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Motivational pathways of occupational and organizational turnover intention among newly registered nurses in Canada

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ABSTRACT

Background: Staff turnover is a major issue for health care systems. In a time of labor shortage, it is critical to understand the motivational factors that underlie turnover intention in newly licensed nurses.

Purpose: To examine whether different forms of motivation (the reasons for which nurses engage in their work) predict intention to quit the occupation and organization through distinct forms (affective and continuance) and targets (occupation and organization) of commitment.

Methods: Cross-sectional data were collected from a sample of 572 French–Canadian newly registered nurses working in public health care in the province of Quebec, Canada. The hypothesized model was tested by structural equation modeling.

Findings: Autonomous motivation (nurses accomplish their work primarily out of a sense of pleasure and satisfaction or because they personally endorse the importance or value of their work) negatively predicts intention to quit the profession and organization through target-specific affective commitment. However, although controlled motivation (nurses accomplish their work mainly because of internal or external pressure) is positively associated with continuance commitment to the occupation and organization, it directly predicts, positively so, intention to quit the occupation and organization.

Conclusion: These results highlight the complexity of the motivational processes at play in the turnover intention of novice nurses, revealing distinct forms of commitment that explain how motivation quality is related simultaneously to intention to quit the occupation and organization. Health care organizations are advised to promote autonomous over controlled motivation to retain newly recruited nurses and sustain the future of the nursing workforce.

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Introduction

Turnover intention in newly licensed registered nurses has become a major issue in health care organizations around the world (Brewer, Kovner, Greene, Tukov-Shuser, & Djukic, 2012). Nurses regularly cope with overwhelming problems, both professional (e.g., excess workload and lack of job control or social support; Chiu, Chung, Wu, & Ho, 2009) and personal (e.g., burnout, psychological strain; Laschinger & Fida, 2014) at career start. Many think about quitting the occupation and organization, and large numbers do so (Hayes et al., 2012).

In Canada, and more particularly in Québec (the province where the present study was conducted), 9% of nurses fail to renew their license in the first 5 years of their career (Marleau & Lapointe, 2014), and 13% of nurses report strong intention to quit the occupation (Lavoie-Tremblay, O'Brien-Pallas, Gélinas, Desforges, & Marchionni, 2008). These numbers are comparable with those in other countries. For example, in Sweden, Rudman, Gustavsson, and Hultell (2014) determined that from 9% to 18% of novice nurses intended to quit the profession. These statistics are alarming, especially in a time of labor shortage. Staff turnover incurs substantial organizational costs, both direct (e.g., recruiting, replacement) and indirect (e.g., loss of productivity and organizational knowledge). It also compromises the quality of health care delivery and the overall effectiveness of health care systems (Hayes et al., 2012).

In a recent empirical review of 31 studies, Flinkman, Leino-Kilpi, and Salanterä (2010) made a persuasive argument for the need to gain a better understanding of why nurses intend to leave the profession. We believe that the knowledge of turnover intention in nurses remains sparse because most studies have addressed motivational correlates (e.g., job satisfaction, commitment) of turnover rather than the quality of motivation per se, or the underlying reasons for being fully engaged (or not) in the job. Growing empirical evidence shows that employees who engage in job tasks for the inherent enjoyment and satisfaction or because they fully endorse their importance and value (i.e., autonomous motivation) are more likely to be satisfied at work and committed to their occupation and organization. In contrast, employees who engage in tasks under the influence of internal or external pressures (i.e., controlled motivation) report less satisfaction and commitment (Fernet, 2013; Fernet, Trépanier, Austin, Gagné, & Forest, 2015). A more nuanced understanding of the motivational regulations that culminate in turnover intention in nurses could bring new insights into how to prevent actual

turnover. Furthermore, the research has been relatively silent on the motivational processes that could distinctly explain nurses' occupational and organizational turnover intention at career start. An important motivational mechanism that has been linked to turnover intention is commitment in nurses (e.g., Brunetto et al., 2013; Jourdain & Chênevert, 2010). As such, could form- and target-specific commitment explain different pathways through which autonomous and controlled motivation acts on occupational and organizational turnover intention? A more comprehensive theoretical understanding of this issue would shed light on whether occupational and organizational turnover intention at career start is attributable to different motivational forces (autonomous and controlled motivation) that can concurrently fuel different forms (affective and continuance) and targets (occupational and organizational) of commitment. Greater insight into these motivational pathways would also help policymakers and health care managers better prevent turnover.

