2008

Using person-environment fit and careers stage to examine satisfaction, commitment and work strain in Canadian nurses

Simone Arbour
University of Windsor

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

by
Simone Arbour

A Dissertation
Submitted to the Faculty of Graduate Studies
through Psychology
in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy at the
University of Windsor

Windsor, Ontario, Canada
2008

Author's Declaration of Originality

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication.

I certify that, to the best of my knowledge, my thesis does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my thesis, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this thesis has not been submitted for a higher degree to any other University of Institution.

Abstract

The present study sought to bridge person-environment (P-E) fit theory with nursing human resources research to explore factors related to the current Canadian nursing turnover crisis. Specifically, person-organization (P-O) fit and person-job (P-J) fit conceptualizations were used to examine job satisfaction, commitment, and work strain in a sample of Canadian nurses. The present study investigated the impact of a nurse's career stage on the predictive ability of P-E fit variables on occupational outcomes related to nursing turnover. It was hypothesized that P-J fit would better predict outcomes for new nurses whereas P-O fit would better predict outcomes for veteran nurses. Both P-J and P-O fit perceptions were directly related to job satisfaction, career commitment, normative and affective organizational commitment, work tension, and turnover intentions. Results partially supported the hypothesis that career stage moderated the relationship between fit and occupational well-being as perceived P-J fit negatively predicted work-related depression, anxiety and irritation and positively predicted career commitment, affective organizational commitment and job satisfaction for nurses in the early stages of their career but not for nurses in the later stages of their career. Recommendations for nursing retention initiatives are discussed.

DEDICATION

This work is the result of the last five years of my life. So many people contributed to the successful completion of this project and all my scholarly pursuits that I worry this dedication will not even begin to express the degree of gratitude I feel for all the support and guidance I received from others. Nonetheless, I would like to take the opportunity to at least try to convey how thankful I am to those who were instrumental in helping me with this achievement.

Firstly, I would like to thank my advisor, Dr. Catherine Kwantes. I appreciate her guidance and encouragement throughout this whole process. Even when I found things to be most difficult, she was always the calming voice of practicality and reason. I enjoyed (and will continue to enjoy) working with her.

I would also like to thank Dr. Charlene Senn. Although I did not receive direct supervision from Dr. Senn, I always considered her to be a great mentor. Dr. Senn is the professional standard by which I measure my current and future work.

In addition, I would like to thank Barbara Zakoor of the psychology department. Any psychology graduate student at the University of Windsor knows how accurate I am, when I say that I could not have succeeded in grad school without Barb's help. Thank you so much.

I am also very grateful to my colleagues at Bellwood Health Services (especially those at 1039). In particular, I would like to thank Dr. Janice Hambley for all her advice and support. I received a great deal of encouragement from our talks and continue to grow as a professional and as a researcher because of the opportunities that Bellwood has afforded me.

There is a core group of individuals who were with me through it all – my family. I would like to thank my parents, my sister Michelle, and Robert for their constant support. I am deeply thankful to my husband, David. I could not have done this without you. You always believed in me, even when I doubted myself. I look forward to our lives together as "non-students." I am very lucky to have such a wonderful family who are so patient and willing to encourage me in everything I do.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

Introduction

The interactional perspective of person-environment fit has been applied to a variety of contexts to examine how individual factors and characteristics of one's surroundings interrelate to influence behaviour. One context that has received increasing amounts of attention by psychological researchers is the workplace. Organizational researchers seek to determine what individual characteristics and workplace factors combine to optimize the experiences of employees in their jobs and in their organizations (Tinsley, 2000). Person-environment fit (the need to effectively match employees to jobs and organizations) has become a popular avenue for organizational researchers and practitioners to predict a variety of workplace attitudes and behaviours. For example, consequences associated with employee-environment misfit may include a number of adverse occupational outcomes such as dissatisfaction, work tension, absenteeism, burnout and ultimately turnover (Kristof, 1996; Kristof-Brown, Zimmerman & Johnson, 2005; Lachterman & Meir; Schneider, Smith & Goldstein, 2000; Berquer, Beehr, & Wagner, 2003).

In Canada, the profession of nursing is of particular interest to organizational researchers and practitioners 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

1

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, Taylor & Barling, 2004).   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 suggests 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 (Priest, 2006).

The purpose of the present study is to use an interactional perspective to explore the relation between person-environment fit and occupational outcomes such as job satisfaction and work tension in a sample of Canadian nurses. In the past, most 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. Given that the work environment is comprised of a number of person-environment interactions, the present study will investigate a selection of these dynamics within the workplace. Specifically, the roles of two distinct types of person-environment fit conceptualizations will be examined: person-organization fit and person-job fit. Given the dynamic nature of the person-environment interaction, it is relevant to explore the notion that different person-environment fit conceptualizations may impact an employee at different points in his or her career stage.

If interactional research is able to identify the combination of individual characteristics and job and organizational factors that, when combined, optimize the employee-work environment experience, it seems appropriate to apply this type of research to examine how nurses interact with their work environment. Results from this study can then help administrators better understand some of the factors that may affect the current nursing shortage crisis and perhaps assist in suggesting interventions designed to remedy it.

Person-Environment Fit Overview

The interactionist perspective holds that behaviour is produced by the interaction between characteristics of the individual and dynamic factors within the environmental setting. Person-environment (P-E) fit extends this theoretical framework and proposes that the compatibility or *fit* between an individual and his or her environment on a particular dimension can further explain individual attitudes and behaviour (Schneider, Smith & Goldstein, 2000). In a workplace environment, fit researchers seek to determine the extent to which individual characteristics (such as values, beliefs, abilities and personality) and features of the work setting (such as organizational culture or job requirements) jointly influence occupational outcomes such as job satisfaction, commitment, absenteeism, work tension, burnout and employee turnover behaviours.

If workplace attitudes, behaviours, and organizational outcomes such as productivity can be influenced by the interaction between the individual and the work environment, the need to understand how and why certain employees thrive in certain organizational settings becomes a real concern for human resources professionals. P-E fit is one approach that has attracted a great deal of attention in recent years as a method of

3

determining whether an employee might succeed and enjoy being in a given work environment, or fall short and ultimately be let go or choose to leave a particular job or a particular organization.

While workplace P-E fit can be broadly defined as the compatibility between individuals and their work environment, the construct has been operationalized in several different ways. Most often, P-E fit is operationalized as the compatibility between the employee and the organization for which she or he works. However, a recent review of the P-E fit literature has also included research involving person-vocation fit, person-job fit, person-group fit and person-supervisor fit (Kristof-Brown, Zimmerman & Johnson, 2005). Given the large number of workplace features that can influence organizational attitudes and behaviour, there is no surprise that P-E fit research has become quite popular in examining workplace dynamics and interactions.

In addition to the number of ways that the work environment can be operationalized, there are also two distinct subtypes of fit utilized in organizational research: supplementary fit and complementary fit. Supplementary fit occurs when a person and an organization *possess similar or matching fundamental characteristics*. For example, supplementary fit would be high if both the individual employee and the organization possessed and endorsed the same values, such as autonomy or creativity. Complementary fit, on the other hand, exists when one entity *possesses characteristics that the other wants or needs*. Complementary fit would be high if the individual employee possessed skills that the organization required to get a particular job done or if the organization provided rewards or compensation that the individual employee might need or want (Cable & Edwards, 2004; Kristof, 1996).

4

It should also be noted that in addition to the complementary and supplementary approaches to fit, some researchers also make a distinction between demands-abilities fit and needs-supplies fit (Edwards, 1996; Kristof, 1996). Using the demands-abilities approach, fit occurs when *an individual has the abilities required to meet the demands of the organization or job.* In this case, abilities can include any skills, knowledge, time and energy the employee possesses to meet environmental demands and challenges (e.g., role expectations associated with a particular job, project completion speed, etc.; Edwards, 1996). On the other hand, needs-supplies fit is defined as *the correspondence between the needs, desires and preferences of the individual employee and the organizational supplies available to fulfill those needs* (Edwards, 1996; Kristof, 1996). Using the needs-supplies conceptualization, fit might be characterized as the match between a person's values (e.g., autonomy) and the capability of the organization to fulfill those values (e.g., to provide the employee with an autonomous work experience). While needs-supplies fit is quite similar to the complementary fit conceptualization (one entity fills a gap for the other), it differs slightly in that its fit domain is not as broad as complimentary fit which could encompass both needs-supplies fit and demands-abilities fit (Kristof-Brown, et al. 2005).

Although conceptual confusion may result from these slightly varied perspectives on P-E fit, it seems that Kristof's (1996) simplified and integrated definition of person-organization (P-O) fit construct can also be applied to any and all types of P-E fit. According to Kristof (1996), "P-O fit is defined as the compatibility between people and organizations that occurs when (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both." (p.4-5). This definition is

accepted as the guiding principle for most P-E fit research as it takes into account both broad fit categorizations (i.e. complementary/supplementary fit and demands-ability/needs-supplies fit) and integrates fit research alleviating the tendency for different fit traditions to develop independently of one another.

Since the introduction of such a comprehensive definition of P-E fit, researchers have sought to apply the Kristof convention to determine the extent to which different fit theories can and should be integrated to produce models that would reliably predict workplace behaviour. For example, Cable and Edwards (2004) developed three fit models incorporating both supplementary and complementary approaches to P-E fit. The three models included: 1) the Employment Relationship Model, whereby people accept and keep jobs based primarily on the rewards provided in return for their investments of time and talent; 2) the Social Identity Model, whereby people define themselves by the organizations they work in; and 3) the Simultaneous Effects Model which depicts both supplementary and complementary fit as separate processes with different underlying logic and therefore exerting independent, unique effects on employee attitudes.

The Employment Relationship Model tested by Cable and Edwards represents the complementary approach to fit and is operationalized as psychological need fulfillment – the extent to which an employee's needs and desires are met by the rewards of the job. On the other hand, the Social Identity Model represents the supplementary approach to fit and is operationalized as the match between the values of the organization and the employee. Cable and Judge assert that, because people identify with and join organizations if both entities share similar fundamental values, people sometimes define themselves by the organizations they work in. Therefore, one's employment ultimately

contributes to an individual's social identity. Finally, the Simultaneous Effects Model is based on the notion that both need fulfillment (complementary approach) and value congruence (supplementary approach) combine to produce an optimized work experience. Using these three models, Cable and Judge examined the extent to which complementary and supplementary fit variables impacted three occupational outcomes – intent to stay, job satisfaction and organizational identification.

Results revealed that both psychological need fulfillment and value congruence were equally predictive of the occupational attitudes. These findings, which provided support for the Simultaneous Effects Model of fit over the Employment Relationship and the Social Identity Models alone, also demonstrated that both psychological need fulfillment and value congruence played in integral role in explaining employees' work attitudes. Given these findings, Cable and Edwards (2004) were able to conclude that although complementary and supplementary fit were interrelated, both contributed independently to occupational outcomes. The authors seem to support Kristof's (1996) P-E fit definition and also assert that complementary and supplementary fit can and should be integrated into a larger multidimensional framework that is capable of capturing the interrelationships between fit conceptualizations and outcome variables that are important to employees and organizations.

Person-Environment Fit Measurement

In addition to the complementary-supplementary and demands-abilities approaches to fit, another important consideration related to P-E fit conceptualization and operationalization raised by fit researchers is the manner of its measurement. P-E fit can be measured either directly or indirectly (Kristof, 1996). Direct measurement involves

asking the employee explicitly to assess the extent of fit between P and E variables. Using a direct method to assess fit, employees might rate how compatible their values are with those of the organization. As Kristof points out, direct fit measures the employee's *perception* of fit and not whether the employee and organization actually share similar characteristics. Therefore positive occupational outcomes such as increased job satisfaction and commitment are predicted by perceived compatibility between P and E variables (Kristof-Brown et al., 2005).

On the other hand, to indirectly measure fit, researchers utilize input about the person and the organization from two separate sources. The individual may provide a personal profile but the organizational profile is obtained from someone else (e.g., a supervisor or other employee). Actual fit is said to be represented by this indirect type of fit measurement because the compatibility between the individual and the work environment is not being judged by the individual being analyzed (Kristof, 1996). Moreover, because fit is calculated as the difference between individual and environmental scores on a particular dimension (e.g. values, personality or beliefs) the individual and organization may actually share similar fundamental characteristics – representing actual fit.

Since Kristof (1996) discussed the distinction between direct and indirect methods of fit measurement in her instrumental review of the fit literature, the classification of fit measurement has evolved. Recently a more precise distinction has been made between direct and indirect assessments of fit. According to Kristof-Brown et al. (2005) fit measurement can be further distinguished as either:

> (a) *perceived fit*, when an individual makes a direct assessment
> of the compatibility between P and E; (b*) subjective fit*, when

fit is assessed indirectly through the comparison of P and E variables reported by the same person; and (c) *objective fit*, when fit is calculated indirectly through the comparison of P and E variables as reported by different sources. (p. 291)

This distinction is important because perceived fit assessment strategies such as asking an employee, "How compatible do you think your values are with those of the organization?" is conceptually different from indirectly calculating a fit index by assessing what an individual employee might value and what he or she perceives to be the values of the organization. Theoretical developments such as these have allowed organizational researchers to further explore the relation between P and E variables and occupational outcomes by developing more sophisticated research questions that incorporate the implications associated with the various cognitive processes inherent in perceived, subjective, and objective measures of fit. Although the method of measuring fit is of importance to organizational researchers, it is essential first to determine which individual and organizational characteristics will be the focus of the P-E fit investigation.

Types of Person-Environment Fit at Work

One of the more popular methods of operationalizing the individual-work environment interaction is employing a values congruence orientation to person-organization (P-O) fit (Kristof-Brown, et al., 2005). The assumption behind this approach is that values guide behaviour and, because they are enduring aspects of both the individual and organization, values can therefore be applied to fit research to determine how well an employee might succeed in a particular organization (Kristof, 1996).

The values and ideologies that guide and influence *workplace* behaviour have been characterized as an organization's culture (Schein, 1990). According to Alvesson (1993) culture is created during the organization's formative years, by the founder's own

9

beliefs and values. Given that the founder is usually in a position of power and authority, that person can directly influence the employees of the workforce by exerting his or her personal values and beliefs. The values of the founder are then modeled and maintained through the socialization process of new employees. The culture and underlying value system of an organization becomes reflected in the social norms, rituals and routines an organization adopts and endorses (Schein, 1990). This collection of values is somewhat stable as it continues to be passed on to new employees as the organization's established culture. This lends itself to the perspective that, since values are stable (both in the individual and in the organization), value congruence may be a good way to determine whether an individual is suited for a particular work environment.

Although the organization has been the preferred and most studied level of analysis in P-E fit research, other levels of analysis in the workplace have emerged and include person-group and person-supervisor fit. Person-group fit focuses on the compatibility between employees and their work groups or teams, while person-supervisor fit involves the match between supervisors and subordinates (Kristof-Brown et al., 2005). Compatibility between these micro-levels of the work environment and the individual can be assessed using goal congruence, personality similarity or values endorsement as the fit dimension.

Falling under the umbrella of P-E fit at the broadest level of the work environment is person-vocation (P-V) fit. According to Tinsley (2000) one of the earliest applications of fit theory was its use within vocational psychology – the matching of employees to occupations. This practice began in the early 20th century and continues today. Individuals may be matched with occupations through a variety of means such as

personality, interests, aptitude and abilities. Though not examining the direct correspondence between the individual and the organization, the underlying premise of this fit application is that a good fit between the individual and the *occupation* will result in the increased probability of positive outcomes benefiting both the organization (e.g. stable work environment) and the individual employee (e.g. greater adjustment to occupational role and ultimately the organization).

Holland's type theory is one of the most widely applied fit theories used by practitioners and vocational consultants today (Tranberg, Slane, and Ekeberg, 1993). Holland's (1985) theory is based on the congruence between the personality characteristics of the individual and the "personality characteristics" of the work environment. Using Holland's theory, an individual is classified as possessing one of six personality types that have implications for vocational choice and consequent vocational success. These types are arranged in a hexagonal configuration and are labeled: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Work environments are also classified using the same six types. The central assumption of Holland's type theory is that individuals are best suited for environments that are congruent with their personality type. Realistic individuals are defined by Holland as practical problem solvers who enjoy working with things such as tools (e.g. a carpenter or chef). An Investigative person is inquisitive, precise, and likes to work with data (e.g. scientific occupations). On the other hand, Artistic individuals are investigative, creative and intuitive and like to work with ideas (e.g. writers, interior decorators, or actors). Social individuals like working with people and are usually helpful, friendly and outgoing (e.g. counselors, teachers, or clergy), while enterprising individuals like

working with people and data and are usually assertive, persistent, and enthusiastic (e.g. politicians, or business leaders). People who are considered Conventional also enjoy working with data but are also considered organized, efficient, mathematical, and conscientious (e.g. accountants or bankers).

Although Holland's six broad types do provide some information about the individual and the work environment, characteristics associated with people and occupations may be more complex and may not exclusively fit into just one type. Because this is the case, a three-letter code can also be calculated, using the three types that most resemble the individual and the work environment (Holland, 1985). Using this coding system, Holland was able to categorize a vast assortment of occupational titles. Congruence can then be calculated by matching the code associated with occupational title/work environment with the code calculated for the individual. Congruence is then used to predict the likelihood of pursuing a particular vocation and various work-related outcomes such as work attitudes and career longevity (Tranberg et al., 1993; Spokane, Meir and Catalano, 2000).

Though Holland's congruence theory is discussed extensively in the person-environment fit literature, it cannot be used to predict how well an employee might fit with a particular organization (Kristof, 1996). For example, although all accounting jobs may share similar job characteristics requiring specific employee attributes, the culture of an organization where the individual works may not reflect the environment "type" depicted by Holland's theory. As a result, the work environment may impact different employees in different ways. Moreover, job tasks themselves associated with a particular vocation may differ depending on the organization of employment or even the

departments within an organization. Kristof-Brown et al. (2005) point out that there is a subtle distinction between one's vocation and one's job. An employee's job is associated with the tasks performed at work whereas one's vocation is defined more broadly as the occupation or career choice associated with an employee's interests. An organization's culture can impact the type of job or tasks associated with a particular vocation making a vocational title less informative in terms of the environmental context.

Person-job (P-J) fit seems to address some of the conceptual shortcomings and criticisms associated with person-vocation fit. Rather than define a broad occupational type, P-J fit is defined as the match between the individual and his or her job. P-J fit can be measured using either a demands-abilities approach whereby an employee's knowledge, skills, and abilities are compared to the job requirements; or using a needs-supplies approach whereby employees' needs, desires or preferences are compared to what the job can provide (Kristof-Brown, et al., 2005). While this fit conceptualization may seem somewhat similar to P-O fit, there have been a few studies designed to explore the distinct workplace implications of P-J fit research. One such study conducted by Lauver and Kristof-Brown (2001) has been instrumental in demonstrating that the P-J fit construct is a valid level of P-E fit analysis and is conceptually distinct from P-O fit.

In their investigation, Lauver and Kristof-Brown sought to demonstrate the distinctiveness between the two conceptualizations of P-E fit by examining the relation between perceived P-J and P-O fit and various occupational attitudes such as job satisfaction and intent to quit as well as aspects of workplace performance. Researchers hypothesized that because an individual employee could "possess the skills to be competent in a job, yet not share the organization's values and vice versa," (p. 455)

different levels of the P-E fit dynamic may predict different occupational attitudes and behaviours. For example, researchers speculated that P-J fit should be more strongly associated with job satisfaction – a work attitude related to specific aspects of the job, whereas P-O fit should be more strongly related to organizational attitudes such as organizational commitment and intentions to quit. In addition, Lauver and Kristof-Brown hypothesized that individuals' perceptions of P-J fit would be associated with task performance (adeptness with which employees perform activities associated with their jobs such as specific job-related skills and abilities) while perceptions of P-O fit would impact contextual performance (behaviours associated with maintaining organizational effectiveness such as organizational citizenship behaviours).

Lauver and Kristof-Brown found mixed support for their specific research hypotheses stating that P-J and P-O fit would significantly predict separate outcome variables. For example, although P-O fit had a greater influence on organizational commitment (as predicted) both P-J and P-O fit contributed equally to job satisfaction. In addition, P-O fit was significantly related to the organizational level outcome of contextual performance however, P-J fit was not related to job-related task performance. Despite these mixed results, it is important to note that findings also revealed that perceived P-O and P-J fit were weakly related to one another and when controlling for the other, both P-O and P-J fit uniquely impacted job satisfaction and intent to quit. These results support the notion that P-O and P-J fit are distinct constructs and that employees were able to differentiate between fit with their jobs and fit with their organizations.

In discussing the implications of their study, Lauver and Kristof-Brown suggest that, "because in reality people interact with their jobs and organizations on a daily basis, assessing the effects of these two types of fit simultaneously provides a more realistic picture of their influence" (p. 465). In addition to suggesting implications for fit research, the authors also note that these results have implications for the application of P-O and P-J fit in the workplace. For example, the authors encourage dissatisfied employees to consider the distinction between their P-J and P-O fit to help determine whether they should seek a new organization or a new position within the same organization. This suggestion is important as it may prove to be useful for employee retention initiatives.

Person-Environment Fit Research and Workplace Attitudes and Behaviour

All the models mentioned above share the same underlying premise – individuals choose and excel in situations or environments that are similar to, and promote, their self-concept. Although the various fit theories do share this basic principle, results from their respective research endeavors do not equally support this statement.

Despite its dominance within the realm of vocational counseling, Holland's type theory has been criticized in the academic literature. Meta-analyses examining the relationship between congruence and work-related outcomes such as satisfaction have suggested no substantial correlation between these two variables (Spokane et al., 2000; Tinsley, 2000; Tranberg et al. 1993). In particular, Tranberg et al. (1993) examined the results from 27 studies reporting a relationship between Holland's congruence construct and job or academic satisfaction. Mean correlations for satisfaction and congruence were calculated using the information from the 27 studies and results revealed an overall

correlation of approximately .20. After calculating a confidence interval for the correlations, Tranberg et al. found that none of the correlations differed significantly from zero and therefore no significant relationship between the two variables existed.

