337.27 (88.83)	246.83 (132.34)
Organizational tenure	43.00 (32.29)	111.74 (89.95)	192.39 (121.10)	142.39 (117.63)
Job tenure	26.24 (22.92)	55.82 (53.11)	85.54 (75.65)	66.13 (66.86)
Hours worked/week	39.18 (13.24)	33.44 (10.85)	36.34 (10.55)	36.17 (11.33)
University Degree	70.2	50.8	48.0	54.1

Note: All tenure variables are represented in months.

Differences among the three career stage groups on measures of P-J fit and P-O fit as well as the occupational outcomes were explored to determine the direct impact of career stage on occupational attitudes and well-being. Table 2 presents the mean scores and standard deviations for all variables across the three career stages. A comparison across the nurses in the different career stages revealed a significant difference in turnover intentions [$F(2, 232)=7.17, p =.001$]. Post-hoc comparisons using Tukey HSD test revealed a significant difference between the early career stage nurses and nurses in

their late career stage. Mean scores on turnover intentions for nurses in the middle stage of their career did not differ significantly from the remaining two groups.

Table 2

Means and Standard Deviations for Nurses in Early (n=47), Mid (n=61), and Late (n=127) Career Stage on Measures of Person-Job Fit, Person-Organization Fit, and on Measures of Occupational Health and Well-being

Work-related variable	Career Stage			
	<u>Early</u> M(SD)	<u>Mid</u> M(SD)	<u>Late</u> M(SD)	<u>Total</u> M(SD)
P-J fit	5.33(.97)	5.81(.90)	5.78(.98)	5.69(.97)
P-O fit	4.89(1.16)	4.90(1.44)	5.03(1.40)	4.97(1.36)
Job satisfaction	5.04(1.51)	5.55(1.24)	5.54(1.27)	5.44(1.32)
Affective commitment	4.09(1.31)	3.93(1.40)	4.34(1.32)	4.18(1.34)
Continuance commitment	4.05(1.42)	4.30(1.16)	4.45(1.19)	4.33(1.24)
Normative commitment	3.02(.97)	3.10(.93)	3.16(.81)	3.11(.88)
Career commitment	4.99(1.63)	4.93(1.45)	5.08(1.36)	5.02(1.43)
Work Tension	4.70(1.47)	4.30(1.17)	4.32(1.30)	4.39(1.31)
Work-related depression, anxiety and irritation	1.91(.56)	1.72(.38)	1.73(.39)	1.76(.43)
Turnover intentions	1.95 _a (.88)	1.74(.79)	1.48 _a (.70)	1.64(.78)

^aMeans differ significantly $p=.001$

Moderating Effect of Career Stage on the Predictive Ability of P-E Fit Variables

Multiple regression analyses were used to test the hypothesis that P-J fit would be more associated with occupational outcomes for newer nurses whereas P-O fit would better predict occupational outcomes for veteran nurses. In order to determine the impact of the interactions between the two career stages of interest (early and late career) and the two fit types on the various occupational outcomes, four interaction product variables were created by multiplying the career stage variable with P-E fit variables. The following four interaction variables were then used to predict the dependent variables: 1) early career stage by P-J fit score, 2) early career stage by P-O fit score, 3) late career stage by P-J fit score, and 4) late career stage by P-O fit score. A number of significant interactions were obtained but four in particular supported the hypothesis that P-J fit would be more strongly related to workplace attitudes and well-being for newer nurses but not so for veteran nurses. The results of these significant interactions are depicted graphically in Figures 1-5.

In Figure 1, it can be seen that for early career stage nurses, predicted affective organizational commitment scores (the employee's emotional attachment, identification and involvement in the organization) were higher at high levels of P-J fit and lower at low levels of P-J fit, whereas affective commitment scores remain relatively stable for nurses in other career stages. Figure 2 demonstrates a similar relationship when predicting career commitment (commitment to the nursing profession). Career commitment scores vary only slightly with high and low levels of perceived P-J fit for veteran nurses, but change significantly for newer nurses across P-J fit levels. When perceived fit is high for new nurses, so too are their career commitment scores. For

affective organizational and career commitment, no significant interactions between P-O fit and career stage were obtained.