Holland's theory is not the only fit model that has been scrutinized by organizational and academic researchers. Regardless of theoretical conceptualization, P-E fit research in general has yielded mixed results when attempting to predict work-related outcomes (Kristof, 1996) and has therefore been examined and critiqued quite frequently. For example, Verquer, Beehr, and Wagner (2003) examined the implications of using different fit operationalizations to determine if the type of fit theory employed had a potential moderating effect on its work-related outcome predictive ability. In their meta-analysis, Verquer et al. attempted to examine the impact of four aspects of P-O fit – 1) the nature of the questionnaire measure; 2) the means of fit calculation; 3) the dimension or overarching theory of fit and; 4) questionnaire type; using 21 studies focusing on relations between P-O fit and job satisfaction, organizational commitment, or intent to turnover.

The first moderator – the nature of the questionnaire measure – was categorized as either subjective fit, or objective fit. As is the case with subjective measures, the employee provided an account of both the person and the organization. The objective measures assessed actual fit and therefore used information about the person and the organization from two separate sources.

The second moderator – means of calculation – was also categorized into two groups: difference scores and correlations. Difference scores are obtained by calculating the absolute or squared difference between the personal and organizational measures of

the fit dimension. On the other hand, correlations are obtained by examining the relationship between the personal and organizational importance rankings of the various items or sub-components within the fit dimension.

Fit dimension was categorized into four groups: value congruence, needs-structure fit, goal congruence, and personality congruence. Both supplementary and complementary fit were represented in these four dimensions – value, goal, and personality congruence were identified as the sharing of fundamental characteristics (i.e. complementary fit) while needs-structure fit was represented by the ability for one entity to provide what the other needs or wants such as pay, promotion, and decision making (i.e. supplementary fit). The final moderator, questionnaire type, involved examining the impact of the most popular fit questionnaire (i.e. the Organizational Culture Profile to measure value congruence) on relation between fit and work attitudes.

To examine whether any of the moderators had an impact the relation between P-O fit and job satisfaction, organizational commitment, or intent to turnover, Verquer et al., calculated effect sizes (bivariate correlations between P-O fit and the work-related outcome) for the 21 P-O fit studies. Results revealed a large range of effects sizes that depended on the particular work attitude being predicted. Specifically, the range of effect sizes for P-O fit and job satisfaction was .02 to .74, while the ranges for organizational commitment and intention to leave were .03 to .81 and -.02 to -.63 respectively. Verquer et al. also calculated overall relationships between each of the three work-related outcomes and found that intention to leave had the weakest relationship with P-O fit with a mean effect size of -.18. Mean effect sizes for the other two outcomes seemed to be consistent with findings from Holland's research (though slightly better) and were .28 for

17

organizational commitment and .25 for job satisfaction. Verquer et al. found that the ability to predict work-related outcomes was moderated by the various operationalizations and measurement variables. Specifically, the use of subjective measures, correlations to calculate fit, value congruence as the fit dimension, and a reputable measure of person-organization fit were associated with larger effect sizes.

The results from Verquer et al.'s study have implications for the way in which P-O fit can and should be used to predict organizational outcomes. In particular, these results suggest that if researchers seek to predict and understand particular work attitudes (e.g. job satisfaction or organizational commitment), some fit conceptualizations and methods of measurement and analysis are better than others.

The notion that values congruence may be one of the more effective predictors of work-related outcomes (as shown by Verquer et al., 2003) was supported by a recent study designed to test a multidimensional model of P-O fit. In their study, Westerman and Cyr (2004) employed multiple fit approaches (i.e. values congruence, personality congruence, and work environment congruence) to determine the extent to which P-O fit was a multidimensional construct or whether specific fit approaches could out-predict others on outcome measures such as job satisfaction, organizational commitment, and intent to remain with their employer. The multidimensional model tested by Westerman and Cyr included elements of both supplementary fit, as measured by values congruence and personality congruence, and needs-supplies fit, as measured by work-environment congruence.

Westerman and Cyr (2004) found that values congruence and work environment congruence had the strongest and most consistent impact on the work-related attitudes as

both significantly related to job satisfaction and organizational commitment while personality congruence was not. Their results also revealed that all three operationalizations were related to intent to remain with the organization, though mostly mediated by satisfaction and commitment. These results help to demonstrate the multidimensional nature of the fit construct as the various approaches to fit significantly predicted work-related outcomes using just one data set.

While Verquer et al.'s (2003) and Westerman and Cyr's (2004) studies no doubt help to explain some of the inconsistencies associated with P-O fit research, measurement and dimension variability are only some of the concerns associated with fit research. Researchers have only begun to ascertain some of the flaws associated with P-E fit conceptualization and measurement. Recognition of these flaws has resulted in both academic and applied researchers outlining a number of criticisms associated with P-E fit theory and research. While most criticisms are directed toward Holland's type theory of congruence, fit research using any P-E fit conceptualization could be improved upon by heeding the advice of fit critics.

Criticisms of Congruence and Person-Environment Fit

In their review, Spokane et al. (2000) examined the applicability of Holland's theory to research in vocational and organizational psychology and attempted to delineate various considerations that may help to explain the inconsistent relationship between congruence and satisfaction. Although Spokane et al. acknowledge that well-designed experimental studies may be needed to thoroughly examine the question of whether congruence leads to job satisfaction, they also argue that perhaps the lack of supportive research is caused by something more complex than simply poor research methodology.

To improve fit research, Spokane et al. (2000) suggest expanding the traditional conceptualization of fit by making use of multidimensional designs. For example, congruence may be defined not only as the compatibility of the individual with his or her work role or occupation, but may also be reflected in a number of different dimensions of congruence such as: environmental congruence (the congruence between an individual's personality type and the dominant personality type of his or her coworkers); skill utilization congruence (an individual's beliefs regarding his or her skills are in accord with the actual demands of the job); and/or aspect-based congruence (occupational congruence may be too broad to detect the impact of the job or organization on the individual). Using this multidimensional conceptualization of congruence, the more practitioner-based model (Holland's theory) of fit is beginning to integrate concepts put forth by academic and organizational researchers (e.g. complementary and supplementary fit).

Spokane et al. (2000) also suggest that perhaps because congruence and fit are such complex constructs, they may not always be linear in nature – that is, the relation between congruence and satisfaction may not always be captured by a simple linear regression. Edwards (1993) and Edwards and Parry (1993) support this assertion and further suggest that the current approach to calculating fit, which usually employs a single index reflecting the degree of similarity between the two components, is too simplistic in nature and may fail to control for the independent effects of the employee or the environment on the work-related outcome. Edwards (1993) points out that most congruence or fit research uses an algebraic (X-Y), absolute ($|$X-Y$|$), or squared difference ($(X-Y)^2$) score reflecting the degree of similarity between the employee and

the organization/environment. This score is then used as a predictor of a particular organizational outcome. Because a composite difference score is used in the regression equation, information regarding the specific effects of the environment and the specific effects of the individual employee is lost.

Edwards (1993) cautions that in addition to the loss of information regarding the independent effects of each component, difference scores employing the absolute difference or squared difference also fail to report the direction of the difference, which may prove to be meaningful for researchers (Edward, 1993; Edwards and Parry, 1993). As a result, using this composite difference score to predict a work-related outcome may lead to conceptual ambiguity (i.e. what aspects of the employee or environment contributed to the fit or misfit?). As an alternative to using difference scores in linear regression equations, Edwards (1993) proposes the use of polynomial regression equations. According to Edwards and Parry (1993), "polynomial regression equations avoid problems with difference scores but permit direct tests of the relationships difference scores are intended to represent" (p. 1578).

In addition to employing polynomial regression equations to analyze results it has also been suggested that researchers need to employ well-planned longitudinal designs to explore the potential dynamics of the congruence-satisfaction relationship (Spokane, 2000). Chartrand and Walsh (1999) support this suggestion and assert that organizational psychologists are missing valuable information if research studies only examine the congruence-satisfaction relationship at one point in time. Chartrand and Walsh emphasize that P-O fit is a dynamic concept that should be studied over time.

Given the dynamic nature of P-E fit, it has also been noted that some fit theories fail to account for the fact that job satisfaction is dependent on more factors than simple values, personality, or interest congruence alone (Chartrand & Walsh, 1999). Any P-E fit conceptualization that employs only one dimension of fit, is again too simplistic and that other workplace factors should be considered.

For instance, fit may be an important factor depending on the life cycle of the organization or perhaps during different times of an employee's career stage. When considering an organization's life cycle, it may be the case that high P-O fit results in positive work outcomes such as productivity and cooperation early in its life cycle but may lead to stagnant one-dimensional problem-solving later on (Schneider, Smith & Goldstein, 2001). When considering an employee's career stage, employees may find that they possess specific work-related needs early on in their career stage, and the extent to which those needs are met by the organization (representing needs-supplies fit) may determine whether that employee decides to leave. In looking at only one type of fit at one particular time in an employee's career, fit researchers may have failed to capture the complex nature in which the employee's work-related needs and values evolve as they progress through different stages of their employment.

Suggestions on Improving Fit Research

In light of the above-mentioned criticisms, it seems more and more difficult to meaningfully apply P-E fit to the workplace to understand and predict occupational outcomes such as job satisfaction, work strain and turnover intentions. It appears that in order to determine if and when an organizational researcher or practitioner should use the "fit" construct, the various established criticisms of fit must be addressed in order to

optimize one's chances if appropriately applying fit to predict workplace attitudes and behaviour.

When deciding which fit approach to use, researchers must also determine the extent to which fundamental attributes of an individual can be learned or acquired through socialization or whether potential employees must possess certain characteristics upon organizational membership. For example, are there skills that the employee can learn while on the job? If so, does using a "demands-ability" fit conceptualization make sense theoretically? Perhaps values congruence might be a better way to capture the relation between the employee and the organization in such a circumstance. Values (both individual and organizational) are quite stable and ultimately guide our goals and behaviour, thus the consequences of poor fit for such an attribute may prove to be more detrimental than those for abilities that can be acquired through experience.

In addition to determining the appropriate type of fit operationalization, it is also important to understand the nature of the theoretical model and research question being examined – what organizational outcome is being explored and predicted? Schneider et al. (2000) suggest that some outcomes may be best predicted when using supplementary fit while others can be explained using complimentary fit. For example when the employee and the organization share and focus on the same goals or objectives (an example of supplementary fit), organizational effectiveness may be increased. On the other hand, when the organization provides the employee with a rewarding and fulfilling work environment (an example of complementary fit) job satisfaction may be increased.

The type of organizational outcome being predicted may also impact the type of fit measurement in other ways. For example, Kristof (1996) points out that individual

and somewhat affective outcomes (e.g. satisfaction, commitment or other work-related attitudes) may be best predicted by *perceived* measures of fit. On the other hand, *actual* (or objective) fit may be associated with and predict what Kristof terms *process* outcomes, such as group functioning, or work coordination.

Edwards (1996) provides an early example of a study that examined the predictive ability of different fit conceptualizations on independent occupational outcomes. In his study, Edwards compared supplies-values and demands-abilities approaches of fit to determine which fit conceptualization best predicted two forms of strain at work – job dissatisfaction and tension. According to Edwards (1996), supplies-value fit is represented by the "cognitive comparison of the perceived and desired amount, frequency or quality of conditions or events experienced by the [employee]" (p. 294). On the other hand, demands-abilities fit includes the skills, knowledge, time, and energy an employee possess to meet environmental demands. Results revealed that while both versions of fit were related to both forms of strain, supplies-values fit was more strongly associated with job dissatisfaction, whereas demands-abilities fit was more strongly associated with tension. Edwards explains these results by suggesting that the types of fit used in the study are related to different forms of affect, such that supplies-values misfit may be linked to displeasure while demands-abilities misfit may be linked to physiological arousal, thus leading to different forms of workplace stress and tension. Although there are only a few research studies supporting the assertion that different fit conceptualizations predict different occupational outcomes, Edwards (1996) results and Kristof's classification of occupational outcome types may help organizational researchers determine what can and should be realistically predicted using a given form

24

of P-E fit.   If anything, these results suggest that fit is not a static, one-dimensional

construct and therefore should not be approached as such when applied to organizational

research.

The multidimensionality of the fit construct has been well documented

(Lachterman & Meir, 2004; Verquer et al., 2002; Westerman & Cyr, 2004). Kristof-

Brown et al. (2005) also support the notion that fit can and should be measured using a

multidimensional and consequently multi-level approach. Kristof-Brown et al. suggest

that the workplace-employee interaction can be assessed by using combinations of a

number of fit conceptualizations at a variety of levels of the employee-work environment

interaction including P-O fit, P-J fit, Person-Supervisor or Person-Group fit. In addition

to examining fit at different levels of the work environment, any fit conceptualization can

be operationalized to capture a precise person-environment interaction. For example, P-J

fit can be assessed using a demands-abilities approach whereby employees' knowledge,

skills, and abilities correspond with what the job requires. P-J fit can also be assessed

using a needs-supplies approach whereby employees' needs, desires, or preferences are

met by the jobs or tasks they perform. By using specific fit operationalizations and

outcomes related to the fit dimension being measured, researchers can address the

criticism that fit research up to this point has been oversimplified and has not effectively

captured the complex manner in which the individual and work environment impact one

another.

Cable and DeRue's (2002) study provides a more recent example of specific fit

conceptualizations used to predict specific occupational outcomes. In their study, Cable

and DeRue examined the consequences of employees' perceptions of fit regarding

aspects of their job and organization on various work attitudes and behaviours. Specifically, Cable and DeRue examined three fit *perceptions* – person-organization fit, needs-supplies fit and demands-abilities fit, on organizational variables such as organizational identification, citizenship behaviours, and turnover intentions as well as job- and career-related outcomes such as job satisfaction, career satisfaction and career commitment. Cable and DeRue (2002) reasoned that employees "develop and use perceptions of fit as they manoeuvre through organizational life" and that because fit perceptions are "more proximal determinants of behaviour, perceptions of fit are better predictors of people's choices than the actual congruence between people and environments" (p. 875).

In their study, P-O fit was conceptualized as the perceived match between the employee's values and the culture of the organization, while needs-supplies fit and demands abilities fit were conceptualized as two dimensions of perceived P-J fit – namely the perceived congruence between employees' needs and the rewards and benefits they receive in return for their service on the job and the congruence between an employee's skills and the demands of the job, respectively (Cable & DeRue, 2002). Cable and DeRue noted that demands-abilities fit dominates the P-J fit literature and that little is known about the specific impact of P-J-related needs-supplies fit. As a result, researchers wanted to determine if employees were able to distinguish between the three different fit conceptualizations and whether each fit conceptualization would predict a specific set of occupational outcomes. In particular, Cable and DeRue tested the hypothesis that when the two P-J fit conceptualizations were controlled for, P-O fit would be related to organizational outcomes such as organizational identification, perceived

organizational support, citizenship behaviours and turnover decisions. Researchers also examined the notion that when P-O fit and demands-abilities fit were controlled for, needs-supplies fit would be related to more job-focused outcomes such as turnover decisions, job satisfaction, career satisfaction and occupational commitment. When considering the impact of an employee's perceptions of demands-abilities fit, Cable and DeRue hypothesized that individuals who do not have the ability to perform their jobs are more likely to find other work. Therefore, Cable and DeRue tested the association between demands-abilities fit and perceived occupational commitment, future in-role job performance and future pay raises while controlling for P-O and needs-supplies fit.

Results from a confirmatory factor analysis supported Cable and DeRue's three factor model delineating the three separate conceptualizations of P-E fit perceptions investigated in the study – one P-O fit factor and the demands-abilities and needs-supplies sub-types of P-J fit. When examining how the different fit conceptualizations related to work attitudes and behaviours, researchers found support for their hypothesis that P-O fit perceptions were related to organizational-focused outcomes. Specifically, Cable and DeRue found that perceived P-O was related to organizational-identification, organizational citizenship behaviours and turnover decisions. In addition, Cable and DeRue also found that needs-supplies fit was significantly related to the job- and career-focused outcomes of job satisfaction, career satisfaction and occupational commitment. Demands-abilities fit was not related to the hypothesized outcomes of perceived performance and future pay raises.

These results are important because they suggest that particular occupational outcomes are associated with congruence at a specific level of the P-E fit interaction. For

example, Cable and DeRue found that job and career satisfaction are related to needs-supplies fit – a perceived fit conceptualization at the P-J level of interaction. In addition, researchers found that organizational-related outcomes such as citizenship behaviours were associated with a perceived match between the individual and the organization on a value dimension. These results support the new wave of fit research that conceptualizes the P-E relationship as a dynamic and multilevel interaction.

In addition to demonstrating the level-specific nature of the P-E fit interaction, results from Cable and DeRue's (2002) study also support the notion that employees differentiate between these various levels and conceptualizations of P-E fit at work. What is more, by using perceived fit conceptualizations, results also demonstrate that the mere perception of fit with various occupational dimensions impacts occupational outcomes regardless of actual congruence between the employee and the work environment.

These findings are consistent with research regarding the implications of the psychological contract. According to Bocchino, Hartman and Foley (2003) the psychological contract is defined as the expectations that employees and organizations have about what the other will provide for them in a context of a set of values, beliefs and norms. For example, employees expect certain salaries and benefits for their employment and the organization expects a certain level of employee performance. Therefore, when an employee perceives violations of the psychological contract (i.e. that the organization is failing to uphold their end of the relationship) negative work outcomes can result such as feelings of anger or betrayal (Bocchino et al., 2003). Research has found that employees who perceive high levels of psychological contract violations also report lower levels of congruence between their own values and those of the organization

(Bocchino et al., 2003). Results such as these reveal that employee perceptions and expectations guide workplace attitudes and behaviours in meaningful ways and may be the critical component to understanding how P-E interactions influence workplace stress and occupational health through affective outcomes such as job satisfaction.

One final consideration that must be explored in order to thoroughly evaluate the P-E fit construct, is the question of whether organizational researchers have overlooked more parsimonious explanations when predicting various work-related outcomes. Hesketh and Myors (1997) point out that some jobs may be inherently more satisfying than others (e.g. autonomous work environments in general are related to satisfied employees). Moreover, fast-paced work environments may be fundamentally more stressful no matter who an organization employs. These examples illustrate that certain characteristics of the work environment can impact work-related outcomes for all employees, regardless of fit. Equally important to consider are the direct effects of the individual. It may be the case that particular personality traits are related to satisfaction regardless of work environment, or that some set of values leads to a more committed employee regardless of the employing organization.

Though these "simpler" explanations can be entertained when examining workplace attitudes and behaviour, they are inappropriate when examining the person-environment *interaction* at work. If researchers want to examine the main effects of the individual and/or the organization on work-related outcomes, this type of research should not be considered an interactionist perspective. If scholars are going to adopt a person-environment *interactionist* perspective to explain behaviour, the person and the environment should not be separated (Chatman, 1989; Schneider, 2001). Therefore, in

order to examine P-O fit, which is essentially the interaction between the person and the organization, both elements should be considered. Scheider (2001, p. 145) points out, "the assessment of fit is in keeping with the underlying Lewinian conceptualization of a [person-environment] 'constellation.'" Schneider's assertion, while acknowledging criticisms such as those put forth by Hesketh and Myors, also suggests that studying fit as the interaction between the two components is valuable and is of theoretical importance. Based on this attitude and the Lewinian theoretical position that both the person and the environment influence behaviour, it would seem that there is considerable value in continuing the evolution of fit research by adopting more sophisticated, multidimensional research questions designed to examine the relation between P-E fit and occupational outcomes.

Person-Environment Fit and Career Stage

In keeping with the multidimensional view of P-E fit, is also important to explore the notion that Schneider et al. (2001) raise about when and for whom fit is important. For example different fit conceptualizations may yield positive outcomes for different groups of employees. Career stage may be a variable of interest in determining when fit may be an important factor in predicting occupational outcomes such as job satisfaction and turnover intensions. Career stage can be operationalized as an employee's age or professional tenure (Reilly & Orsak, 1996) and attempts to explain how career development can impact commitment and satisfaction within the workplace (Cohen, 1993). Research regarding the development and implications of career stage has demonstrated that individuals progress through distinct stages throughout their career and have unique psychological needs and career concerns at each stage (Super, 1957). Career

stages develop and progress in consistent ways and are related to various occupational

outcomes such as satisfaction and work stress (Cohen, 1993; Flaherty & Pappas, 2002;

Lynn, Cao, & Horn, 1996; Reilly & Orsak, 1996). Research has also demonstrated that

career stage can moderate the relationship between work-related variables such as job

satisfaction and turnover intentions (Flaherty & Papas, 2002; Menguc & Bhuian, 2005).

When considering perceived fit between an employee and the work environment, the

employee's career stage may play a role in determining whether different fit

conceptualizations impact occupational outcomes such as job satisfaction or commitment.

Depending on one's career stage, an employee may place more importance on specific

work-related needs or expectations. As a result, unique fit conceptualizations related to

aspects of the job or aspects the organization may predict work-related outcomes at

different points in an individual's career. To date, no such research question has been

explored.

Using chronological age and professional tenure as operational measures, four

loosely defined career stages can be examined: the trial/exploration stage;

establishment/stabilization stage; maintenance stage; and long-term maintenance or

disengagement. For age, the trial/exploration career stage lasts until age 30. The

establishment/stabilization stage includes ages 31-45, while the advanced career stages

extend beyond 45 years of age. Using professional tenure, the first career stage is

operationalized as being employed less than 2 years, the second encompasses 3 to 10

years, while the more advanced career stages of maintenance and disengagement begin

after 10 years of employment. Once employees' career stages are identified, it is then

possible to determine the impact of career stage on the predictive ability of different fit

conceptualizations. For example, it may be the case that P-J fit is more predictive of occupational outcomes for newer employees. Cohen (1993) points out that in the early career stages, an individual "attempts to become established in a job that interests her or him, but if this job proves inappropriate, she or he does not hesitate to choose another." (p. 146). In later stages of one's career however, it may be the case that organizational factors rather than job factors influence whether an employee would experience negative work outcomes. Once an employee has gained work and life experience and begins to develop expectations about the work environment, his or her match with on-the-job characteristics or job interests may not be weighted as heavily when considering factors that contribute to satisfaction at work. Instead, factors relating to the organization such as its values, culture or human resources practices may be more influential in affecting occupational outcomes.

In their study examining the impact of work setting congruence on occupational well-being, Lachterman and Meir (2004) found that although occupational congruence (congruence similar to Holland's type theory based on individual interest and occupation type) was related to occupational well-being, work setting congruence (physical characteristics of the work environment such as lighting, size of workspace, whether or not others shared the workplace, etc.) produced even higher correlations with well-being than did occupational congruence. These findings led the researchers to speculate that after a few years of employment, satisfaction is affected less by congruence between occupational choice and interest and affected more by congruence related to organizational characteristics, such as work setting congruence. Researchers also hypothesized that perhaps workers do not immediately expect or require physical

conditions of their organization to be perfectly matched to their needs, but once they've

worked in a particular job for several years, they "feel it more legitimate to express low

satisfaction and to be critical of the work setting in the expectation that it should now be

more suited to their personal preferences," (Lachterman and Meir, 2004, p. 164). These

assertions support the idea that different types of fit impact employees at different points

of their career – specifically that organizational factors may impact employees who are

farther along in their career stage.

If work setting congruence is a surface manifestation of the organization's

underlying culture, then it is feasible to hypothesize that P-O fit may be more predictive

of occupational outcomes such as satisfaction and burnout for veteran employees.

Moreover, it is also possible that congruence between the employee and his or her job is

more influential during the early stages of employment when employees' expectations for

their jobs are newly formed and that P-J fit is less influential later, when the employee

has adapted to the demands of the job or failed to adapt and was let go or decided to

leave.

Person-Environment Fit and Occupational Groups

Although it has been difficult to exhibit through organizational research,

Holland's assertion that positive workplace outcomes depend on the match between the

personality and interests of the individual and environmental characteristics may have

interesting implications for various occupational groups. If different occupational types

can be categorized into groups based on employee personality, interest or aptitude as

Holland's theory suggests, then perhaps different occupational groups are inclined to hold

preferences for specific work environments and organizational cultures.

Kwantes and Boglarsky (2004) conducted a study designed to explore the possibility that different occupational groups would hold different preferences in organizational culture types. The authors examined the expressed culture preferences for six different occupational groups: accounting, management information systems, marketing, production, sales, and secretarial/clerical. Their research was grounded in the theory that subcultures may exist within an organization and that employees can endorse values and engage in behaviours that are specific to the organization but also specific to the employee's role within the organization. In addition to determining whether organizational culture preferences would vary across occupational groups, researchers also sought to determine whether professional occupational groups – those belonging to professional associations and guided by professional training standards (i.e. marketing, accounting and management information systems) would differ from non-professional occupational groups (i.e. sales, production, and secretarial/clerical) in organizational culture preferences.

To measure organizational culture preferences among the six occupational groups, researchers used the Organizational Culture Inventory – Ideal (OCI-I), an instrument designed to determine which behavioural norms employees perceive would maximize motivation and organizational performance. Behavioural norms assessed by the OCI-I are represented by two underlying dimensions – 1) a concern for people versus a concern for task and 2) expectations for behaviours that fulfill satisfaction needs versus expectations for behaviours that fulfill and protect security needs. In addition to these two broad underlying dimensions, the OCI-I is also grouped into three general culture types: 1) Constructive norms, represented by culture styles that promote satisfaction behaviours

such as self-actualizing and achievement behaviours; 2) Passive/Defensive norms, represented by culture styles that promote people-security behaviours such as avoidance and dependent behaviours; and 3) Aggressive/Defensive norms, represented by culture styles that promote task-security behaviours such as competitive and perfectionists behaviours. A profile analysis of occupational group member's preferences for each style was then conducted to examine any potential differences relating to the various research hypotheses.

Results revealed that in general, a significant difference in culture preferences among the six occupational groups emerged; however the differences observed were not in the type of organizational preference, but rather in the degree of strength of the preference. Not surprisingly, Kwantes and Boglarsky found that all six occupational groups preferred the Constructive cultural style to the Passive/Defensive and Aggressive/Defensive styles. Upon closer examination, post hoc analyses revealed several different trends in culture preferences among the different occupational groups. In particular, the researchers found that the profile for Management Information Systems (MIS) employees stood out as being distinctly different from the other employee group profiles and demonstrated more extreme preferences in culture styles. For instance, for Passive/Defensive culture styles, MIS professionals scored significantly lower than other occupational groups.

Other occupational groups emerged as having significantly higher scores on culture type preferences. For example, marketing and MIS employees had the strongest preference for the Self-Actualizing style – a Constructive culture sub-type. In regards to the Aggressive/Defensive culture, results indicated that Production and Sales employees

exhibited the strongest preferences scores. Taken as a whole, these results support the hypothesis that sub-cultures exist in organizations and that a degree of culture preference exists among different occupational groups.

Although a Constructive culture type was preferred by all occupational groups examined in this study, the fact that groups differed significantly in the degree of culture type preference has implications for employees and managers. For example, employees from different occupational groups may have to adapt to their working conditions when immersed in an organizational culture type that is not to the same degree as the culture type in which they feel most effective. If they fail to do so, employees within occupational groups who endorse extreme culture preferences may find they experience more adverse occupational outcomes compared to other, less extreme groups. If this is the case, fit researchers must assess the combination of individual and environmental factors that may contribute to or alleviate the negative consequences associated with this mismatch in order to help employees adapt to their work environment. As the next section will demonstrate, one occupational group in particular seems to be experiencing adverse occupational outcomes at rates higher than those of other occupational groups, and the problem may be due to a mismatch between individual and environmental factors.

Nursing Profession in Crisis

Within the healthcare system nurses have shown to endorse a variety of working conditions that may have implications for workplace attitudes and behaviour as well as occupational well-being. Nurses need to feel valued, and need to work in an empowering, nurturing and safe environment (CNAC, 2002). Since nurses account for

more than half of the healthcare workers in Canada, the need to understand the environmental context in which nurses thrive becomes paramount. What makes this need even more crucial is the fact that the nursing profession is in crisis.

In the late 1990s Canada's healthcare system underwent major restructuring. Hospitals and other healthcare organizations were merging and downsizing in reaction to rising healthcare costs and the governments' focus on fiscal accountability (McGillis Hall, 2005). A number of nurses lost their jobs and as nursing managers were replaced by less costly non-professionals, the nurses who remained faced increased workloads, decreased satisfaction, high job stress and emotional exhaustion (McGillis Hall, 2005). Moreover, the profession itself, especially in Ontario, suffered an additional blow as cutbacks forced nurses to move elsewhere to obtain full time employment. Given the apparent lack of jobs in Ontario and in Canada, fewer students were entering into University nursing programs. Now, the repercussions of students' lack of interest in the profession have left the Canadian healthcare system in a crisis and current governments are anxiously attempting to rectify the problem.

According to recent reports examining the nursing crisis, one of the main concerns facing the healthcare system is the fact that the nursing profession in Canada experiences high attrition rates (CNAC, 2002). As a result of the current shortages, nurses are overworked and are susceptible to high levels of workplace stress and burnout (Priest, 2006). As aging nurses retire, it is becoming more and more difficult to replenish the nursing workforce. While attracting new nurses is important to remedy the current crisis, it is also essential to retain currently employed nurses by understanding and limiting nurse turnover.

Nurse Turnover

New insights have been acquired regarding the scope of the nurse turnover problem. Hayes, O'Brien-Pallas et al.'s (2006) review in particular has established a comprehensive evaluation of a number of factors associated with the turnover crisis, including determinants of nurse turnover, turnover costs and, the impact of turnover on patient care. In their review, Hayes O'Brien-Pallas et al. discuss theoretical models that may help to explain nursing turnover intentions and behaviours. In particular, the authors put forward Hinshaw and Atwood's (1983) model that suggests that nurse turnover is a product of a lack of job satisfaction and a lack of commitment within the workplace. This model states turnover is determined by two types of job satisfaction: 1) organizational, which is associated with work relationships and workplace stress, and 2) professional, which is associated with the nurse's perception of the quality of care and enjoyment resulting from performing the job. In addition to discussing this satisfaction-based model underlying nurse turnover, the authors also reveal that satisfaction appears to be a recurring theme in the nurse turnover literature.

Most often, job dissatisfaction is identified as the reason why nurses leave their jobs. According to Hayes, O'Brien-Pallas et al. (2006), a number of personal and organizational factors can influence the relationship between satisfaction and turnover. Certain demographic characteristics impact the satisfaction – turnover relationship such that low job satisfaction is associated with younger, newly qualified and highly educated nurses. In addition, organizational factors such as employment security, promotional prospects and amount of time for clinical duties are also associated with nurses' satisfaction levels.

In addition to the individual and organizational factors impacting nurses'

satisfaction, discussed by Hayes, O'Brien-Pallas et al. (2006), the Canadian Health

Services Research Foundation has also identified specific aspects of the working

environment that can lead to nurse turnover and other negative work-related outcomes

such as stress and absenteeism. Various workplace challenges such as "heavy workloads,

excessive overtime, unpredictable and inflexible scheduling, health, safety, and security

concerns, inadequate support from management, less-than-collegial relation with

physicians and other healthcare colleagues, and few opportunities for leadership and

professional development," (Priest, 2006, p. 7) have all contributed to the poor working

conditions in which nurses find themselves today. This work environment is

consequently one of the major deterrents to choosing a career in nursing.

Although heavy workloads are a problem for all healthcare systems, the Canadian

Health Services Research Foundation have identified two major factors that are most

responsible for this problem in Canada – increasing population demands for healthcare

and a fewer number of beds to meet this growing demand. In the last ten years, there

have also been a number of Canadian hospital closures and other decreases in health-

related services (Priest, 2006; CNAC, 2002; Hayes, O'Brien-Pallas et al., 2006). As a

result, there are fewer nurses looking after more patients. What compounds this problem

even further is the fact that staffing shortages create stressful work environments, which

in turn discourage new nurses and can cause absenteeism burnout and turnover in veteran

nurses. Priest (2006) reports that in 2002, the absenteeism rate for full-time registered

nurses was 83 percent higher than the general workforce. This is a major cost to the

healthcare system. Nursing administrators need to remedy this problem and improve

working environments that attract new nurses into the profession as well as retain veteran nurses.

However, even despite any efforts to improve work environments, it seems that the nursing shortage crisis may get worse, before it gets better. The Canadian Health Services Research Foundation has reported that the average age for registered nurses is approximately 44.6 and the one in three nurses in Canada is 50 years of age or older and will retire within the next few years (Priest, 2006). This mass exodus of the baby boomer retirees will have profound implications for Canada's healthcare system, especially if nurses retire early at age 55 instead of the more typical retirement age of 65. It was projected that by 2006, nurses seeking early retirement could reach to over 64 000 – approximately 28 percent of the 2001 registered nursing workforce (O'Brien-Pallas, Alksnis & Wang, 2001). If however, veteran nurses are persuaded to retire at 65, instead of at age 55, losses could be substantially reduced to less than half – approximately 30 000 registered nurses (O'Brien-Pallas, et al., 2001). If these older nurses do not delay retirement, the impeding nurse shortage will leave the healthcare system with fewer nurses taking care of an increasing number of patients.

The repercussions of this excessive workload can further lead to increased absenteeism, illness, injury and work-related stress (Priest, 2006). Overworked nurses can also negatively impact patient care and this possibility is demonstrated by a recent study by the Canadian Health Services Research Foundation (Priest, 2006) which found that nurses who worked excessive hours were three times more likely to make on-the-job mistakes such a medication errors. Nurses seem to be aware of this correlation and

perceive that the quality of care *is* affected by their working environment and other organizational factors (Spence Laschinger, Shamian & Thomson, 2001).

Spence Laschinger et al., (2001) have also identified trust as a major factor impacting nurses' satisfaction and commitment. Given that the present state of the nursing workforce is constantly threatened by the prospect of downsizing, nurses experience a certain amount uncertainty about their job security and may distrust management. This lack of trust can then lead to decreases in the quality of patient care. To explore this notion, Spence Laschinger et al. (2001) interviewed a sample of nurses to determine the extent to which specific organizational conditions such as autonomy, control over practice environment, and strong collaborative nurse-physician relationships are related to organizational trust, burnout, job satisfaction as well as perceptions of patient care quality. Researchers tested two models involving the organizational conditions, trust, and burnout – one using satisfaction as an outcome variable, and one using nurses' assessment of quality of care as an outcome.

Results revealed that the organizational conditions of autonomy, control over practice environment, and collaborative nurse-physician relationships affected job satisfaction and quality of patient indirectly in two ways. In both outcome models workplace conditions influenced outcomes indirectly through burnout and organizational trust. Specifically, organizational conditions impacted burnout and organizational trust, which in turn impacted each occupational outcome – satisfaction and quality of care assessment. These results support the notion that certain workplace conditions impact satisfaction and quality of patient care. It is also interesting to note that the workplace conditions examined by Spence Laschinger et al. (2001) can also be viewed as

organizational values or organizational culture as they reflect behavioural norms and underlying organizational values. These results then provide evidence for the contention that certain occupational groups thrive in specific environmental conditions and/or cultures that are matched with their specific needs and/or abilities.

Organizational Culture and Occupational Well-Being

Using a cultural approach to explain and predict occupational outcomes for nurses is not new. For example, Raiger (2005) proposed using organizational values and organizational culture to understand the concept of burnout as it relates to Canadian nurses.

Burnout is broadly defined as a prolonged response to chronic workplace stress. Burnout is also characterized by three specific dimensions: exhaustion, cynicism and inefficacy (Maslach, Schaufeli & Leiter, 2001). The outcomes of burnout have relevant implications for any organization, but key negative outcomes associated with burnout have important implications for healthcare workers (or employees in similar helping professions), as these outcomes can impact the quality of services and care delivered to clients. In particular burnout is associated with absenteeism, turnover and other forms of job withdrawal (Maslach et al., 2001). Withdrawal can also lead to depersonalization, or behaving in an unfeeling or impersonal manner to clients (Raiger, 2005). It is not difficult to understand how these types of outcomes can impact a nurse's performance and interpersonal relationships at work. There are also negative individual health outcomes associated with burnout. According to Maslach et al. (2001), burnout is associated with mental dysfunction such as anxiety, depression, and a decrease in self-esteem. Moreover, individuals who experience burnout are less able to mentally prepare

and cope with chronic stressors. This in turn may lead to decreased immune functioning and an increase in physical symptoms associated with chronic stress.

Whether or not an employee experiences burnout may depend on a number of organizational characteristics – characteristics that are shaped by the organization's underlying value system. Maslach, et al. (2001) have identified some of these characteristics as: the existence of hierarchies (with doctors at the top followed by nurses); unfair allocation of resources or space; and violations of the psychological contract. When employees hold expectations of what is fair (e.g. quantity and/or quality of work is rewarded and/or compensated) and an organization violates those expectations (e.g. employees give more for less), employees are more likely to experience burnout because these violations "erode the notion of reciprocity, which is crucial in maintaining well-being" (Maslach, et al. (2001, p. 409). When using this psychological contract explanation as the possible root of burnout, it is clear that elements of an organization's culture can interact with individual expectation and impact work-related attitudes and behaviours.

Relying heavily on organizational culture theory, Raiger (2005) supports this notion and points out that because nurses hold their own values and have their own work ethic, "the institutions where they are employed, and the profession of nursing itself are some of the cultures that need to be known to predict the health of the nurse and the risk for burnout" (p. 72). It is therefore appropriate to determine the extent to which a perceived match in organizational culture or aspects of the job impact a nurse's work attitudes and/or occupational health.

In a direct attempt to determine whether organizational characteristics impact burnout, Happell, Martin & Pinikahana (2003) compared two sub-types of psychiatric nurses on their self-reported levels of burnout and job satisfaction – those who were employed in a forensic setting versus those who were employed in a more mainstream setting. The authors reasoned that because the forensic setting is particularly stressful (i.e. nurses must deal with aggressive patients and the constant threat of physical violence), forensic psychiatric nurses would experience higher rates of job dissatisfaction and burnout than psychiatric nurses who worked in a mainstream mental health institution. Contrary to predictions, forensic nurses experienced higher levels of job satisfaction and lower levels of burnout compared to mainstream nurses. Even though the workplace setting for forensic nurses is dangerous and unpredictable, nurses who worked in this environment felt more comfortable with their nursing care and reported feeling less emotionally exhausted and depersonalized than their mainstream counterparts.

This study has important implications for nursing managers and administrators. Firstly, this study demonstrates variability within the nursing profession. Nurses in the different work groups did not report the same levels of job satisfaction and burnout. Rather, levels of these variables depended on the work environment. In addition, because results from this study were not in the expected direction (i.e. nurses working in the more stressful environment did not experience higher levels of burnout and dissatisfaction) these findings suggest that it is the fit or match between nursing employees and their working environment that may impact occupational outcomes such as satisfaction and burnout. Given that nurses in the forensic (and more stressful) environment did not

report experiencing higher levels of negative outcomes reveals that it is not the direct effect of the environment that influences workplace attitudes and behaviours, but perhaps it may be the match between the nurses' needs and/or abilities and the supplies and/or demands of the work environment that influences occupational outcomes. It may be the case that forensic nurses enjoy the fast-paced excitement associated with their work environment. It may also be the case that mainstream psychiatric nurses are not challenged to the extent of their professional abilities. It is only recently that researchers have begun to recognize the value in exploring the relation between the person-environment interaction and occupational outcomes as they relate to the nursing profession. Results from Happell et al's (2003) study reveal that a one-size-fits-all solution applied to nurses working in a variety of contexts may not rectify the negative occupational outcomes associated with their profession – namely work tension and attrition.

Using Fit to Predict Nursing Occupational Outcomes

Using both individual factors and environmental factors to explain nursing occupational outcomes is a relatively new venture for organizational and occupational health researchers. It seems as though researchers examining the antecedents and consequences of burnout and work strain are now realizing that both environmental and individual factors combine to contribute to the experience of career fatigue and turnover in helping professions such as nursing (Maslach et al., 2001; Raiger, 2005). However, despite the fact that researchers have identified interactional P-E fit theory as a plausible avenue for examining nurses' workplace attitudes and behaviours, very few research studies have actually examined the relation between organizational and individual

variables that may combine to influence occupational health and well-being in the nursing work context.

Allen and Mellor's (2002) investigation is just one of few nursing studies that explore both individual and situational factors that lead to the experience of work tension. In their study, Allen and Mellor discuss that because not all nurses in the same environment suffer from burnout and work tension, individual factors must play a role in its development. To examine the potential interaction between individual and situational factors on nursing occupational outcomes, researchers examined the role of personal control and care-type setting on nurses' self-reported levels of burnout. According to Allen and Mellor (2002, p. 907), personal control impacts coping behaviour "because appraisals of stressful situations are affected both by people's general beliefs about control and by their situational assessment of control." Therefore the authors proposed that people adjust their control style depending on the conditions and limitations of the work setting. In order to successfully adapt to stressful situations, it is important to achieve balance between internally and externally directed forms of control. Two types of control were examined in the study – 1) primary control, whereby people exert influence over the external environment such as problem focused coping, and 2) secondary control, whereby people minimize psychological distress by exerting influence over their internal state, such as reframing stressors or other emotion-focused coping strategies. In addition to these personal factors, the impact of the type of care setting in which the nurses worked was also examined. Researchers included in their sample nurses who worked in either acute or chronic care settings. Allen and Mellor proposed that a given type of control style would be best suited for a particular care setting and

would protect the nurse from the effects of burnout. For example, hopeful nurses, or nurses that successfully reappraise workplace stressors (representing secondary control) may be best suited for chronic care settings whereas nurses who do not possess this type of control or coping style would otherwise be exhausted.

Allen and Mellor proposed that when neuroticism is controlled for, nurses' levels of primary and secondary personal control would influence the experience of burnout depending on whether the nurse worked in an acute or chronic care environment. In particular, researchers hypothesized that when neuroticism was taken into account, secondary control (and not primary control) would be negatively correlated with exhaustion and cynicism but would positively predict professional efficacy for chronic care nurses. For acute care nurses on the other hand, it was hypothesized that primary control (and not secondary control) would be negatively correlated with exhaustion and cynicism but would positively predict professional efficacy.

Results did not entirely support both sets of hypotheses. While primary control was positively associated with professional efficacy, in acute nurses, it was not significantly related to exhaustion and cynicism. For chronic care nurses, secondary control was not significantly related to any of the burnout variables. Although results for specific research questions were not entirely as anticipated, results also revealed no significant differences between chronic care and acute care nurses on measures of burnout – despite the fact that previous research claimed that chronic care settings are more stressful and emotionally draining than acute care settings (Maslach, 1986, as cited by Mellor & Allen, 2002). Based on this finding, the authors were able to conclude that burnout affected nurses regardless of the particular care setting in which they worked;

however, personal control was not found to be an equalizer when comparing burnout symptoms of chronic care nurses with their acute care counterparts.

To explain their findings, Mellor and Allen also discussed that analyses revealed that both types of control were significantly correlated, suggesting that these two constructs were not completely orthogonal. The authors also contended that their lack of significant findings may be because nurses in the present sample utilized both types of control intermittently or experienced both types of care settings from time to time, rather than experiencing the personal aspects of control and situational aspects of care setting independently and exclusively. Even though results did not confirm the research hypotheses tested by Mellor and Allen, this research study is an interesting example of the use of interactional psychology to explain nursing occupational outcomes and proposed an original and innovative approach to understanding potential causes of burnout. Given that the lack of results in this study may have be due to the confounding inter-relatedness of the independent variables, future research can use this methodology with more distinct variables that relate to a nurses' work experience to determine the extent to which individual and workplace factors combine to influence behaviour.