Figure 1: Predicting Affective Commitment Using P-J Fit and Early Career Interaction

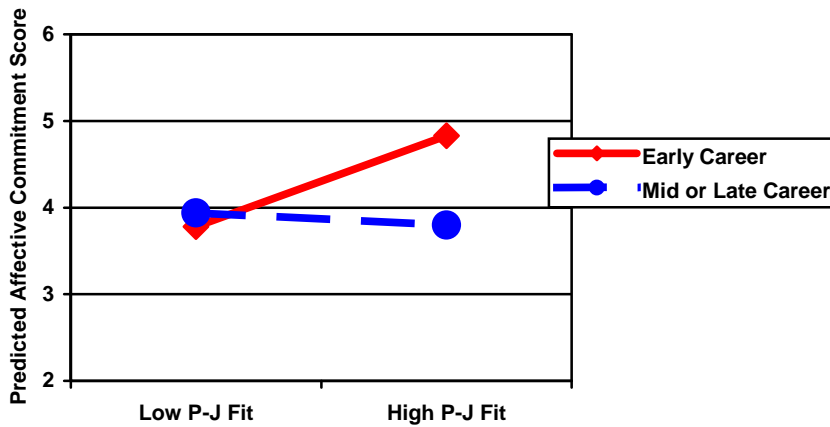
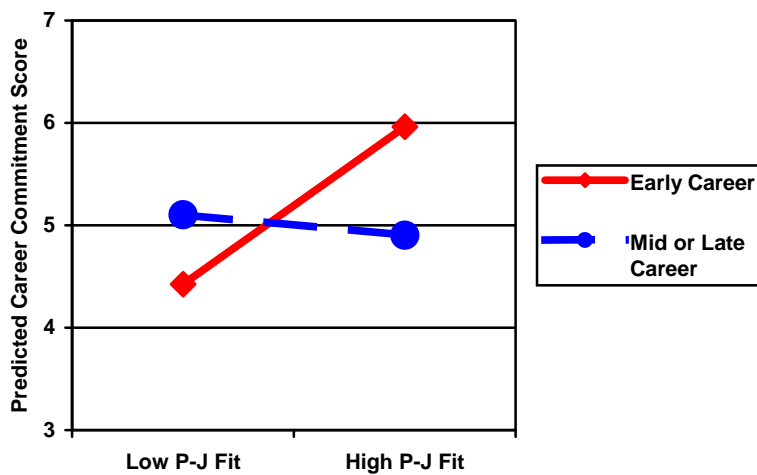
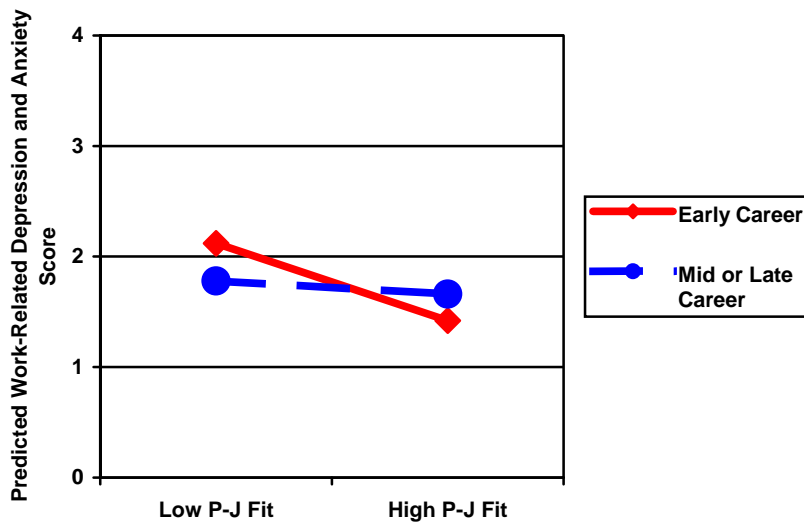


Figure 2: Predicting Career Commitment Using P-J Fit and Early Career Stage Interaction



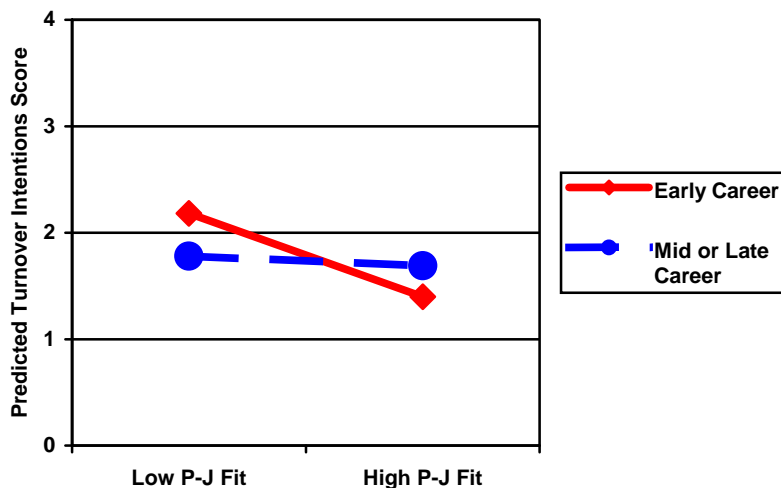
When considering work-related depression, anxiety and irritation as a dependent variable, a significant interaction was also obtained regarding early career stage and P-J fit. The interaction is depicted graphically in Figure 3. As was the case with affective organizational and career commitment, an inspection of the interaction revealed that for early career stage nurses, their predicted work-related depression, anxiety and irritation scores depended on whether they perceived a high or low level of fit with their job. When fit was high, predicted depression, anxiety, and irritation scores were lower than when perceived P-J fit was low. For all other nurses, depression, anxiety and irritation scores remained relatively unchanged across high and low levels of P-J fit.

Figure 3: Predicting Work-Related Depression, Anxiety and Irritation Using P-J Fit and Early Career Interaction



In terms of predicting turnover intentions, a significant interaction involving P-J fit and early career stage was obtained and was similar to the relationship involving work-related depression, anxiety and irritation. For newer nurses, when P-J fit perceptions were low, turnover intentions were high. On the other hand, when fit perceptions were high, turnover intentions were low. Turnover intentions remained relatively stable for mid and late career stage nurses across both levels of P-J fit.

Figure 4: Predicting Turnover Intentions Using P-J Fit and Early Career Stage Interaction



Taken as a whole, these significant interactions partly support the hypotheses of the present study. In particular, these results support the notion that P-J fit is important in predicting variables related to occupational attitudes and well-being for newer nurses but not for veteran nurses. Support for the hypothesis that P-O fit would best predict occupational outcomes for veteran nurses was not obtained.

Discussion

Results from the present study support the practice of using P-E fit theory to investigate underlying factors related to nurses' occupational attitudes and well being. The purpose of the present study was to explore the impact of career stage on the predictive ability of perceived P-J and P-O fit on a number of work-related variables. Results from the present study shed some light on specific factors that may influence newer nurses' decision to remain with their organization, job and/or career. Specifically, results revealed that perceptions of fit with one's job were indeed important in influencing the level of job satisfaction, affective organizational commitment and career commitment experienced by new nurses. Such findings suggest to nursing administrators that new nurses need to perceive a match with their jobs in order to experience positive work-related outcomes related to turnover.

These results may be explained by the fact that previous research has found that newly graduated nurses have more of an idealistic perception of the nursing profession, rather than a more realistic sense of what their first job will be like (Hayes, Orchard, et al., 2006). In their review, regarding career intentions of new nurses Hayes, Orchard, et al. (2006) discuss that new nurses have specific school-taught idealistic values that are based on perceptions that the nursing profession is one of helping people by delivering holistic care. Nurses find that once they enter the workforce, they face a "reality shock" and realize they do not have the same level of support and resources they once did as students, and may not be able to deliver that ideal level of care. New nurses may then feel disappointed and dissatisfied with their choice of job or career. The results from the present study provide additional insight into that process, as it was found that newer

nurses needed to perceive a high degree of P-J fit in order to experience higher levels of satisfaction and commitment, and lower levels of work strain and turnover intentions.

Once administrators realize the importance of perceived P-J fit for new nurses, the focus can then be directed on how nursing education faculties and organizations can work together to help new nurses develop accurate and realistic expectations about their first employment experience and improve new graduates' sense of fit with their job.