In an effort to apply aspects of fit theory to the nursing crisis, Verplanken (2004) examined the relation between value congruence and job satisfaction among nurses in a surgery ward. In addition, Verplanken also examined the potential effects of time pressure (whether nurses had sufficient time to complete work-related duties) and the nursing ward's social climate (chatting habits among colleagues) on the relationship between values congruence and satisfaction. Values congruence was captured using the Competing Values Framework – thirty-two values representing four value categories

including: Human Relations values (e.g. empowerment of employees to act, trust and openness), Open Systems (e.g. innovation and change, creative problem solving, new ideas), Internal Process (e.g. dependability and reliability, maintaining rules and regulations), and Rational Goal (e.g. setting objectives, getting the job done). For each of the thirty-two value statements, participants indicated the extent to which each value characterizes their ward (indicating organizational culture) and also the extent to which each value is important to them (indicating individual value preference). To measure congruence researchers calculated difference between organizational and individual value scores. Verplanken hypothesized that a discrepancy in values congruence would lead to negative work attitudes and consequently lower job satisfaction. It particular, it was expected that values congruence, social climate and time pressure would impact job satisfaction via their influence on ward attitudes. Using a path model, Verplanken examined the relation among these variables. Results revealed that although ward attitudes were impacted by time pressure and chatting habits, one particular subtype of values was related to ward attitudes and job satisfaction. Results revealed that employees who experienced higher levels of Human Relations (HR) values congruence were more likely to hold positive ward attitudes and experience higher levels of job satisfaction than those whose HR values preferences were not matched with the actual HR values of the organization. These results suggest that fit is important in predicting job satisfaction and may be a factor in predicting which nurses experience workplace tension and burnout.

Although chatting habits and time pressure were found to be significantly related to ward attitudes, nursing participants in Verplanken's study were all employed in the same hospital. Reproducing these results may be difficult given that the correlations

49

obtained in Verplanken's study may be specific to the culture of the particular organization and therefore may not be generalizable to different hospitals or nursing environments other than the hospital setting. Though an important first step in examining the multidimensional nature of the P-E interaction in the nursing context, research attempting to examine nursing workplace attitudes and behaviour can be improved upon by examining a variety of workplace contexts in which nurses are employed. It is then possible to determine the extent to which values congruence predicts satisfaction and burnout for a variety of nurses. Also by incorporating other types of fit dimensions such as P-J fit and not just P-O fit or values congruence, it is possible to determine if different types of fit are predictive of work-related outcomes for different groups of nurses. By distinguishing between the types of misfit that a nurse may be experiencing, it is then possible to determine whether that employee may benefit from seeking a new job in a different organization, or whether the employee should move internally. Given that P-E fit is a multidimensional construct, it is then possible to tease apart the effects of different types of fit at different levels of the P-E interaction. Nursing administrators can then better understand how to increase or maintain levels of job satisfaction thereby minimizing the effects of work tension and dissatisfaction.

Present Study

Nursing human resources experts recommend that improving the quality of work life may be a practical solution for long-term retention of nurses (Priest, 2006). P-E fit theory is an appropriate avenue to explore the ways in which individual and workplace factors combine to impact a nurse's quality of life at work. The present study extends current fit literature by using a multidimensional approach to predict satisfaction,

commitment and work strain in a sample of Canadian nurses. In addition, the present study examines how P-E fit may be related to nurses' job satisfaction, organizational commitment, career commitment, work strain and turnover intentions as these variables have been linked to higher levels of absenteeism, burnout and turnover (Hayes, O'Brien-Pallas, et al., 2006; Priest, 2006). Unlike Verplanken's (2002) research that used only one type of fit conceptualization to examine how nurses interact with their work environment, the present study made use of two P-E fit conceptualizations at two levels of the P-E interaction. Cable and DeRue (2002) found that both psychological need fulfillment and values congruence played a role in explaining employees' work attitudes. Given these results and Lauver and Kristof-Brown's findings that both P-J and P-O fit contributed to employees' job satisfaction, the present study applied both perceived P-J and P-O fit to predict nurses' work strain, job satisfaction, organizational and careers commitment and turnover intentions.

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 on a particular dimension 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 tension 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 tension 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. The underlying model associated with these hypotheses is therefore multidimensional and takes into account the possibility that different types of fit at different levels of the P-E interaction may impact employees at different points in time. In doing so, this model addresses criticisms associated with past fit research for being too simplistic in nature and failing to capture the dynamic nature of the P-E interaction at work. Moreover, the present study also bridges 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.

CHAPTER II

Method

P-E fit is a construct that can be measured in numerous ways. Given that the method of fit conceptualization and methods of measurement can yield mixed results depending on the work-related outcomes being examined, it is important to conceptualize the person-environment interaction in a way that would maximize the predictive ability of the fit interaction while making sense theoretically. P-E fit theory states that individuals may fit with their environment according to the degree of congruence between P and E variables on fundamental characteristics, as is the case with supplementary fit. However, individuals may also "fit" with their environment by having something unique to contribute, as is the case with complementary fit. An employee can be "mismatched" with his or her organization on certain characteristics but perceive fit because he or she fits in by being different or bringing something unique, making the organization more adaptable through its diversity (Piasentin & Chapman, 2006). If one's sense of fit can be determined by either complementary or supplementary fit, it is important that a perceived fit measure is used in order to determine whether P-E fit impacts job satisfaction and occupational well-being rather than a more objective measure of actual fit.

Moreover, Kristof (1996) suggested that affective outcomes such as job satisfaction are likely to be linked to *perceptions* of fit rather than actual fit between the employee and the job or organization. Using perceived measures of fit seems especially relevant to examine the impact of the fit construct with nursing employees because of the over-representation of job dissatisfaction within the nursing profession compared to other occupational groups (Priest, 2006).

It should also be noted that because perceived assessments of P-E fit do not involve two separate measures of the person and the environment, there are no difference scores to calculate. As such, perceived fit scales are not subject to the same mathematical constraints as objective fit assessments and therefore do not require a revised polynomial regression analysis to interpret the results as Edwards (1996) recommends. Therefore, perceived fit between the individual employee and work-related variables will be used to determine the extent to which different types of fit impact nurses at different stages in their career and whether these interactions influence job satisfaction, commitment and work tension.

Participants

English-speaking Canadian nurses were sampled for the present study. To be included in the study, each nurse must have been registered with a provincial nursing college, association or council, and currently working as a nurse. Nurses from all Canadian provinces and territories were recruited using online services (e.g. association websites and listervs) provided by professional nursing associations.

The sample consisted of 235 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.

Materials

Predictor Variables: Perceived Person-Organization and Person-Job Fit

P-O fit was measured using a five-item, perceived values congruence measure adapted from Cable and Judge (1996) and Lauver and Kristof-Brown (2001). *P-J fit* was measured using the perceived fit measure developed by Lauver, K., and Kristof-Brown (2001), which encompasses both supplies-values, and demands-abilities aspects to P-J fit. Respondents indicated their level of agreement with each statement on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree* for both Person-Organization and Person-Job fit scales. Prior to responding to the set of questions for each fit domain, participants were reminded to consider only aspects of the organization when considering

P-O fit, and only aspects of their job when considering P-J fit. Their organization was defined as the entire institution for which they work, while their job was defined as the tasks they are expected to accomplish in exchange for employment as well as the characteristics of those tasks (Kristof, 1996). Higher mean scores on each of the P-E fit questionnaires are associated with higher levels of perceived fit. The Cronbach's α for the P-O fit and P-J fit measures were .94 and .86 respectively.

Two open-ended questions were also included with the fit measures. Since a perceived fit orientation was used for both P-O and P-J fit measures, it was important to ask nurses which separate organizational and job characteristics they perceived to be most important when determining their fit with their organization and their job. The open ended organizational question was included after the P-O fit questionnaire while the open-ended job question was presented after the P-J fit questionnaire. Response rates differed for each of the open-ended questions. Most participants (92.3%, n=217) responded to the open-ended question about important job characteristics, while slightly fewer nurses (81.3%, n=191) responded to the open-ended question regarding their organization of employment.

Moderator Variable: Career Stage

Career stage was operationalized by using the participant's age. According to Cohen (1993) tenure-related career stage is based on one's experience in a given profession, organization, or in a given job. On the other hand, career stage as operationalized by age is influenced by the career stage model and is affected not by specific organizational or job factors, but instead by external factors relating to one's stage of life development (Cohen, 1993). Using age as a proxy for career stage seemed

appropriate for the present study because age is an important factor in the nursing

shortage crisis in Canada – aging nurses are retiring in greater numbers than the rate at

which they are being replaced. In addition, by using age as a proxy for career stage, one

is also indirectly tapping into tenure-related career stage as age is highly correlated with

professional tenure in this sample, ($r=.90$, $p<.01$). Although career stage has no single

definition, three career stages based on the nurses' age (in years) were determined using

the stages outlined in the career stage literature and the guidelines suggested by Morrow

and McElroy (1987). The exploratory and early establishment career stage (those

roughly in their first two stages of their career) consisted of nurses who were 21-35 years

of age. The establishment career stage consisted of 36-44 year olds, while the

maintenance stage included nurses who were 45 years of age or older. In the current

sample, the majority of nurses (54%) were in the maintenance stage of their career, while

26% were in the establishment stage and 20% were in the exploratory and early

establishment stage of their career. Although, from a statistical standpoint, it is not

recommended that researchers convert naturally occurring continuous variables into

categorical variables (Holmbeck, 1997), age was transformed into these broad career

stages in order to capture a concept that was consistent with the literature (e.g. Cohen,

1993, Ostroff & Rothausen, 1997, Reilly & Orsak, 1991, and Super, 1957) and that also

permitted the testing of the hypotheses related to early and late career stage nurses.

Outcome Variables: Job Satisfaction, Commitment and Occupational Well-Being

    Job satisfaction was measured using Bacharach, Bamberger, & Conley's (1991)

Job Satisfaction Relative to Expectations scale. This five-item measure assesses the

degree of agreement between the perceived quality of job aspects and the employee's

expectations. This measure was chosen over other satisfaction measures because of its comparability to the psychological contract. This conceptualization of satisfaction seems particularly relevant if perceived fit between aspects of the job and the employees' needs and abilities prevent expectations from being fulfilled. Participants indicated their extent of satisfaction with aspects of their jobs on a 7-point scale ranging from 1 *extremely dissatisfied* to 7 *extremely satisfied.* A higher mean score on the measure indicates a higher level of job satisfaction relative to expectations (Cronbach's $\alpha = .93$).

Organizational commitment was assessed using Reilly and Orsak's (1991) adaptation of Allen and Meyer's (1990) scale that was modified for use within the nursing profession. As with Allen and Meyer's scale, Reilly and Orsak's adaptation encompasses three dimensions of organizational commitment – 1) affective commitment, or the employee's emotional attachment, identification and involvement in the organization; 2) continuance commitment, based on the employee's necessity to stay with the organization; and 3) normative commitment, or the sense of duty or obligation to the organization and the desire to remain employed there because it is the right thing to do. Participants indicated their extent of agreement with 31 organizational commitment items using a 7-point scale ranging from 1 *strongly disagree* to 7 *strongly agree.* A higher mean score on each of the commitment subscales indicates a higher level of that particular type of organizational commitment (Cronbach's $\alpha = .81$).

Career commitment was measured using Reilly and Orsak's (1991) adapted version of Blau's (1988) career commitment scale. This scale contains seven career commitment items adapted for the nursing profession. Participants indicate their extent of agreement with the various statements on a 7-point scale ranging from 1 *strongly*

disagree to 7 *strongly agree*. A higher mean score suggests a higher level of commitment to the nursing profession (Cronbach's α= .92)

Work tension was assessed using an adaptation of House and Rizzo's (1972) Work Tension Scale. This measure taps into employees' perceived psychological or psychosomatic symptoms associated with tension experienced at work. Participants were asked to indicate their extent of agreement with a variety of work tension statements on a 7-point scale ranging from 1 *strongly disagree* to 7 *strongly agree*. A higher score mean indicates a higher level of experienced work tension (Cronbach's α = .87).

Work-related depression, anxiety and irritation were also assessed as three other dimensions of employee stress and strain. Employees completed Caplan, Cobb, French, Van Harrison, and Pinneau's (1975) scale indicating the extent to which they experience work-related depression, anxiety and irritation. Responses were obtained on a 4-point Likert scale where 1 = *never or a little of the time*, 2 = *some of the time*, 3 = *a good part of the time*, and 4 = *most of the time*. A higher mean score is associated with a greater level of experienced employee stress and strain (Cronbach's α =.89).

Turnover intentions were examined using three items: Have you looked for another job in the last year? Are you currently looking for another job? Do you expect to be looking for another job in the next year? Responses are obtained on a 4-point Likert scale ranging from 1 = never, 2 = some of the time, 3 = a good part of the time 4 = most of the time. Higher mean scores on this scale indicate higher levels of turnover intentions (Cronbach's α = .90).

Procedure

Approval to conduct the study was obtained from the University of Windsor Research Ethics Board. Canadian nurses were recruited through nursing association websites and listservs. A letter of information was sent to approximately 40 nursing associations outlining the purpose of the study and its procedure (See Appendix A for a list of the nursing associations). The nursing associations were asked to provide a link to the study on their websites and/or allow a description of study and its web link to be sent to association members via email. Once the nurses selected the link embedded in the email or within their association website, they were directed to the study website set up by the University of Windsor's Information Technology Department.

Potential participants would first read the online letter of information (see Appendix B for Letter of Information). Once participants read the information and understood the study's purpose and procedure, participants were asked whether they wished to continue with the study and if willing, the participant would click on the phrase, "Yes, I would like to participate" at the bottom of the page. After agreeing to participate, an online version of the questionnaire opened and participants answered each item using the scale provided (see Appendix C for questionnaire). Completed questionnaires were anonymously submitted by selecting the "Submit" button at the end of the survey. Data from the completed surveys were automatically transferred into an existing database and stored on the University of Windsor's secure server. The survey was also made available in hard copy for those potential participants who did not wish to complete the survey online. Two copies of the survey were mailed out to participants and both were returned to the University of Windsor's psychology department via self-

addressed stamped envelopes. Nurses did not receive compensation for their

participation.

CHAPTER III

Results

Overview of Analyses

The direct impact of career stage and P-E fit variables were explored to determine their influence on the nurses' job satisfaction, commitment, work strain and turnover intentions. In addition, multiple regression analyses were conducted to determine the extent to which P-O and P-J fit uniquely predicted each of the dependent variables. In order to test the specific hypotheses of the present study, hierarchical regression analyses were used to examine whether career stage moderated the relationship between P-J and P-O fit variables and measures of job satisfaction, commitment, work strain and turnover intentions. Eight separate regression analyses were conducted – one for each of the dependent variables of interest. The predictor variables of career stage, P-J and P-O fit were all entered into the first step of the regression analysis, followed by the terms representing their two-way interactions (early career stage x P-J fit, early career stage x P-O fit, late career stage x P-J fit and late careers stage x P-O fit). Regression coefficients associated with the interaction terms were tested for significance. In order to test the specific hypotheses of the present study, the regression coefficients associated with the early career stage x P-J fit and late career stage x P-O fit interactions would be of particular interest.

For all regression analyses, the assumptions of multicollinearity, normality, linearity and homoscedasticity were examined using the intercorrelations of the independent variables as well as the scatterplot of the standardized residuals for each analysis. Data from the present study did not violate the aforementioned assumptions of

regression analysis however, influential outliers with standard residuals greater than 3.3 were identified using the $p<.001$ criterion for Mahalanobis distance as well as Cook's d. Such instances are identified where applicable.

Career Stage

Demographic and tenure-related characteristics of the nurses in the various stages of their careers are summarized in Table 1. In addition to their age and 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.

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 one-way between-groups analysis of variance using a Bonferroni adjusted alpha level of .005 (.05/10), was conducted to explore any differences between the various groups of nurses. Only one of the analyses emerged as significant. Results revealed a significant difference in turnover intentions among the three groups of nurses $[F(2, 232)=7.17, p =.001]$. 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.

Person-Environment Fit

The relationship between the two P-E fit variables and the eight occupational outcomes was investigated using Pearson product-moment correlation coefficients. Results revealed significant correlations among almost all dependent variables and the fit measures. Summaries of the bivariate correlations among all the continuous variables are outlined in Table 3. P-J and P-O fit were significantly, negatively related to work tension, turnover intentions and work-related depression, anxiety, and irritation and were significantly positively related to measures of job satisfaction, affective commitment, normative commitment and career commitment. There was a significant, albeit small, negative correlation between P-O fit and continuance commitment. Only the relationship between continuance organizational commitment and P-J fit did not emerge as significant.

The strongest relationship was that between P-J fit and job satisfaction indicating that these two variables share approximately 58.5% of their variance. Other large correlations were observed between both P-J and P-O fit variables and work-related depression, anxiety and irritation as well as P-O fit and affective organizational commitment. It should also be noted that P-J and P-O fit were moderately related constructs and shared approximately 27.8% of their variance.

Unique Impact of P-O and P-J Fit

In order to examine the unique predictive ability of P-O and P-J fit, separate multiple regression analyses were conducted on each of the outcome variables. One influential outlier was detected when predicting each of the following dependent variables: job satisfaction, career commitment and work tension and as a result, one

separate outlier was removed from each analysis. The results of the regression analyses are summarized in Table 4. In all but two analyses (predicting continuance and normative commitment), P-O and P-J fit each significantly predicted a unique proportion of variance in the dependent variable. When considering job satisfaction, P-J fit emerged as the better predictor and uniquely explained 33% of the variance, while P-O fit explained approximately 3% of the variance. On the other hand, P-O fit emerged as the better predictor of affective organizational commitment and accounted for 22% of the variance compared to only 3% attributed to P-J fit. Although both P-O and P-J fit significantly predicted career commitment, each only uniquely explained 6% and 2% of the variance respectively. Both P-O and P-J fit emerged as significant predictors of work tension and both variables uniquely explained 7% of the variance in work tension. P-J fit better predicted work-related depression, anxiety and irritation and explained approximately 11% of the variance, while P-O fit accounted for 7% of the variance. P-J fit also accounted for 12% of the variance in turnover intentions compared to only 1% attributed to P-O fit.

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: 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. To compute

these interaction terms, two separate dummy coded variables representing early career stage and late career stage were created. The first dummy coded variable represented early career stage, therefore nurses in their early career stage received a value of one, while nurses in their middle or late career stage received a value of zero. The second dummy coded variable represented nurses in their late career stage, therefore nurses in their late career stage were represented by a value of one and nurses in their early or middle stage of their career received a value of zero. To create interaction terms each of the two dummy coded variables were multiplied by participants' P-J and P-O fit scores. Before this process however, both P-J and P-O fit scores were centered (converted to deviation scores so that each variable had a mean of zero) (Tabachnik and Fidell, 2006) to reduce problems of multicollinearity. These four interaction terms, along with the two career stage dummy coded variables and the two centered fit variables were all entered into multiple regression analyses for each of the eight occupational outcome variables.[1] When predicting job satisfaction, affective and continuance organizational commitment, two influential outliers were identified in each analysis and were subsequently removed.

Job Satisfaction

Table 5 outlines the results of the regression analysis using job satisfaction as the outcome variable. Two significant interactions were obtained – one between early career stage and P-J fit and one between late career stage and P-O fit. Plots of the interactions are displayed in Figures 1 and 2. To explore the nature of the interaction, high and low levels of P-J and P-O fit were calculated as one standard deviation above and one

---

[1] Due to sample size and power limitations, the results reported in the following sections include data obtained from nurses in all three career stages. Hierarchical regression analyses were also run having removed the mid-career stage nurses in order to reflect the specific hypotheses involving the early and late career stage nurses only. Results comparing early and late career stage nurses revealed the same general trend of interactions as reported using all groups of nurses.

standard deviation below the mean of P-J and P-O fit scores respectively and entered into the separate regression equations.

In Figure 1, it can be seen that job satisfaction scores remain surprising stable for nurses in their late career stage across high and low levels of P-O fit. Instead, job satisfaction scores for nurses in their early and mid-career stage seem to vary as a function of perceived P-O fit, namely that predicted job satisfaction scores are lower at low levels of P-O fit and higher and high levels of P-O fit. A simple slope analysis using online computation tools (Preacher, Curran & Bauer, 2006) probing the interaction reveals that the slope associated with early and mid career stage nurses (simple slope =.33) does in fact differ significantly from zero (p<.001) whereas the slope associated with late career stage nurses does not (simple slope = .08, ns).

In Figure 2, it is apparent that job satisfaction scores for all nurses differ depending on whether they perceive high or low P-J fit. When P-J fit is high, early, mid and late careers stage nurses' predicted job satisfaction scores are also high, and when P-J fit is low, so too is their predicted job satisfaction. A probe of the interaction using a simple slope analysis reveals that although both career stage groups' simple slopes differ significantly from zero, the simple slope associated with early career stage nurses is more strongly positive (simple slope = 1.28, p<.001) compared to that of the mid- and later career stage nurses (simple slope = .70, p<.001). This finding indicates a greater difference between early career stage nurses' scores across high and low levels of P-J fit compared to mid- and later career nurses and supports the hypothesis that P-J fit would impact newer nurses more so than it would nurses in their later career stages.

Organizational Commitment: Affective, Continuance and Normative Commitment

Results for the hierarchical regression analysis predicting affective commitment are summarized in Table 6 and reveal a significant interaction involving P-J fit and early career stage. The interaction is depicted graphically in Figure 3. For early career stage nurses, predicted affective commitment scores 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. The simple slope analysis reveals a significant simple slope for early nurses (simple slope = .55, $p<.001$) but not so for nurses in later stages of their career (simple slope = -.07, *ns*). This finding also supports the hypothesis that P-J fit would influence newer nurses' affective commitment scores but not the scores of veteran nurses. No significant interactions were obtained for the remaining organizational commitment variables.

Career Commitment

Table 7 presents the results for hierarchical regression analysis involving career commitment and the dependent variable. The interaction involving early career stage and P-J fit emerged as significant and is graphed in Figure 4. Early career stage nurses' career commitment scores increased from low to high levels of P-J fit, whereas career commitment scores for the other career stage nurses remained roughly the same. The simple slope analysis again revealed that the slope associated with the new nurses' regression line was significant (simple slope = .84, $p <.001$) whereas the simple slope associated with the remaining nursing groups was not (simple slope = -.11, *ns*) adding further support to the hypothesis that P-J fit would impact new nurses' work-related outcomes but not necessarily those of veteran nurses.

Work Strain: Tension, Depression, Anxiety and Irritation

When considering work-related depression, anxiety and irritation as a dependent variable, a significant interaction was obtained regarding early career stage and P-J fit (see Table 8 for regression results). Figure 5 displays the interaction graphically. As was the case with 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. Simple slope analysis confirmed a significant simple negative slope for newer nurses (simple slope = -.36, $p<.001$) but not so for mid-career and veteran nurses (simple slope = -.06, *ns*). No significant interactions were obtained when using work tension as the dependent variable.

Turnover Intentions

Three significant interactions were obtained for nurses' predicted turnover intentions (see Table 9 for regression summary). Although the interaction between early career stage and P-J fit significantly predicted turnover intentions, so too did the interaction between P-J fit and late career stage and P-O fit and late career stage. The three interactions are depicted in Figures 6-8. An examination of the interactions regarding the various career stages and P-J fit reveals that in general, predicted turnover intentions scores depended on P-J fit for early and late career stage nurses but not for nurses in their middle career stage. Predicted scores for the middle stage nurses seemed to temper the influence of early and late career stage scores on turnover intentions and

evened out the slope (and impact of high and low levels of P-J fit) when middle career stage nurses' scores are combined with another career stage group (see Figures 6 and 7). The simple slope analysis for the early career stage x P-J fit interaction revealed a significant negative slope for nurses in their early career stage (simple slope = -.40, p <.001) but not for the combined nurses in their mid- and late career stage (simple slope = -.04, ns). The simple slope analysis regarding the late career stage x P-J fit interaction revealed a significant negative slope for late career stage nurses (simple slope = -.41, p <.001) but not for the combined early and mid-career stage nurses (simple slope = -.04, ns). So it would appear that turnover intentions decrease at high levels of fit, but only for nurses who are either in their early or late career stage.

As far as P-O fit is concerned however, turnover intentions seemed to fluctuate as a function of P-O fit for nurses in their early and middle career stage but not so for nurses in their late career stage (see Figure 8). In particular, predicted turnover intentions scores for nurses in their early and middle career stage decrease at low levels of P-O fit compared to high levels of fit. For late career stage nurses however, turnover intentions remain almost constant at both low and high levels of perceived fit with the organization. In this case, the simple slope analysis revealed a significant negative slope for early and mid- career stage nurses (simple slope = .22, p <.001) but not for late career stage nurses (simple slope = .02, ns).

Important Job and Organizational Factors Reported by Nurses

Since both fit variables were significantly correlated with, and therefore directly related to the majority of dependent variables in the study, it was important to examine responses to the open-ended questions about job and organizational characteristics that

nurses deemed important when considering their fit with these aspects of their work environment. Also, because early career stage nurses' P-J fit scores in particular moderated their work-related outcomes, it is important to isolate this group's open-ended responses regarding specific aspects of their job that direct new nurses' perceptions of fit on this dimension.

For the qualitative analysis of organizational characteristics, a grounded-theory approach (Glaser, 1992) was used whereby recurrent topics were identified and transformed into a topic index of organizational characteristics – namely organizational values. Once this was accomplished, two separate raters coded the data using the established index. Topics were then combined into related themes and collapsed into refined thematic categories. Some physical aspects of the organization such as organizational size and structure were mentioned and did not fit into any value topic. Therefore, a physical environment sub-category was added to the topic index.

For job characteristics however, it was possible to initially use a thematic content analysis approach given that job characteristics could be categorized into demands-abilities characteristics or needs-supplies characteristics established in the P-J fit literature (e.g. Cable & DeRue, 2002). Once the qualitative response was determined to be either demands-abilities-related or needs-supplies-related, it was then analyzed using the grounded-theory methodology outlined above.

Organizational Characteristics Deemed Important for Perceived Fit

In becoming familiar with the organizational characteristics of P-O fit deemed important by the nurses it was apparent that nurses predominantly mentioned values as most important when considering how well they fit with their organization (see Table 10

for topic list of values and examples). The most frequently cited value was whether or not the organization endorsed compassionate, client-focused care and advocacy. The second most important organizational characteristic was whether the nurses felt recognized for their competencies and were respected and treated fairly from their superiors and other healthcare professionals. Another important characteristic identified by nurses was the level of care and treatment options offered to patients. In keeping with patient care, many of the nurses also mentioned that it was important to them whether the organization maintained high standards of care and promoted best practices within the field of medicine. In terms of personal need fulfillment, many nurses also mentioned career development and personal growth opportunites as important. Other important characteristics included: the physical environment such as occupational health and safety and access to resources; consistent and clear organizational expectations and whether the organization afforded work-life balance and schedule flexibility.

Job Characteristics Deemed Important for Perceived Fit

Job characteristics of P-J fit identified as important to nurses were divided into demands-abilities fit-related characteristics or needs-supplies characteristics and are summarized in Table 11. Demands-abilities characteristics are those related to employees' knowledge skills and abilities that are required to meet the demands of their jobs. On the other hand, needs-supplies related characteristics are those that encompass employees' needs, desires and preferences that are met by the tasks that make up their jobs. Needs-supplies characteristics were mentioned more often than demands-abilities characteristics. The most frequently reported needs-supplies dimension was the level of independence and autonomy nurses experienced from their job. The second most

common characteristic was also a needs-supplies dimension related to the interesting and challenging nature of the job. Nurses also considered demands of the job and environment when determining their match with their job. For example some nurses mentioned that they feel matched with their jobs when they are able to use the nursing knowledge and assessment skills that make up their formal professional training. Nurses also mentioned a number of specific skills as important components of P-J fit. In particular, analytical and problem solving skills, communication skills, interpersonal and teamwork skills, organizational skills and leadership skills were all viewed as important aspects of how well a nurse is matched with his or her job.

Since the impact of P-J fit on five occupational outcomes was moderated by career stage, it was also important to isolate important job characteristics for nurses in their early career stage. Of the 47 nurses in their early career stage, only five did not provide their response to the open-ended question about important job characteristics. Responses for the remaining early career stage nurses are summarized in the last column of Table 11. For this group, needs-supplies fit dimensions were most important. Newer nurses mentioned the importance of workload and schedule flexibility, and the importance of desirable pay and benefits. The second most important aspect of the job was whether it was interesting, meaningful and challenging. Nursing-related knowledge and skills emerged as the third most popular job characteristic and the most frequent aspect of demands-abilities fit discussed by new nurses. Next, autonomy and independence as well as teamwork and multidisciplinary collaboration were mentioned equally as often. Unlike the group as a whole, newer nurses did not mention fairness, interpersonal skills or technological skills as important job characteristics of P-J fit.

CHAPTER IV

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. It was hypothesized that perceived P-J fit would significantly predict job satisfaction, commitment, work tension and turnover intentions for nurses in the early stages of their career better than would P-O fit and that P-O fit would better predict work-related variables for veteran nurses than would P-J fit. Although both P-J and P-O fit variables were significantly related to the majority of outcomes, it was found that career stage did influence the nature of the relationship between fit and a number of work-related variables. Results from the present study partially supported the specific hypothesis that certain types of fit impact nurses at different stages of their career. Most notable is the finding that levels of P-J fit more strongly impacted measures of job satisfaction, career commitment, affective organizational commitment, and work-related depression and anxiety for newer nurses whereas P-O fit did not. These particular results have important implications for nursing human resources initiatives that may be designed to replenish an aging nursing workforce with newly graduated nurses.

Person-Job Fit and New Nurses: Implications for Retention Initiatives

Results from nursing human resources literature have identified several factors that put nurses at risk for higher levels of illness, absenteeism, burnout and attrition (Preist, 2006). Government officials and nursing administrators, acting on a number

research recommendations, are actively recruiting newly graduated nurses in an attempt to replenish the mass exodus of nurses who have recently become eligible for retirement (CNAC, 2002). Unfortunately, recent reviews of the nursing staff development literature have demonstrated an emerging pattern whereby 35-60% of newly graduated nurses are leaving their initial job within the first year of practice (Herdrich & Lindsay, 2006; Olso, Nelson, and Stuart, 2001). The results of the present study also demonstrated this trend as nurses in the early stages of their career reported the highest turnover intentions scores among all three groups of nurses. These results emphasize the importance of understanding why new nurses fail to make the transition from student to nursing professional.

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. These results 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. A number of government agencies and nursing educators in Canada and the United States have recently developed specific initiatives aimed at not only retaining new nurses in their jobs, but engaging new nurses in their roles as new healthcare professionals and the results from the present study would support the implementation of such endeavours.

One noteworthy initiative is a nursing residency program designed to help new nurses make the transition into employment. This program provides nurses with resources, support and information that correspond to an increased understanding of the experiences that new nurses face within their first 18-months of practice. In an effort to help new nurses positively engage with their jobs, Schoessler and Waldo (2006b) explored the notion that an organization's culture and practices need to be sensitive to new nurses' needs. These researchers have studied and mapped out a transition model for newly graduated nurses and reveal that new nurses generally progress through a

number of developmental stages as they evolve from a novice learner to a skilled professional.

According to their model, Schoessler and Waldo assert that within the first three months of practice, new nurses generally struggle with how to become organized healthcare providers. New nurses lack experience and do not have the skill to judge how long procedures may take or the ability to prioritize patient visits. New nurses therefore go through a trial and error phase in order to learn the most effective ways of organizing their day and the care of their patients. During this stage and in subsequent months of practice, new nurses also begin to realize that they may not have as much quality time with their patients as they once did when they were students. As a result, new nurses may experience frustration, stress and even anger – especially if they are not immediately successfully at meeting new challenges.

In their second stage of transition (between 4-9-months of practice) and throughout their first year, new nurses continue to grapple with new experiences and issues that arise with patients and their families, such as time management and specific nursing duties. Over time however, nurses begin to feel like a functioning member of the team and gain confidence in their nursing skills and abilities. Only then, would it seem that nurses are beginning to perceive a match between their skills and abilities and the demands of the job. Therefore it may be the initial perceptions of misfit with their jobs that are causing high attrition rates among newly graduated nurses.

Throughout their first year of transition, organizations need to appreciate the learning curve required for new nurses to adjust to their new roles. Organizations need to offer support to facilitate this learning process (Schoessler & Waldo, 2006b). To

accomplish this, it has been recommended that organizations establish residency programs (Herdrich& Lindsay, 2006) or online resources and community groups designed to provide new nurses with a forum to discuss and learn about issues that are important to them (Billings et al, 2006). In addition, it is important for organizations to put in place mentoring programs whereby veteran nurses can help reassure newer nurses by normalizing and legitimizing all the frustrations, fears and anxieties that are associated with the first year of practice (Schoessler & Waldo, 2006b). Veteran nurses can also teach new graduates the skills necessary to be a successful nurse as well as offer insight into improving a nurse's work-life balance.

Although mentoring programs are not new within the healthcare field, it is vital that organizations implementing these initiatives refine their goals so that the program's components address the specific needs of new nurses. A number of new nurses' learning needs have been identified by Schoessler and Waldo (2006b) such as developing critical thinking and skills management, developing organization skills, and interacting with the team. Therefore it is important that recruitment and retention initiatives provide the new nurses with opportunities to develop and practice these specific skills that will help them succeed in their new jobs. It is interesting to note that the results from the present study also highlight the importance of these specific nursing skills as most of the skills identified by Schoessler and Waldo (2006b) were also discussed by the present sample of new nurses as important job characteristics in determining one's sense of fit with his or her job. The present study's findings therefore are consistent with Schoessler and Waldo's (2006a; 2006b) developmental model and highlight the importance of ensuring that new nurses develop realistic expectations about their first year in practice and require

support from their organizations in order to successfully make the transition from student to healthcare professional.

Person-Environment Fit Theory and Nursing Attitudes and Occupational Well-Being

Results from the present study also support the practice of using P-E fit theory as an underlying factor that influences nurses' occupational attitudes, well-being and their intentions to remain employed. Unlike previous research that established only a slight relationship between fit and occupational outcomes such as satisfaction and turnover intentions, (e.g. Verquer et al., 2003) the present study found that for the nursing profession, both P-J and P-O fit variables were significantly correlated to almost all occupational outcomes related to satisfaction, commitment, turnover intentions and work strain. In addition, results from the present study also demonstrated that both P-O and P-J fit uniquely impacted the majority of outcome variables. These results suggest that while certain individual or environmental characteristics may influence work-related attitudes and behaviours, it is of value to examine the impact of the P-E interaction on such variables – especially for the Canadian nursing occupational group.

In addition, the results from the present study also reveal that it is appropriate to use a perceived measure of P-E fit with nurses in order to examine how P and E variables interact to influence work-related attitudes and behaviour. According to Kristof (1996) affective occupational outcomes such as satisfaction, affective organizational commitment and career commitment are more likely to be linked to *perceptions* of fit rather than actual fit. Results from the present study support this theory. In the nursing sample, perceived measures of both types of fit were strongly related to the occupational

variables of interest and particularly with the affective variables of job satisfaction relative to expectations and affective organizational commitment.

Perceived measures of fit are correlated with affective outcomes perhaps because aspects of the psychological contract can reasonably explain these variables. The psychological contract between the employee and his or her workplace implies that each entity will fulfill the other's expectations. The employee will behave and perform as per the organization's expectations and in turn, will receive the expected salary, benefits, promotion, etc. (Bocchino, et al., 2003). Both the psychological contract and aspects of subject fit assume that the employee has formed individual and organizational expectations and these expectations guide one's attitudes and behaviours at work. Therefore, the impact of P-E fit variables on affective outcomes are most likely mediated by influences of the psychological contract.

It is also important to draw attention to finding that P-J fit was most strongly related to job satisfaction ($r = .77$) while P-O fit was most strongly related to affective organizational commitment ($r = .66$). These findings are consistent with Lauver and Kristof-Brown's (2001) hypotheses that P-J fit should be more strongly associated with attitudes specific to the job whereas P-O fit should be more strongly associated with attitudes about the organization. However, the fact that P-J fit was the best predictor of turnover intentions may have to do with the nature of the nursing profession itself. One can reasonably assume that individuals choose nursing because of an attraction to the "idealized" role of nursing and a desire to help others – not necessarily because they are drawn to a particular organization. Within the work environment, nurses are receiving constant feedback (positive and negative) based on the outcome of their daily

care/interventions and from the patients they treat. Organizational feedback may be less obvious or overt and less frequent (e.g. monthly staff meetings, annual performance review, etc.). As a result, turnover intentions of nurses will logically be aligned with the job rather than the organization. Therefore, for the nursing profession it may be more difficult to capture the extent to which P-O fit may be uniquely related to turnover intentions and explains this somewhat weak relationship when controlling for P-J fit.

The nature of the nursing profession may also explain the lack of support for the hypothesis that P-O fit would be more strongly related to occupational outcomes for veteran nurses than would P-J fit. Perhaps these differences could be explained by the fact that veteran nurses employed in a given organization have likely accrued a fair amount of seniority, relative to newer nurses. As a result, these veteran nurses may be more likely to stay in a given organization despite a perceived lack of values congruence in order to take advantage of the benefits associated with their seniority.

However, the most likely reason why career stage did not moderate the relationship between P-O fit and organizational and career commitment, and work strain is that in the present study, the more senior nurses are probably already adapted to their work environment and consequently experience more positive work-related outcomes relative to their less experienced counterparts. Results from the present study reveal that late career stage nurses experienced the highest levels of job satisfaction, commitment and the lowest levels of turnover intentions compared to the other groups of nurses. It may be the case that veteran nurses are able to buffer against the effects of their work environment because they have developed adaptive coping strategies that allow them to

succeed in their organization. Therefore a perceived misfit with their organization would not necessarily yield negative work outcomes as one might suspect.

Despite the absence of a moderating effect of career stage on the predictive ability of P-O fit, the overall results of the present study demonstrated a direct relationship between both P-E fit variables and work-related outcomes. This finding supports the notion that fit can and should be measured on different levels of the P-E interaction and that researchers should assess multiple types of fit in a single study in order to capture the dynamic nature of the fit construct.

In addition, by asking nurses to identify the organizational and job characteristics that are important in ascertaining one's perceptions of fit, it is possible to determine the general dimensions of P-E fit that may guide nurses' work-related attitudes and behaviours. In terms of P-O fit, nurses mentioned a number of specific organizational values such as fairness, equality, respect, quality, client-focused care and autonomy that influenced their sense of fit. These values are consistent with previous research designed to examine hospital characteristics and work cultures that promote nurses' job satisfaction and occupational well being. Magnet hospitals possess characteristics that promote nurse autonomy, effectiveness and positive interprofessional collaboration and communication and participatory decision-making cultures (Rondeau & Wagar, 2006; Spence Laschinger et al., 2001). Responses from the present sample of nurses were in line with these previous findings, as these nurses seem to agree that they would be most suited for organizations that possessed these "magnet" characteristics.

In terms of P-J fit, nurses expressed a number of different demands-abilities and need-supplies-related job dimensions that appear to influence their sense of fit with their

job. These findings are consistent with Preist's (2006) analyses of the issues affecting nursing human resources in Canada. In particular, Preist concluded that nurses needed to feel that their skills are recognized and valued. A number of nurses in the present sample raised this same issue. In addition, Preist also recommends that nurses need to practice their full range of abilities and specialized skills in order to experience job satisfaction.

This last recommendation can be addressed in order to increase nurses' perceptions of fit with their job and perhaps levels of satisfaction and commitment. In particular, it has been suggested that functions or tasks associated with a nurse's job, but not specifically related to a nurse's training could be delegated to non-nursing support staff (McGillis Hall & Doran, 2007; Nathenson, Schafer, & Anderson, 2007). By allocating a number of duties not required by a licensed registered nurse to assistive staff, it is possible not only to decrease a nurse's workload but according to Nathenson et al. (2007, p. 10) it is also possible "to utilize the professional expertise of the RN in the most efficient and effective manner possible." Nurses can then take the time necessary to perform essential functions such as assessment, treatment planning and other patient care activities thus increasing the quality of patient care and perhaps their sense of fit with their job.

These types of recommendations are also echoed in a review conducted by Lavoie-Tremblay et al. (2006) that examined incentives reported by nurses that may influence their retention. A reduction in clerical tasks and better distribution of tasks among the various teams at work were all deemed as important ways of balancing work demands and employee abilities in order to increase job satisfaction and reduce strain. Nurses also identified that they need to have sufficient decision-making latitude and

adequate support from superiors and colleagues (Lavoie-Tremblay et al., 2006). These incentives were also reported by the nurses in the present study when discussing important job and organizational-related factors that influence their perceived fit with their environment. Given this noticeable overlap, it would appear as though previous nursing human resources research has already identified important demands-abilities, needs-supplies and value-congruence-related dimensions of the relation between nurses and their work environment – but conceptualized it in a different way.

Nurses' occupational well being is determined by so many inter-related factors that it only makes sense that the individual and the work environment are conceptualized as a constellation of factors, each contributing to workplace attitudes and behaviours in a dynamic way. Therefore, the P-E fit approach can be bridged together with nursing human resources research to develop initiatives designed to help remedy the nursing crisis in Canada.

Person-Environment Fit and Nursing Human Resources Initiatives

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 also possible to determine which types of socialization tactics may be more effective within the nursing profession itself. Socialization tactics based on Jones' (1986) work, can be categorized into three broad dimensions – context, content, and social (Cable & Parsons, 2001). Context socialization tactics refer to the order in which information is given to new employees and can be collective versus individual and formal versus informal. In terms of content, socialization tactics also relate to the order in which information is provided to new employees and can be fixed versus variable and sequential versus random. Lastly, social aspects of socialization tactics relate to the manner in which experienced colleagues act as role models for newcomers. Serial and investiture tactics are used if a colleague acts as a role model and provides social support for a new arrival. On the other hand, disjunctive and divestiture tactics are associated with the lack of a role model and the use of negative social communications from experienced employees. Research has shown that certain

types of socialization tactics can increase newcomers subjective P-O fit (Cable &

Parsons, 2001; Cooper-Thomas, Van Vianen, & Anderson, 2004). For example, Cable

and Parsons (2001) found that new employees who experienced sequential and fixed

content-related socialization tactics such as understanding the organization's typical

career ladder and job activities had greater P-O fit perceptions compared to newcomers

who experienced variable and random tactics. Cable and Parsons also found that serial

and investiture tactics associated with having a socially supportive role model, as

opposed to disjunctive and divestiture socialization tactics were also related to higher

subjective P-O fit of new employees. It has already been suggested that serial and

investiture tactics are beneficial in the nursing profession as nursing mentors have

increased newer nurses' transition into the field. 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 the present study and 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.

Given the substantial relationship between both fit variables and the occupational outcomes explored in the present study, it would appear that P-E fit has emerged as a new avenue for exploring the current nursing turnover crisis and inherent in its vast research tradition and theoretical underpinnings, comes promising opportunities to investigate initiatives that may be effective in remedying this health care problem. Within the nursing profession, it becomes imperative that recruiters have an understanding of what values, skills and abilities are predominantly related to successful employment within the professional team, nursing unit as well as within the organization as a whole.