The governments within Canada have recognized the need to pay attention to nursing issues such as staffing shortages, job satisfaction, improving workplace environments and attracting new nurses to the field while retaining veterans. As a result both national and provincial funders have developed nursing strategies in collaboration with nursing associations and Universities. For example, Ontario's Nursing Strategy includes creating more full time employment for nurses as well as ensuring every new nursing graduate who wishes to work full time has that opportunity. The province of Ontario is also providing funding to create a positive and rewarding work environment by increasing opportunities for professional development, providing better equipment and increasing mentorship programs to help new nurses make the transition into the profession.

However, if fit is important, as the results from the present study suggest, then nursing administrators should also ensure that their employees perceive a high level of fit with their jobs and their organizations in order to experience any positive occupational outcomes related to satisfaction, commitment and turnover. P-E fit-related research such as the present study can be extremely beneficial in not only informing funders about the current state of nursing but also in providing evidence regarding the impact of their

current nursing strategies on nurses' job satisfaction, commitment, strain and turnover. P-E fit related research can also be helpful in guiding nursing human resources research in the ongoing development and refinement of additional strategies that will impact on variables related to turnover and burnout. Continued research of this nature is valuable in order to inform funders and nursing associations of the impact of the various initiatives and can focus future nursing initiatives and funding opportunities. Fortunately, given the breadth of P-E fit research conducted in the realm of organizational and vocational psychology, a number of recommendations brought forth by psychological researchers can be applied to the efforts of those within the field of nursing human resources.

For example, Lauver and Kristof-Brown (2001) have suggested that managers make fit a priority in their organizations and that fit can be augmented throughout the selection and early socialization process. In general, potential employees are attracted to jobs and organizations because individuals possess the values, personality, skills or abilities that will allow them to perform their role successfully (Schneider, 1987). The selection process can therefore serve as an opportunity for managers to assess a potential employee's P-J fit-related criteria such as skills, abilities and experience required to perform job-related duties as well as P-O fit related criteria such as enthusiasm for the company and work-related values. This is important because research has demonstrated that employees whose values match those of the organization upon entry are able to adjust to their new jobs more quickly (Chatman, 1991).

Once an employee is hired, it is also essential that training be offered to shape and refine any knowledge, attitudes or behaviours that may increase an individual's sense of fit with their job and their organization (Lauver & Kristof-Brown, 2001). Research has

also demonstrated that a rigorous socialization process can increase an individual's fit with their organization and can subsequently influence levels of satisfaction and intentions to remain (Chatman, 1991). In addition, it is also possible to determine which types of socialization tactics may be more effective within the nursing profession itself. Researchers in the field of nursing human resources can systematically explore a variety of socialization concepts, to determine if any particular socialization tactics can improve nurses' sense of fit with their jobs and their organizations as well as individual perceptions of job satisfaction, commitment and work strain.

The abovementioned initiatives focus predominantly on ways in which the individual employee can be managed to perceive a higher degree of fit with the job or the organization. It should also be noted that change can and should also occur within the environment. Nurses in previous research have consistently mentioned preferred environmental characteristics that promote fit and occupational health and well-being. Nursing managers and administrators should be aware of these important organizational and job characteristics that influence nurses' perceived P-E fit and strive to create such jobs and organizational cultures. There needs to be a balance between individual and environmental change that promotes fit between employees and their workplace. Retention initiatives based on P-E fit should therefore not only focus on the development of realistic individual expectations regarding the work environment, but also on the improvement of working conditions in order to meet employee expectations.

Conclusion

The present study has added to the fields of P-E fit and nursing human resources. Results have revealed that different dimensions of P-E fit can and should be examined in

a single study in order to capture how this dynamic construct impacts work-related attitudes and behaviours.

For nurses, P-E fit emerged as an important factor related to a number of work-related variables including turnover intentions. It was also found that career stage impacted the relationship between P-E fit and various outcomes such that newer nurses' levels of job career commitment, affective organizational commitment, and turnover intentions depended on whether or not they perceived high or low levels of P-J fit. These results can potentially help nursing human resources researchers and administrators refine and develop initiatives that will increase nurses' sense of fit with their environment. It is then possible to maximize retention initiatives that will assist in improving the lives and work experiences of all nurses, who are highly valued and indispensable members of the Canadian healthcare system.

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