Limitations and Future Research

A relatively large correlation between P-J and P-O fit was obtained in the current study ($r = .53$). Unlike Lauver and Kristof-Brown (2001) who only obtained a correlation of $r = .22$, results from the present study revealed a more substantial overlap between P-J and P-O fit variables. It may be the case that these two constructs are highly related within the nursing occupational group. On the other hand, this finding may be the result of participants' failure to only consider aspects of their job when completing measures of P-J fit or failing to consider only organizational aspects when completing measures of P-O fit – despite both job and organization definitions and survey instructions designed to prevent construct overlap. However, despite the relatively large correlation between P-J and P-O fit in the present study, these constructs do appear to be

independent enough to yield separate results when combined with career stage to predict satisfaction, commitment and turnover intentions and future research should continue to treat these variables as such.

In order to explore the relationship between P-E fit and variables related to turnover, future research should also focus on analyses regarding one's sense of fit with their work-environment at additional levels of the P-E interaction. The nurses in the present study were asked to think about organizational and job characteristics, but there may be characteristics at other levels of the environment that are important to nurses' sense of fit. For example, results from the present study and past research (e.g. O'Brien-Pallas, Duffield & Hayes, 2006) have demonstrated that nurses value, among other things, autonomy in decision-making and working in a supportive, respectful, multidisciplinary environment. Rather than focus on the organization, these types of values may be more appropriately linked to unit-level analyses. Leadership-related values may also be linked to person-unit fit as well as person-supervisor fit.

One additional avenue worthy or exploration is nurses' sense of fit with the healthcare system in general. The nurses in the present study identified client-focused quality care as one of the most important organizational and job characteristics influencing their sense of P-O and P-J fit. Because fit perceptions are highly related to satisfaction, these results are similar to McGillis Hall and Doran's (2007) finding that higher perceptions of quality of care were associated with increased levels of job satisfaction. By examining one's sense of fit with the healthcare system in Canada, it is then possible to determine the extent to which these needs and value systems are supported by a healthcare system that forces fewer nurses to take care of more patients,

focusing on more efficient and cost-effective service delivery. The Canadian healthcare system has undergone a vast amount of restructuring in the last two decades that some nurses, especially new nurses, may not have an accurate sense of how the healthcare system operates, let alone the values that it promotes. As a result, one's mismatch with the system at large may have greater implications than a perceived organizational mismatch.

If nurses do lack insight into the current value structure of the healthcare system or its organizations, then it may be the case that nurses are unable to articulate specific factors related to their P-E fit and instead intuitively know whether or not they are matched with their environment. In this case, it may be appropriate to adopt Billsberry et al.'s (2005) suggestions for mapping an employee's sense of fit. In particular the authors recommend causal mapping as a method of probing employees in order to capture the dimensions that influence their sense of fit. To employ a causal mapping method, nurses would be asked to reflect on their sense of fit with their organization or job and the kinds or events that might influence that sense of fit. Nurses are then asked to consider what may have caused the important events and how things unfolded and consequently impacted their sense of fit. It is then possible to construct a flow chart-type map that clusters different factors together as they come to mind.

This method of understanding nurses' determinants of fit can be applied to a variety of work environments employing nurses with different specializations. This is particularly noteworthy because the results from the present study demonstrate that fit is important across a number of different environmental contexts belonging to different types of nurses. By probing different groups of nurses about their sense of fit with their

environment, it is also possible to determine how fit initiatives and resources should be distributed in order to maximize their impact. Successful retention and engagement initiatives need to be based on a clear understanding of what is important to all groups of nurses.

It may also be of value to examine nurses' actual fit with their job or their organization. In their review, Hayes, Orchard, et al., (2006) revealed that veteran nurses often complain that new graduates lack clinical skills to succeed in the workplace. The Canadian Health Services Research Foundation has outlined several recommendations relating to the nursing human resources field that address this issue. In particular it is suggested that "Nursing educators must match their course curriculum with the practical and theoretical skills needed in the workplace, thereby ensuring graduates are confident and fully prepared for practices. They must also equip their students with leadership skills and a basic knowledge of how the healthcare system operates." (Priest, 2006, p. 5). Nurses in the present study mentioned a number of different skills – analytical, organizational, assessment and relationship-building that are important in determining one's sense of fit with their job. Therefore it would appear that the mere perception of fit is not the only important factor in improving nursing (and patient-related) outcomes, but human resources research should also incorporate actual P-J fit relating to knowledge, skills and abilities as an essential part of the P-E fit interaction.

One final note is the fact that the present study made use of online data collection methods. Inherent in this method are several strengths, including reduced collection time, lower cost, ease of data entry and the ability to sample nurses from a variety of geographical locations. While this method is recommended for future use in research

designed to sample nurses across Canada, there are several limitations associated with online data collection that may impact the generalizability of findings or other methodological issues. For example, Granello and Wheaton (2004) have noted that although the Internet is widely used in North America, most Internet users are white, married, under the age of 35 and highly educated. Even though most of the nurses in the present sample were in the later stages of their careers, having equal access to the technology needed to complete the survey and the computer skills to do so may have been a factor in determining which nurses actually participated and the representativeness of the sample.

Another issue related to the representativeness of the sample, is the level of cooperation from the different nursing associations. Some provincial nursing associations were more responsive than others in disseminating information about the present study. As a result, participant distribution across Canadian provinces was not equal, nor was it representative of the population. For example, due to support from their union representatives, there was an overwhelming response from Newfoundland nurses; however, due to a lack of interest from their associations or perhaps due to English language limitations of the survey, there was no real response from Quebec or Saskatchewan nurses. In addition, because online recruitment was used through nursing associations, it is impossible to determine the response rate for the present study. It is therefore not possible to know how many potential participants actually received the information about the study and chose not to participate. Future research involving nurses could also incorporate recruitment information in print mailings to association members to address some of the limitations associated with exclusive online recruitment.

If researchers wish to obtain more representation from Quebec nurses, having a French version of the questionnaire would assist in this endeavor.

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. In addition, it is increasingly apparent that perceived measures of fit are suitable means of exploring the relation between P-E fit and affective occupational outcomes such as job satisfaction relative to expectations and affective organizational commitment.

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 satisfaction, 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.

References

Allen, J. & Mellor, D. (2002). Work context, personal control, and burnout among

   nurses. *Western Journal of Nursing Research, 24,* 905-917.

Alvesson, M. (1993). *Cultural perspectives on organizations.* New York: Cambridge

   University Press.

Bacharach, S., Bamberger, P., & Conley, S. (1991). Work-home conflict among nurses

   and engineers: Mediating the impact of role stress on burnout and satisfaction

   with work. *Journal of Organizational Behavior, 12,* 39-53.

Billings, D., Jeffries, P. R., Daniels, D., Rowles, C., Stone, C. L., Stephenson, E. (2006).

   Developing and using online courses to prepare nurses for employment in critical

   care. *Journal for Nurses in Staff Development, 22,* 87-92.

Billsberry, J. Ambrosini, V., Moss-Jones, J., & Marsh, P. (2005). Some suggestions for

   mapping organizational members' sense of fit. *Journal of Business and

   Psychology, 19,* 555-570.

Bocchino, C., Hartman, B. W., & Foley, P. F. (2003). The relationship between person-

   organization congruence, perceived violations of the psychological contract, and

   occupational stress symptoms. *Consulting Psychology Journal, 55*(4), 203-214.

Brkich, M., Jeffs, D., & Carless, S. A. (2002). A global self-report measure of person-job

   fit. *European Journal of Psychological Assessment, 18,* 43-51.

Cable, D. M. & DeRue, D. S. (2002). The convergent and discriminant validity of

   subjective fit perceptions. *Journal of Applied Psychology, 87,* 875-884.

Cable, D. M., & Edwards, J. R. (2004). Complementary and supplementary fit: A

theoretical and empirical integration. *Journal of Applied Psychology, 89*(5), 822-

834.

Cable, D. M. & Parsons, C. K. (2001). Socialization tactics and person-organization fit.

Personnel Psychology, 54, 1-23.

Canadian Nursing Advisory Committee (CNAC) (2002). *Our health, our future:*

Creating quality workplaces for Canadian Nurses. Advisory Committee on

Health Human Resources: Ottawa.

Canadian Nurses Association (2008, March). 2006 Workforce profile of registered nurses

in Canada. Retrieved September 16, 2008, from www.can-aiic.ca

Caplan, R. D., Cobb, S., French, J. R. P., Van Harrison, R., & Pinneau, S. R., Jr. (1975).

Job demands and worker health. Washington, DC: U.S. Department of Health,

Education and Welfare.

Chartrand, J., & Walsh, B., W. (1999). What should we expect from congruence? *Journal*

of Vocational Behavior, 55(1), 136-146.

Chatman, J. (1991). Matching People and Organizations: Selection and Socialization in

Public Accounting Firms. *Administrative Science Quarterly, 36,* 459-484.

Chatman, J. (1989). Improving interactional organizational research: A model of person-

organization fit. *The Academy of Management Review, 14*(3), 333-349.

Cohen, A. (1993). Age and tenure in relation to organizational commitment: A meta-

analysis. *Basic and Applied Social Psychology, 14,* 143-159.

Conway, E. (2004). Relating career stage to attitudes towards HR practices and commitment: Evidence of interaction effects? *European Journal of Work and Organizational Psychology, 13,* 417-446.

Cooper-Thomas, H. D., van Vianen, A. & Anderson, N. (2004). Changes in person-organization fit: The impact of socialization tactics on perceived and actual P-O fit. *European Journal of Work and Organizational Psychology, 13,* 52-78.

Dawis, R. (2000). The person-environment tradition in counseling psychology. In W. E. Martin, & J. L. Swartz-Kulstad (Eds.), *Person-environment psychology and mental health: Assessment and intervention* (pp. 91-111). Mahwah, NJ: Lawrence Erlbaum Associates.

Edwards, J. R. (1996). An examination of competing versions of the person-environment fit approach. *Academy of Management Journal, 39*(2), 292-339.

Edwards, J. R. (1993). Problems with the use of profile similarity indices in the study of congruence in organizational research. *Personnel Psychology, 46,* 641-665.

Edwards, J., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal, 36*(6), 1577-1613.

Flaherty, K. E. & Pappas, J. M. (2002). The influence of career stage on job attitudes: Toward a contingency perspective. *Journal of Personal Selling and Sales Management, 22,* 135-143.

Glaser, B. G. (1992). *Basics in grounded theory analysis. Emergence vs. Forcing.* Mill Valley, CA: Sociology Press.

Granello, D. H. & Wheaton, J. E. (2004). Online data collection: Strategies for research. *Journal of Counseling and Development, 82,* 387-393.

Happell, B., Martin, T., & Pinikahana, J. (2003). Burnout and job satisfaction: A comparative study of psychiatric nurses from forensic and a mainstream mental health service. *International Journal of Mental Health Nursing, 12,* 39-47.

Hayes, L. J. & O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., Spence Laschinger, H. K., North, N., & Stone, P. W. (2006). Nurse turnover: A literature review. *International Journal of Nursing Studies, 43,* 237-263.

Hayes, L. J., Orchard, C. A., McGillis Hall, L., Nincic, V., O'Brien-Pallas, L. & Andrews, G. (2006). Career intentions of nursing students and new nurse graduates: A review of the literature. *International Journal of Nursing Education Scholarship, 3,* 1-15.

Herdrich, B. & Lindsay, A. (2006). Nurse residency programs. *Journal for Nurses in Staff Development, 22,* 55-62.

Hesketh, B., & Gardner, D. (1993). Person-environment fit models: A reconceptualization and empirical test. *Journal of Vocational Behavior, 42*(3), 315-332.

Hesketh, B., & Myors, B. (1997). How should we measure fit in organisational psychology--or should we? *Australian Psychologist, 32*(1), 71-76.

Hoeglund, T., & Hansen, J. C. (1999). Holland-style measures of congruence: Are complex indices more effective predictors of satisfaction? *Journal of Vocational Behavior, 54*(3), 471-482.

Holland, J. (1997). *Making vocational choices: A theory of vocational personalities and work environments (3rd ed.)*. Odessa, FL: Psychological Assessment Resources.

Holmbeck, G. N. (1997). Toward terminological, conceptual and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65,* 599-610.

House, R. J. & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational Behavior and Human Performance, 7,* 467-505.

Kristof, A. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*(1), 1-49.

Kristof-Brown, A., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individual's fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*(2), 281-342.

Kwantes, C. T. & Boglarsky, C. A. (2004). Do occupational groups vary in expressed organizational culture preferences? *International Journal of Cross Cultural Management, 4,* 335-354.

Lachterman, B. & Meir, E. I. (2004). The impact of work setting congruence on well-being. *Journal of Career Assessment, 12,* 150-168.

Lauver, K., & Kristof-Brown, A. (2001). Distinguishing between employees' perceptions of person--job and person--organization fit. *Journal of Vocational Behavior, 59*(3), 454-470.

Lavoie-Tremblay, M. O'Brien-Pallas, L., Viens, C., Brabant, L. H. & Gelinas, C. (2006). Towards an integrated approach for the management of ageing nurses. *Journal of Nursing Management, 14,* 207-212.

Lent, E., & Lopez, F., G. (1996). Congruence from many angles: Relations of multiple congruence indices to job satisfaction among adult workers. *Journal of Vocational Behavior, 49*(1), 24-37.

Lynn, S. A., Cao, L. T. & Horn, B. C. (1996). The influence of career stage on the work attitudes of male and female accounting professionals. *Journal of Organizational Behavior, 17,* 135-149.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397-422.

McGillis Hall, L. (2005). Strategies employed to rebuild nursing following restructuring: Canadian perspectives. *Journal of Nursing Research, 10,* 57-64.

McGillis Hall, L. & Doran, D. (2007). Nurses' perceptions of hospital work environments. *Journal of Nursing Management, 15,* 264-273.

Menguc, B. & Bhuian, S. N. (2004). Career stage effects on job characteristic-job satisfaction relationships among guest worker salespersons. *Journal of Personal Selling and Sales Management, 24,* 215-227.

Morrow, P. C., & McElrooy, J. C. (1987). Work commitment and job satisfaction over three career stages. *Journal of Vocational Behavior, 30,* 330-346.

Nathenson, P., Schafer, L. & Anderson, J. (2007). Relationship of RN role responsibilities to job satisfaction. *Rehabilitation Nursing, 32,* 9-14.

O'Brien-Pallas, L., Alksnis, L., & Wang, S. (2003). *Bringing the future into focus, projecting RN retirement in Canada.* Ottawa, Canada: Canadian Institute for Health Information.

O'Brien-Pallas, L. Duffield, C. & Hayes, L. (2006). Do we really understand how to retain nurses? *Journal of Nursing Management, 14,* 262-270.

Ostroff, C., Kinicki, A. J. & Tamkins, M. M. (2003). Organizational culture and climate. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology, Vol. 12* (pp. 565-593). Hoboken, NJ: John Wiley & Sons, Inc.

Piasentin, K. A. & Chapman, D. S. (2006). Subjective person-organization fit: Bridging the gap between conceptualization and measurement. *Journal of Vocational Behavior, 69,* 202-221.

Preacher, K. J., Curran, P. J. & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31,* 437-448.

Priest, A. (2006). *What's Ailing our Nurses? A discussion of the major issues affecting nursing human resources in Canada.* Ottawa, ON: Canadian Health Services Research Foundation.

Raiger, J. (2005). Applying a cultural lens to the concept of burnout. *Journal of Transcultural Nursing, 16,* 71-76.

Reilly, N. O. & Orsak, C. L. (1991). A career stage analysis of career and organizational commitment in nursing. *Journal of Vocational Behavior, 39,* 311-330.

Rondeau, K. V. & Wagar, T. H. (2006). Nurse and resident satisfaction in magnet long-term care organizations: Do high involvement approaches matter? *Journal of Nursing Management, 14,* 244-250.

Ryten, E. (1007). *A statistical picture of the past, present and future of registered nursing in Canada.* Ottawa ON: Canadian Nurses Association.

Schein, E. H. (1990). Organizational culture. *American Psychologist, 45,* 109-119.

Schneider, B. (1987). The people make the place. *Personnel Psychology,40,* 437-453.

Schneider, B. (2001). Fits about fit. *Applied Psychology: An International Review, 50,* 141-152.

Schneider, B., Smith, D. B., & Goldstein, H. W. (2000). Attraction-selection-attrition: Toward a person-environment psychology of organizations. In W. B. Walsh, K. H. Craik & R. H. Price (Eds.), *Person-environment psychology: New directions and perspectives* (Second ed.) (pp. 61-85). Mahwah, NJ: Lawrence Erlbaum Associates.

Schoessler, M. & Waldo, M. (2006a). The first 18 months in practice. *Journal for Nurses in Staff Development, 22,* 47-52.

Schoessler, M. & Waldo, M. (2006b). Organizational infrastructure to support development of newly graduated nurses. *Journal for Nurses in Staff Development, 22,* 286-293.

Seago, J. A. (1997). Organizational culture in hospitals: Issues in measurement. *Journal of Nursing Measurement, 5,* 165-178.

Shields, M. & Wilkins, K. (2006). *Findings from the 2005 National Survey of the Work and Health of Nurses.* (Catalogue no. 83-003-XIE). Ottawa, ON: Statistics Canada.

Spence Laschinger, H. K., Shamian, J. & Thomson, D. (2001). Impact of magnet hospital characteristics on nurses' perceptions of trust, burnout, quality of care, and work satisfaction. *Nursing Economics, 19,* 209-219.

Spokane, A., Meir, E. I., & Catalano, M. (2000). Person-environment congruence and Holland's theory: A review and reconsideration. *Journal of Vocational Behavior, 57*(2), 137-187.

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson Education, Inc.

Tinsley, H. (2000). The congruence myth: An analysis of the efficacy of the person-environment fit model. *Journal of Vocational Behavior, 56*(2), 147-179.

Tranberg, M., Slane, S., & Ekeberg, S. E. (1993). The relation between interest congruence and satisfaction: A metaanalysis. *Journal of Vocational Behavior, 42*(3), 253-264.

Vancouver, J. B., Millsap, R. E., & Peters, P. A. (1994). Multilevel analysis of organizational goal congruence. *Journal of Applied Psychology, 79*(5), 666-679.

Verplanken, B. (2004). Value congruence and job satisfaction among nurses: A human relations perspective. *International Journal of Nursing Studies, 41,* 599-605.

Verquer, M., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. *Journal of Vocational Behavior, 63*(3), 473-489.

Westerman, J., & Cyr, L. (2004). An integrative analysis of person-organization fit

theories. *International Journal of Selection and Assessment, 12*(3), 252-261.

Witt, L. A. (1998). Enhancing organizational goal congruence: A solution to

organizational politics. *Journal of Applied Psychology, 83*(4), 666-674.

Zucker, B., Goss, C., Williams, D., Bloodworth, L., Lynn, M., Denker, A. & Gibbs, J. D.

(2006). Nursing retention in the era of a nursing shortage. *Journal for Nurses in*

Staff Development, 22, 302-306.

Appendix A: Canadian Nursing Associations Contacted

Provincial/Territory Nursing Associations (including Labour Unions)

1. Registered Nurses Association of British Columbia

2. British Columbia Nurses' Union

3. College of Practical Nurses of British Colombia

4. Alberta Association of Registered Nurses

5. United Nurses of Alberta

6. Saskatchewan Registered Nurses' Association

7. Saskatchewan Association of Licensed Practical Nurses

8. College of Registered Nurses of Manitoba

9. Manitoba Nurses' Union

10. College o Licensed Practical Nurses of Manitoba

11. Registered Nurses Association of Ontario

12. Ontario Nurses Association

13. College of Nurses of Ontario

14. Registered Practical Nurses Association of Ontario

15. Ordre des infirmieres et infirmiers du Quebec

16. Ordre des infirmieres et infirmiers auxiliares du Quebec

17. Association of Registered Nurses of Prince Edward Island

18. Prince Edward Island Licensed Practical Nurses Registration Board

19. Nurses Association of New Brunswick

20. Registered Nurses' Association of Nova Scotia

21. College of Registered Nurses of Nova Scotia

22. College of Licensed Practical Nurses of Nova Scotia

23. Nova Scotia Nurses' Union

24. Association of Registered Nurses of Newfoundland

25. Newfoundland & Labrador Nurses Union

26. College of Licensed Practical Nurses of Newfoundland & Labrador

27. Northwest Territories Registered Nurses Association

28. Yukon Registered Nurses Association

National and Special Interest Nursing Associations

1. Canadian Nurses Association
2. Canadian Practical Nurses Association
3. Aboriginal Nurses Association
4. Canadian Association of Critical Care Nurses
5. Canadian Intravenous Nurses Association
6. Canadian Association of Neuroscience Nurses
7. Canadian Association of Nurses in AIDS
8. Association of Women's Health, Obstetric and Neonatal Nurses Canada
9. Canadian Association of Advanced Practice Nurses
10. Canadian Association of Burn Nurses
11. Canadian Association of Hepatology Nurses
12. Canadian Association of Nephrology Nurses
13. Canadian Association of Nurses in Hemophilia Care
14. Canadian Association of Nurses in Oncology
15. Canadian Association for Rural and Remote Nursing
16. Canadian Council of Cardiovascular Nurses
17. Canadian Federation of Mental Health Nurses
18. Canadian Gerontological Nursing Association
19. Canadian Holistic Nurses Association
20. Canadian Occupational Health Nurses Association Inc.
21. Canadian Orthopaedic Nurses Association
22. Canadian Society of Gastroenterology Nurses and Associates
23. Community Health Nurses Association of Canada
24. National Emergency Nurses' Affiliation
25. National Association of PeriAnesthesia Nurses of Canada □
26. Operating Room Nurses Association of Canada

Appendix B: Letter of Information

Letter of Information
Using a Person-Environment Fit Orientation to
Examine Job Satisfaction, Commitment, and Work Stress in Canadian Nurses

You are invited to participate in a research study conducted by Simone Arbour from the Department of Psychology at the University of Windsor. The results of the present study will contribute to the fulfillment of Simone Arbour's dissertation and PhD degree.

If you have any questions or concerns about the research, please feel free to contact Simone Arbour at arbours@uwindsor.ca or Dr. Caterine Kwantes at (519) 253-3000 ext 2242 or ckwantes@uwindsor.ca

PURPOSE OF THE STUDY

The purpose of the present study is to examine the relationship between person-environment fit (the match between an employee and his or her work environment) and occupational outcomes such as work attitudes and behaviours in a sample of Canadian nurses. Specifically, I intend to explore how individual and environmental factors interact to influence job satisfaction, commitment, and work strain for newer and veteran nurses.

PROCEDURES

If you volunteer to participate in this study and **you are a licensed, Canadian, English-speaking nurse**, we would ask you to do the following things:

Take approximately 15 minutes to complete the online survey from any computer or laptop that is equipped with access to the Internet.

If you would prefer a paper copy of the survey you may email the investigator Simone Arbour at arbours@uwindsor.ca with your address and a copy of the survey will be mailed to you with an addressed stamped envelope for you to return at your convenience.

You will be presented with a number of questions regarding yourself, your organization and your job.

We ask that you read all the questions carefully and answer questions honestly.

There are no right or wrong answers.

POTENTIAL RISKS AND DISCOMFORTS

There is the possibility that certain questions about work strain or questions about your attitudes towards your job or organization may make you feel upset -- especially if you feel you hold any negative attitudes towards your work environment.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

This study deals with a number of gaps in the nursing human resources literature. As such, participation in the study will greatly increase our understanding of how person-environment fit can impact nurses' work attitudes and potential nursing turnover behaviour.

It may be of interest and of importance for Canadian nurses to share their opinions about their work. Participation may also provide nurses with the opportunity to explore and understand their own work-related values and attitudes.

Results from this study will be made available to all interested participants. Also, when results from this study are published in a scholarly journal or presented at professional conferences, information about nurses' values and perceptions of their work environment will be disseminated to the nursing and psychological community at large. This exposure may help to stimulate discussion about how the match between nurses and their work environment can impact job satisfaction, commitment, and work strain.

PAYMENT FOR PARTICIPATION

You will not receive payment for participation in this study.

CONFIDENTIALITY

All information obtained through the survey will remain anonymous and confidential, and will be used for research purposes only.

No identifying information about yourself or your organization will be requested. All data will be kept in secured files in accordance with the standards at the University of Windsor and the Canadian Psychology Association.

The Canadian Psychological Association requires that all data from any published study be kept available for five years post-publication. After the require five years passes, all study materials will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequence of any kind. You may also refuse to answer any question you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Upon completion of the study, a brief report will be made available to those who are interested. Results will be posted on the Internet by December 2007 and can be retrieved at http://www.uwindsor.ca/users/c/ckwantes/main.nsf/. Please contact Simone Arbour at arbours@uwindsor.ca for further information regarding the results.

SUBSEQUENT USE OF DATA

This data obtained from this study may be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; telephone: 519-253-3000 ext. 3916; e-mail: lbunn@uwindsor.ca

We recommend that you print out a copy of this letter of information for your records.

Pass it on: Because we are interested in the opinions of nurses who work in a variety of contexts, please feel free to pass this survey onto other Canadian nurses who you think might be interested in sharing their opinions about their job and organization.

Do you wish to continue? To acknowledge that you have read and understood the information provided to you about the study, "Using a Person-Environment Fit Orientation to Examine Job Satisfaction, Commitment, and Work Stress in Canadian Nurses" and that you would like to continue with the survey please click on YES, I WOULD LIKE TO PARTICIPATE.

YES, I WOULD LIKE TO PARTICIPATE.

NO THANKS.

Appendix C: Questionnaire

Using a Person-Environment Fit Orientation to
Examine Job Satisfaction, Commitment, and Work Stress in Canadian Nurses

Part 1: Perceptions of Your Job

Below are six statements designed to assess your perceptions of your job. Your job is defined as the tasks you are expected to accomplish in exchange for employment as well as the characteristics of those tasks (e.g. types of patients you deal with and level of care you are expected to delivery, etc.). Please indicate your extent of agreement with each statement using the scale provided.

1. There is a good fit between what my job offers me and what I am looking for in a job.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

2. The attributes that I look for in a job are fulfilled very well by my present job.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

3. The job that I currently hold gives me just about everything that I want from a job.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

4. The match is very good between the demands of my job and my personal skills.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

5. My abilities and training are a good fit with the requirements of my job.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

6. My personal abilities and education provide a good match with the demands that my job places on me.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

What characteristics of your job do you consider most important, when thinking about how well you are matched with your **job**?

_____

_____

_____

_____

Part 2: Perceptions of Your Organization

Below are five statements designed to assess your perceptions of your organization. Your organization is defined as the entire institution for which you work (e.g. your hospital, healthcare organization, etc.) Please indicate your extent of agreement with each statement using the scale provided.

1. The things that I value in life are very similar to the things that my organization values.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

2. My personal values match my organization's values and culture.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

3. My organization's values and culture provide a good fit with the things that I value in life.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

4. I am able to maintain my values at this company/organization.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

5. My values prevent me from fitting in at this company/organization because they are different from my company/organization's values.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

What characteristics of your organization do you consider most important, when thinking about how well you are matched with your **organization**?

_____

_____

_____

_____

Part 3: Job Satisfaction Relative to Expectations

Please indicate your extent of satisfaction with aspects of your job by rating each of the five statements using the scale provided.

How satisfied are you regarding:

1. Your present job when you compare it to others in the organization.

☐ very dissatisfied
☐ dissatisfied
☐ slightly dissatisfied
☐ neutral
☐ slightly satisfied
☐ satisfied
☐ very satisfied

2. The progress you are making toward the goals you set for yourself in your present position.

☐ very dissatisfied
☐ dissatisfied
☐ slightly dissatisfied
☐ neutral
☐ slightly satisfied
☐ satisfied
☐ very satisfied

3. The chance your job gives you to do what you are best at.
- ☐ very dissatisfied
- ☐ dissatisfied
- ☐ slightly dissatisfied
- ☐ neutral
- ☐ slightly satisfied
- ☐ satisfied
- ☐ very satisfied

4. Your present job when you consider the expectations you had when you took the job.
- ☐ very dissatisfied
- ☐ dissatisfied
- ☐ slightly dissatisfied
- ☐ neutral
- ☐ slightly satisfied
- ☐ satisfied
- ☐ very satisfied

How satisfied are you regarding:

5. Your present job in light of your career expectations.
- ☐ very dissatisfied
- ☐ dissatisfied
- ☐ slightly dissatisfied
- ☐ neutral
- ☐ slightly satisfied
- ☐ satisfied
- ☐ very satisfied

Part 4: Organizational Commitment

Please indicate your extent of commitment to your organization by rating each of the statements using the scale provided.

1. I do not feel "emotionally attached" to this organization.
- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

2. I do not feel like "part of the family" at my organization.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

3. I do not feel a strong sense of belonging to my organization.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

4. This organization has a great deal of personal meaning for me.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

5. I enjoy discussing my organization with people outside of it.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

6. I really feel as if this organization's problems are my own.
   - ☐ strongly disagree
   - ☐ disagree
   - ☐ slightly disagree
   - ☐ neutral
   - ☐ slightly agree
   - ☐ agree
   - ☐ strongly agree

7. I would be very happy to spend the rest of my career with this organization.
☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

8. I think that I could easily become as attached to another organization as I am to this one.
☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

9. I feel that I have too few options to consider leaving this organization.
☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

10. It would be very hard for me to leave my organization right now, even if I wanted to.
☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

11. Right now, staying with my organization is a matter of necessity as much as desire.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

12. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

13. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

14. I am not afraid of what might happen if I quit my job without having another one lined up

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

15. It wouldn't be too costly for me to leave my organization right now.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

16. Too much in my life would be disrupted if I decided I wanted to leave my organization now.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

17. I was taught to believe in the value of remaining loyal to one's organization.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

18. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.

- ☐ strongly disagree
- ☐ disagree
- ☐ slightly disagree
- ☐ neutral
- ☐ slightly agree
- ☐ agree
- ☐ strongly agree

19. I do not believe that a person must always be loyal to his or her organization

    ☐ strongly disagree
    ☐ disagree
    ☐ slightly disagree
    ☐ neutral
    ☐ slightly agree
    ☐ agree
    ☐ strongly agree

20. Things were better in the days when people stayed with one organization for most of their careers.

    ☐ strongly disagree
    ☐ disagree
    ☐ slightly disagree
    ☐ neutral
    ☐ slightly agree
    ☐ agree
    ☐ strongly agree

21. I think that people these days move from company to company too often.

    ☐ strongly disagree
    ☐ disagree
    ☐ slightly disagree
    ☐ neutral
    ☐ slightly agree
    ☐ agree
    ☐ strongly agree

22. If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization.

    ☐ strongly disagree
    ☐ disagree
    ☐ slightly disagree
    ☐ neutral
    ☐ slightly agree
    ☐ agree
    ☐ strongly agree

23. Jumping from organization to organization does not seem at all unethical to me.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

Part 5: Career Commitment

Please indicate your extent of commitment to your nursing career by rating each of the following statements using the scale provided.

1. I like nursing too well to give it up.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

2. If I could go into a different profession other than nursing which paid the same, I would probably take it.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

3. If I could do it all over again, I would not choose to work in the nursing profession.
   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

4. I definitely want a career for myself in the nursing profession.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

5. If I had all the money I needed without working, I would probably still continue to work in the nursing profession.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

6. I am disappointed that I ever entered the nursing profession.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

7. Nursing is the ideal vocation for a life's work.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

Part 6: Work Tension Scale

Please indicate the extent to which you experience work tension by rating each of the following statements using the scale provided.

1. My job tends to directly affect my health.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

2. I work under a great deal of tensions.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

3. I have felt fidgety or nervous as a result of my job.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

4. If I had a different job, my health would probably improve.

   ☐ strongly disagree
   ☐ disagree
   ☐ slightly disagree
   ☐ neutral
   ☐ slightly agree
   ☐ agree
   ☐ strongly agree

5. Problems associated with my job have kept me awake at night.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

6. I have felt nervous before attending meetings at work.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

7. I often "take my job home with me" in the sense that I think about it when doing other things.

☐ strongly disagree
☐ disagree
☐ slightly disagree
☐ neutral
☐ slightly agree
☐ agree
☐ strongly agree

While working at your current job in your current organization, please indicate the extent to which you experience the following using the scale provided

1. I feel sad.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

2. I feel unhappy.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

3. I feel good.
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

4. I feel depressed.
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

5. I feel blue
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

6. I feel cheerful
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

7. I feel nervous.
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

8. I feel jittery.
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

9. I feel calm
   ☐ never
   ☐ some of the time
   ☐ a good part of the time
   ☐ most of the time

10. I feel fidgety.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

11. I get aggravated.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

12. I get irritated or annoyed.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

13. I have experienced a work-related injury.

☐ never
☐ occasionally
☐ frequently

Part 7: Turnover Intentions

Please indicate the extent to which you have looked for another job by rating each of the three statements using the scale provided.

1. I have looked for another job in the last year.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

2. I am currently looking for another job.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

3. I expect to be looking for another job in the next year.

☐ never
☐ some of the time
☐ a good part of the time
☐ most of the time

Part 8: Questions About You

What is your gender?

☐ male ☐ female ☐ trans-gender

How old are you?

_____ years old

What type of nurse are you?

☐ RN (registered nurse)

☐ LPN or RPN (licensed practical nurse or registered practical nurse)

☐ RPN (registered psychiatric nurse)

☐ Nurse Practitioner

☐ other, please specify _____

How long have you been a nurse?

_____ years and _____ months

Which work context do you work in most of the time?

☐ hospital

☐ long-term care facility

☐ community health facility

☐ physician's office

☐ private nursing agency

☐ educational institution

☐ other, please specify _____

Do you work in direct patient care?

☐ Yes   ☐ No

How long have you been employed at your current organization?

_____ years and _____ months

How long have you been in your current position?

_____ years and _____ months

About how many hours per week do you work?

_____ hours

Please indicate the highest level of education you have obtained:

☐ High School

☐ College Diploma

☐ Undergraduate Degree

☐ Graduate Degree Master's Level

☐ Graduate Degree Doctoral Level

☐ Other, please indicate: _____

What Canadian province or territory do you work in?

☐ Alberta	☐ Nova Scotia	☐ Nunavut
☐ British Columbia	☐ Ontario	☐ NW Territories
☐ Manitoba	☐ PEI	☐ Yukon
☐ Newfoundland & Labrador	☐ Quebec	
☐ New Brunswick	☐ Saskatchewan	☐ outside Canada

End of Survey – Thank you for your participation.

Table 1

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

| | Career Stage | | | |
Demographic	Early M or % (SD)	Mid M or % (SD)	Late M or % (SD)	Total M or % (SD)
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.

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

	Career Stage			
Work-related variable	Early M(SD)	Mid M(SD)	Late M(SD)	Total 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)

[a] Means differ significantly $p=.001$

128

Table 3

Correlations Between Predictor and Outcome Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Person-job fit	--	.53**	.77**	.30**	.22**	-.11	.48**	-.43**	-.55**	-.48**
2. Person-organization fit		--	.58**	.35**	.25**	-.14*	.66**	-.44**	-.51**	-.36**
3. Job satisfaction			--	.37**	.22*	-.21**	.57**	-.47**	-.65**	-.54**
4. Career commitment				--	.24**	-.24**	.44**	-.24**	-.31**	-.31**
5. Normative organizational commitment					--	.15*	.41**	-.13	-.19**	-.26**
6. Continuance organizational commitment						--	-.15*	.21**	-.21**	.03
7. Affective organizational commitment							--	-.28**	-.48**	-.41**
8. Work tension								--	.69**	.35**
9. Work-related depression, anxiety and irritation									--	.43**
10. Turnover intentions										--

*p <.05   **p <.01

129

Table 4

Regression analysis predicting job satisfaction, commitment, work tension, work-related depression, irritation and anxiety, and turnover intentions

Predictors	Job satisfaction β	Unique R^2	Affective commitment β	Unique R^2	Continuance commitment β	Unique R^2	Normative commitment β	Unique R^2	Career commitment β	Unique R^2	Work tension β	Unique R^2	Depression, anxiety & irritation β	Unique R^2	Turnover intentions β	Unique R^2
P-O Fit	.19***	.03	.56***	.22	-.12	.01	.19*	.02	.28***	.06	-.31***	.07	-.30***	.07	-.14*	.01
P-J Fit	.69***	.33	.19**	.03	-.05	.00	.13	.01	.16*	.02	-.31***	.07	-.39***	.11	-.41***	.12
Total R^2	.65***		.46***		.02		.08***		.15***		.28***		.37***		.25***	
N	234		235		235		235		234		234		235		235	

* $p<.05$, ** $p<.01$, *** $p<.001$

Table 5

Regression Results Using Career Stage and Person-Job and Person-Organization Fit to Predict Job Satisfaction (N=233)

Variable	B	SE	β	R^2 change
Step 1: Predictor variables				.671***
Early career stage	-.119	.147	-.037	
Late career stage	-.042	.117	-.016	
P-O fit centred	.149	.044	.155	
P-J fit centred	.947	.062	.718	
Step 2: Two-way interactions				.026**
Early career x P-O fit interaction	-.187	.131	-.076	
Early career x P-J fit interaction	.589	.174	.210**	
Late career x P-O fit interaction	-.258	.099	-.204*	
Late career x P-J fit interaction	.237	.147	.133	

* $p<.01$
** $p=.001$
*** $p<.001$

Table 6

Regression Results Using Career Stage and Person-Job and Person-Organization Fit to

Predict Affective Commitment (N=233)

Variable	B	SE	β	R^2 change
Step 1: Predictor variables				.485**
Early career stage	.322	.193	.096	
Late career stage	.393	.152	.146	
P-O fit centred	.586	.057	.580	
P-J fit centred	.240	.080	.170	
Step 2: Two-way interactions				.014
Early career x P-O fit interaction	-.256	.182	-.087	
Early career x P-J fit interaction	.568	.239	.171*	
Late career x P-O fit interaction	-.179	.131	-.138	
Late career x P-J fit interaction	.263	.196	.142	

**$p<.001$
* $p<.05$

Table 7

Regression Results Using Career Stage and Person-Job and Person-Organization Fit to Predict Career Commitment (N=233)

Variable	B	SE	β	R^2 change
Step 1: Predictor variables				.159*
Early career stage	.088	.265	.025	
Late career stage	.105	.208	.037	
P-O fit centred	.303	.075	.284	
P-J fit centred	.265	.111	.171	
Step 2: Two-way interactions				.031
Early career x P-O fit interaction	-.200	.240	-.064	
Early career x P-J fit interaction	.946	.339	.267*	
Late career x P-O fit interaction	-.051	.168	-.037	
Late career x P-J fit interaction	.292	.283	.148	

*$p<.01$

Table 8

Regression Results Using Career Stage and Person-Job and Person-Organization Fit to
Predict Work-related Depression and Anxiety (N=235)

Variable	B	SE	β	R^2 change
Step 1: Predictor variables				.377**
Early career stage	.109	.067	.102	
Late career stage	.014	.053	.016	
P-O fit centred	-.098	.019	-.310	
P-J fit centred	-.163	.028	-.370	
Step 2: Two-way interactions				.052*
Early career x P-O fit interaction	.054	.058	.065	
Early career x P-J fit interaction	-.305	.078	-.324**	
Late career x P-O fit interaction	.050	.042	.120	
Late career x P-J fit interaction	-.074	.065	-.124	

**$p<.001$
* $p=.001$

Table 9

Regression Results Using Career Stage and Person-Job and Person-Organization Fit to

Predict Turnover Intentions (N=235)

Variable	B	SE	β	R^2 change
Step 1: Predictor variables				.282**
Early career stage	-.119	.147	-.037	
Late career stage	-.042	.117	-.016	
P-O fit centred	.149	.044	.155	
P-J fit centred	.947	.062	.718	
Step 2: Two-way interactions				.044**
Early career x P-O fit interaction	.049	.115	.033	
Early career x P-J fit interaction	-.362	.155	-.211*	
Late career x P-O fit interaction	.241	.084	.316**	
Late career x P-J fit interaction	-.376	.129	-.347**	

* $p<.05$
** $p<.01$

135

Table 10

Important Organizational Characteristics for P-O Fit (N=191)

Values – important organizational and/or individual values	Frequency
Compassionate client-focused care / advocacy ➤ *"The goal of my organization is "patient's first" and all other roles support the bedside caregivers to make this possible."*	53
Recognize / respect / trust / treat with fairness ➤ "Fairness and equity in recognition of employees"	40
Excellence / quality and best practices ➤ *"Quality patient care is paramount."*	28
Professional development / learning opportunities ➤ "My employer and I both value education and the creation of a 'learning centred' environment.'"	17
Open / honest communication ➤ *"The organizational culture is one of openness and collegiality. The office doors are open, discussion happens naturally."*	16
Teamwork / multidisciplinary collaboration ➤ *"Strong teamwork environment."*	16
Supportive work environment ➤ *"The support from staff when facing a problem or challenge."*	16
Work-life balance / workload expectations / pay & benefits ➤ "Family life has to be considered."	13
Consistent, clear expectations ➤ *"This is difficult because what the organization states its values are and the values that are apparent in its actions and policies are very different."*	11
Leadership / vision of organization ➤ *"Organized, think about the client and their employees, think of the 'big picture.'"*	10
Foster creativity / innovation ➤ *"Encouragement to think creatively. "*	9
Ethical / integrity ➤ *"I am morally/ethically opposed to actions/decisions of leaders."*	5
Environmental awareness ➤ *"The value that does not fit in with mine is being environmentally aware...most hospitals create a lot of environmental waste."*	3
Physical Environment	Frequency (n=191)
Organization size, structure, staffing and resources ➤ *"Adequate resources to do my job properly (adequate staffing levels, IT, proper equipment..."*	6

136

Table 11

Important Job Characteristics for P-J Fit for all Nurses (N=217) and New Nurses (n=42)

Supplies of job - needs of individual: employees' needs, desires or preferences are met by the tasks that make up the job that they perform.	Frequency (all nurses n=217)	Frequency (new nurses n=42)
Independence / autonomy ➤ *"I work in Occupational Health, and it requires a lot of independence. I really like the autonomy I have."*	50	9
Stimulating/ challenging/ new experiences and variety of meaningful work/ creativity / innovation ➤ *"Given a challenge and opportunity to participate in new projects."* ➤ *"Allows me to think outside the box and come up with new ideas that will streamline patient care."*	38	11
Flexible schedule / workload / pay & benefits ➤ *"The ability to work different shifts … to meet the demands of my family. The pay is fairly acceptable"*	35	13
Client-focused quality care / advocacy ➤ *"Strong belief in nurse as patient advocate."*	27	6
Teamwork / multidisciplinary collaboration ➤ *"Working as an integral part of a multidisciplinary team."*	23	9
Job satisfaction ➤ *"The job itself provides me with satisfaction…"*	11	1
Respectful /supportive work environment ➤ *"Respect from senior management and doctors."*	9	1
Professional development / learning opportunities ➤ *"Having the opportunity to learn is a very important characteristic."*	8	1
Fairness ➤ *"Consistent and fair with employees"*	5	0
Occupational health and safety	2	1

137

Job demands – Individual ability: employees' knowledge, skills and abilities are commensurate with what the job requires	Frequency (all nurses n=217)	Frequency (new nurses n=42)
Nursing-related knowledge, experience, assessment skills ➢ *"Previous medical, surgical, and ICU experience are helpful in this work."*	30	10
Critical thinking and decision-making skills ➢ *"This is a management position where you have to be able to think quickly and act decisively."*	24	8
Communication skills ➢ *"My ability to convey information to a variety of individuals."*	21	1
Leadership, mentoring, teaching skills ➢ *"Mentoring and supervising other RNs in their practice."*	20	3
Interpersonal/ relationship building skills ➢ *"Requires a lot of 'relationship building' and interpersonal communication."*	20	0
Organizational skills	19	3
Prioritization / time management skills ➢ *"The ability to prioritize workload to make effective use of time."*	14	1
Problem-solving skills	13	1
Openness / non-judgmental / compassionate ➢ *"The ability to deal with people without passing judgment."*	8	2
Responsible/ accountable ➢ *"Responsibility and accountability to the public."*	7	2
Stress management skills ➢ *"Work in a stressful environment (CCU) and work well under stress."*	6	1
Computer / technological skills ➢ *"Use of electronic medical records."*	5	0
Motivation/ motivated ➢ "Self-starter, motivated."	4	3
Patience	3	1
Physical fitness ➢ *"Hard physical labour needed, I am in good shape."*	3	2
Professionalism	2	1

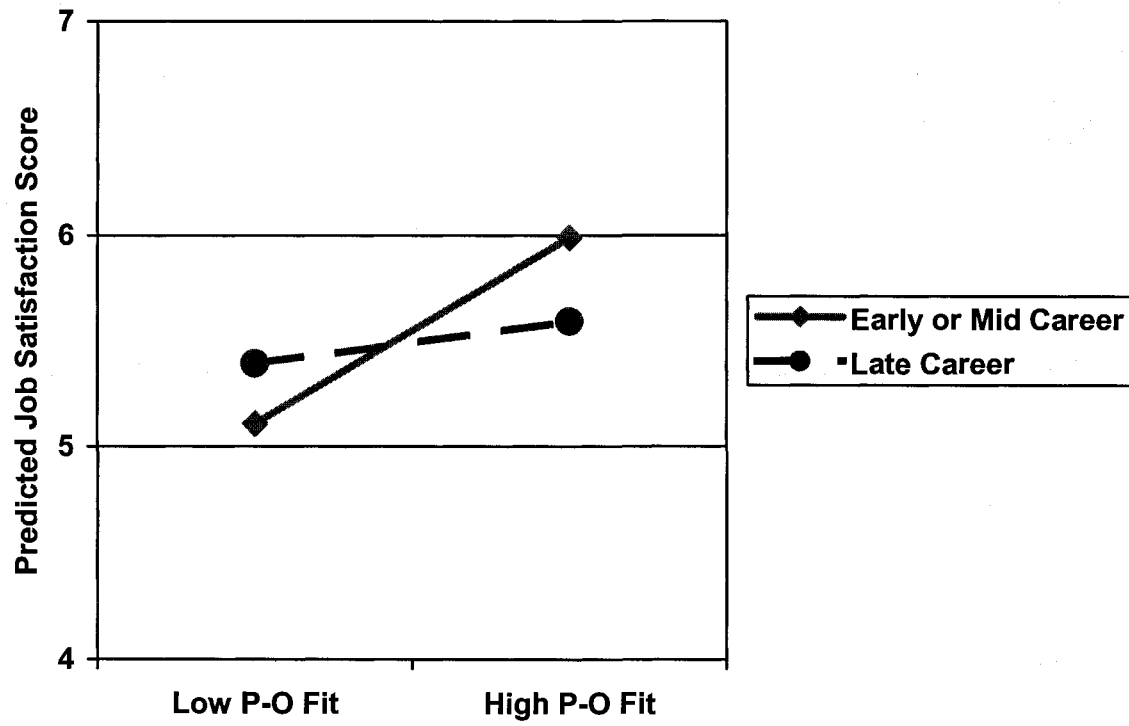Figure 1: Predicting Job Satisfaction Using P-O Fit and Late Career Stage Interaction

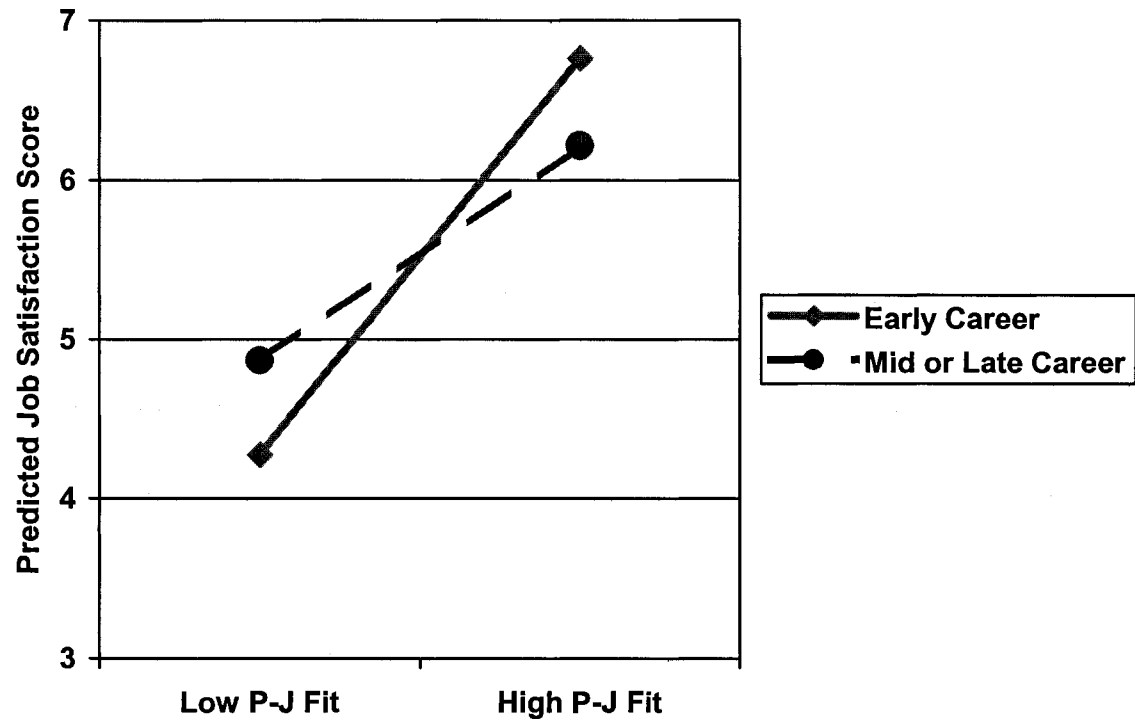Figure 2: Predicting Job Satisfaction Using P-J Fit and Early Career Stage Interaction

Figure 3: Predicting Affective Commitment Using P-J Fit and Early Career Interaction
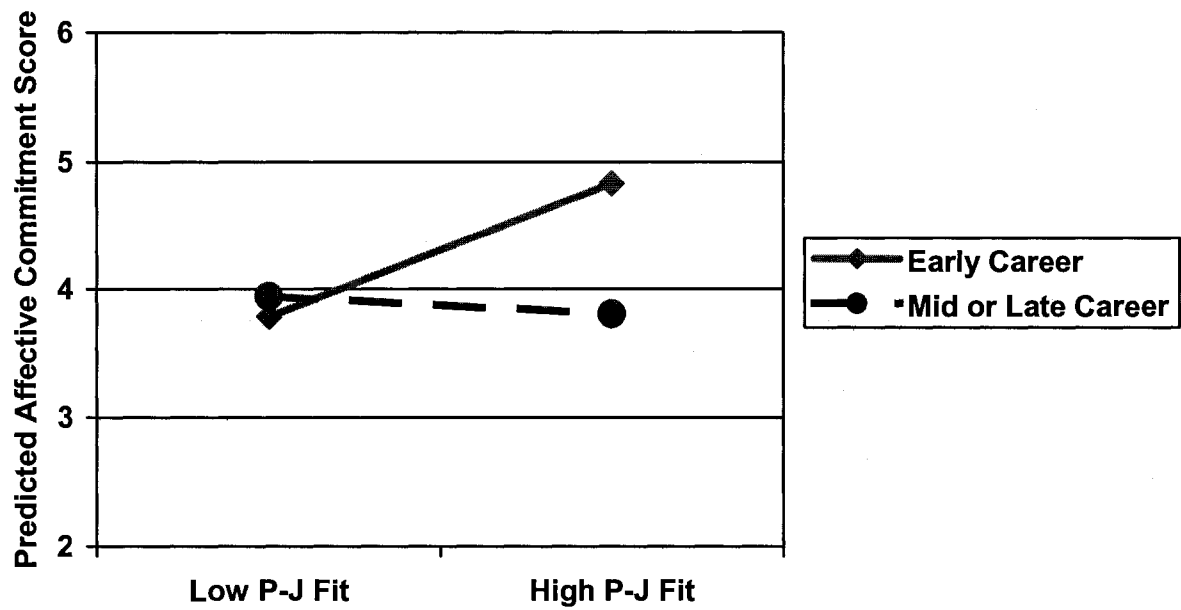
Figure 4: Predicting Career Commitment Using P-J Fit and Early Career Stage Interaction
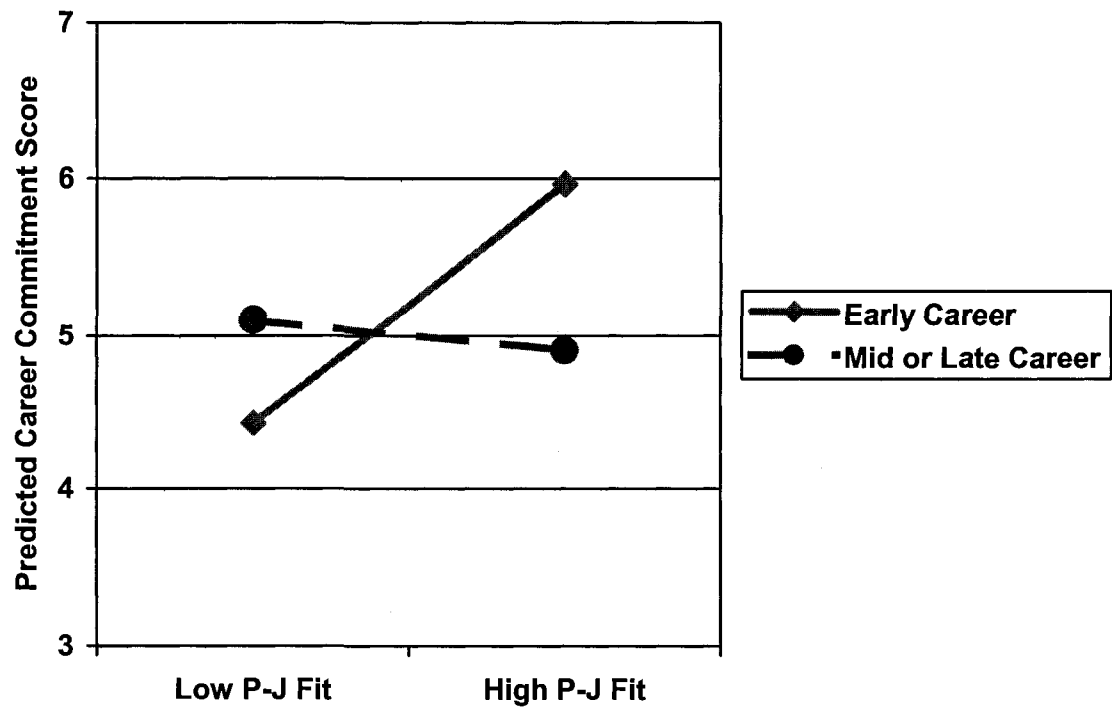
Figure 5: Predicting Work-Related Depression & Anxiety Using P-J Fit and Early Career
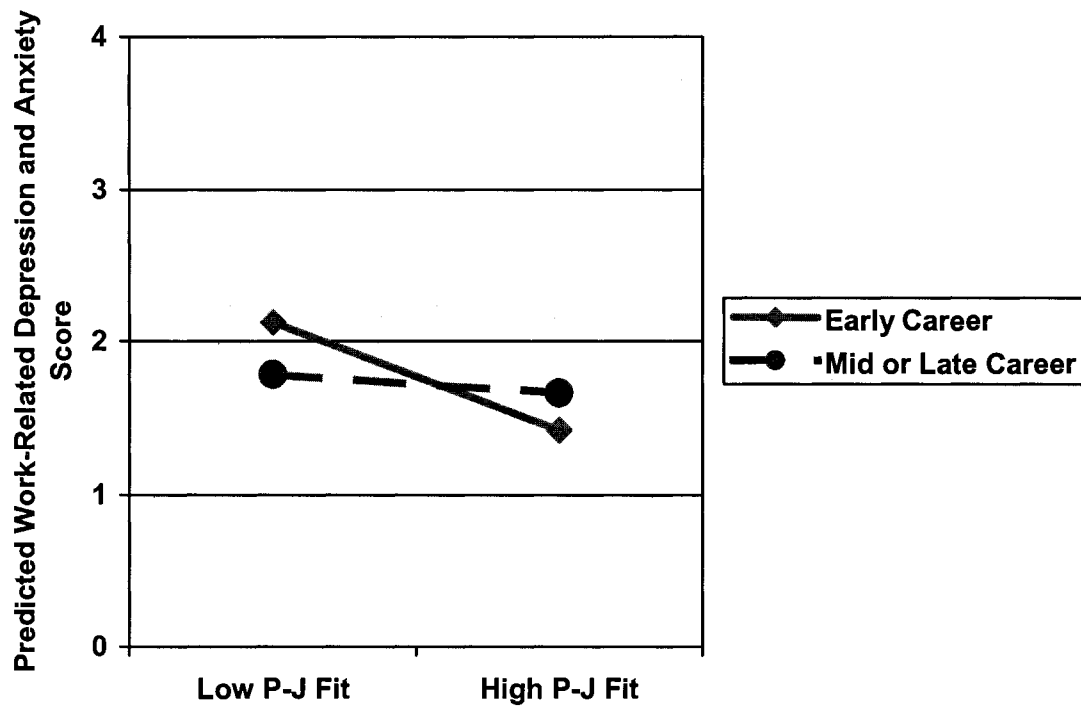Interaction

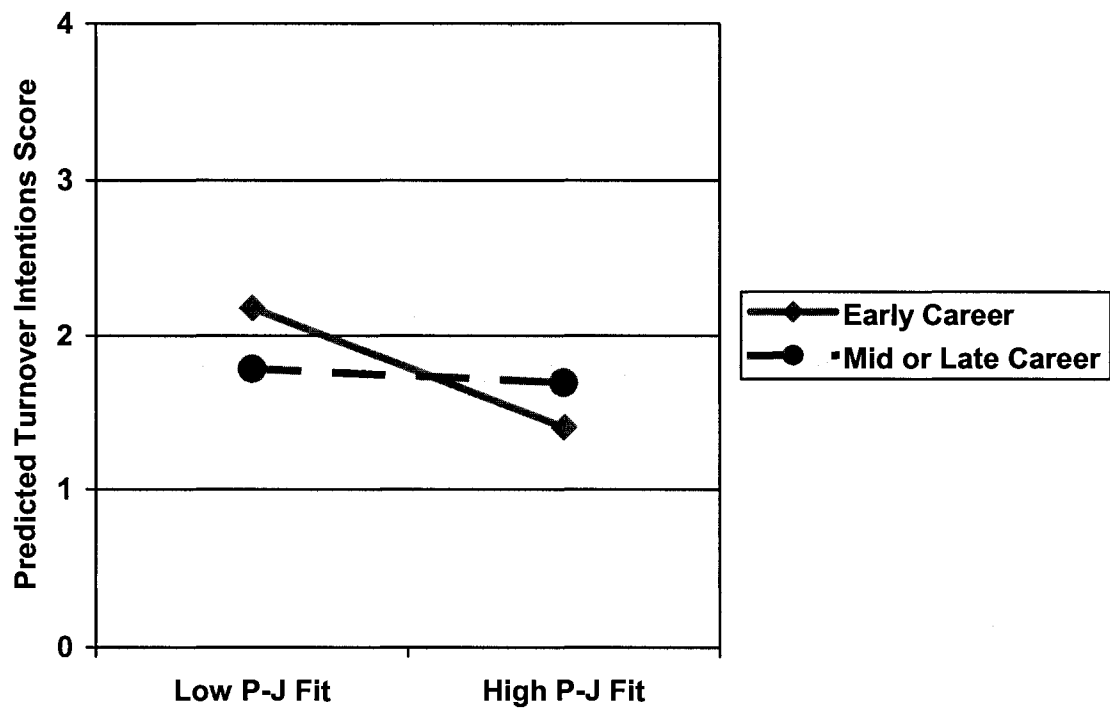Figure 6: Predicting Turnover Intentions Using P-J Fit and Early Career Interaction

Figure 7: Predicting Turnover Intentions Using P-J Fit and Late Career Stage Interaction
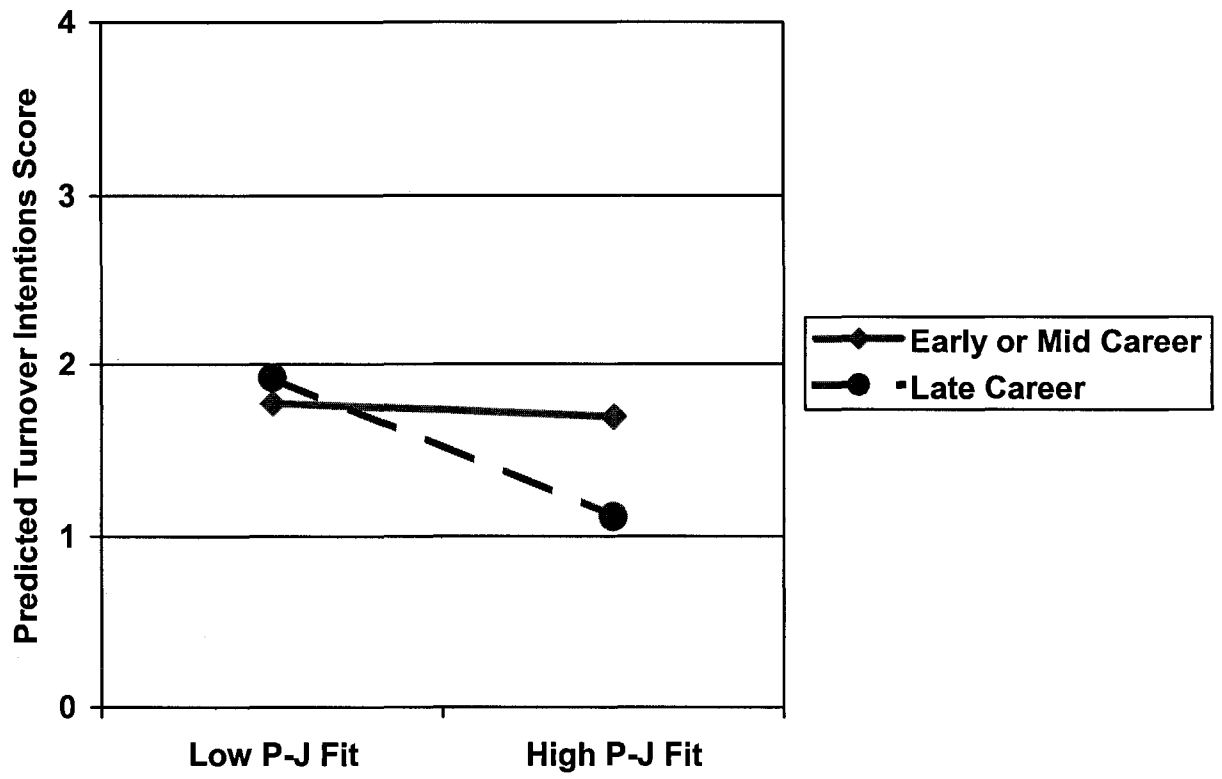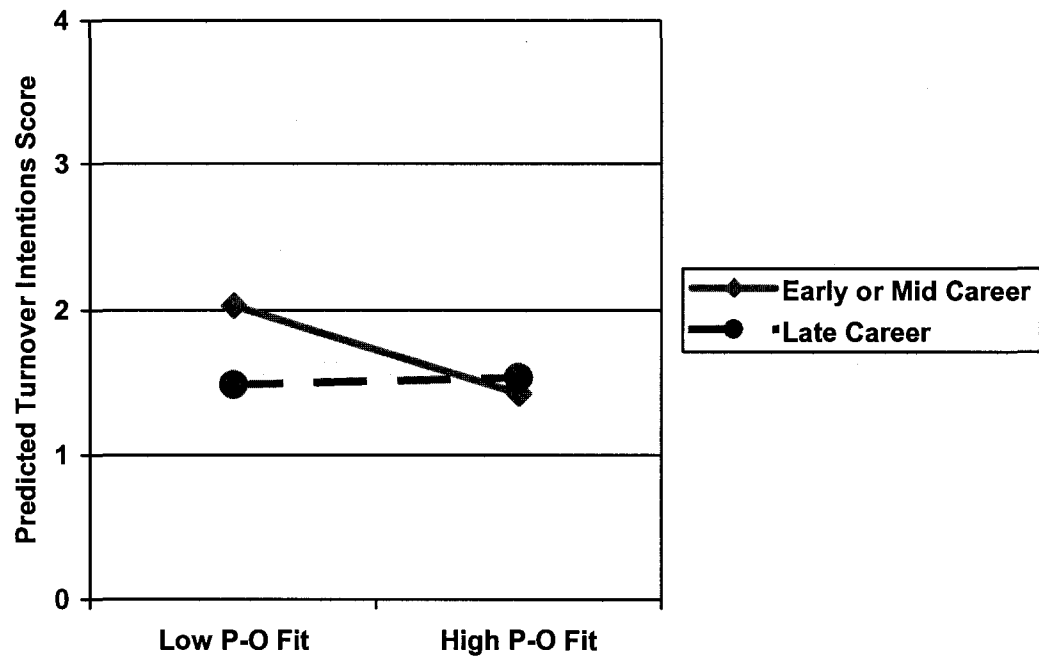
Figure 8: Predicting Turnover Intentions Using P-O Fit and Late Career Stage Interaction

VITA AUCTORIS

Simone Arbour was born in 1977 in Toronto, Ontario. She graduated from Cardinal Leger High School in 1996. From there she went on to the University of Western Ontario where she obtained a Hon. BA in Psychology in 2001. In 2003, she completed her Master's degree in Psychology at the University of Windsor and is currently a PhD candidate, hoping to graduate in Fall 2008.