Background

Occupational and Organizational Commitment

Meyer and Herscovitch (2001) defined commitment as "a force that binds an individual to a course of action of relevance to one or more targets" (p. 301). This force can take the form of different mindsets, which can be directed toward different targets, such as the occupation or the organization. Affective commitment refers to the emotional attachment to or with the occupation (also called profession) or the organization (also called health care facility). Continuance commitment refers to the necessity to stay in a given occupation or organization in view of the perceived costs of leaving. Normative commitment refers to a sense of obligation to stay in an occupation or organization. Although the research demonstrates the relevance of considering these forms of commitment (Meyer, Allen, & Smith, 1993; Meyer, Morin, & Vandenberghe, 2015), some studies have found that normative commitment is strongly associated with affective commitment, suggesting that they capture the same construct (Meyer & Herscovitch, 2001). Accordingly, several scholars (e.g., Gill, Meyer, Lee, Shin, & Yoon, 2009) have focused solely on affective and continuance forms of commitment, the most distinguishable dimensions. This approach was adopted in the present study.

The scientific interest in distinguishing between commitment forms and targets lies largely in the idea

that they are distinctly associated with consequences for individuals and organizations.¹ Turnover is viewed as one of the main consequences of commitment (Meyer et al., 2015). With respect to organizational commitment, the meta-analysis by Meyer, Stanley, Herscovitch, and Topolnytsky (2002) reveals that although affective and continuance commitment are negatively associated with intention to quit the job and turnover, affective commitment is the more strongly associated of the two. Turning to occupational commitment, the meta-analysis by Lee, Carswell, and Allen (2000) focusing solely on affective commitment indicates that this dimension is negatively associated with occupational turnover intention and to a lesser extent with organizational turnover intention and actual organizational turnover.

In nursing studies, the empirical evidence supports a negative relationship between nurses' commitment and intention to quit the organization (Brunetto et al., 2013) or the occupation (Ingersoll, Olsan, Drew-Cates, DeVinney, & Davies, 2002; Jourdain & Chênevert, 2010). Of the studies that distinguish between affective and continuance commitment in novice nurses, the study by Chang, Du, and Huang (2006) in Taiwan reveals that affective and continuance organizational commitment are negatively associated with organizational turnover intention, whereas affective and continuance occupational commitment are negatively associated with occupational turnover intention. More importantly, their findings show some correspondence with the targets (organization vs. occupation) of turnover intention. Except for affective organizational commitment, which is more strongly associated with occupational than organizational turnover intention, all the commitment dimensions are more strongly associated with their respective targets.

Autonomous and Controlled Motivation

Self-determination theory (SDT; Deci & Ryan, 2000) provides a multidimensional perspective on work motivation. It proposes that employees engage in their

tasks due to motivations that are more or less self-determined, and which considerably influence their cognitions, affects, and actions. These motivations correspond to different reasons for which employees expend their efforts at work. More specifically, SDT distinguishes between two main forms of motivation: autonomous and controlled. Autonomous motivation corresponds to efforts deployed for the inherent pleasure and satisfaction of the task itself (intrinsic motivation) or because it allows achieving objectives that align with one's personal values (identified regulation). Controlled motivation, on the other hand, refers to efforts deployed to comply with internal pressures (introjected regulation; e.g., avoiding anxiety or guilt, or bolstering one's feelings of self-worth) or external pressures (external regulation; e.g., avoiding sanctions or obtaining material or social reward). Although nursing work involves numerous constraints, including various regulatory actions, nurses are likely to develop and maintain autonomous motivation when they understand the value and utility of their tasks, feel ownership and autonomy when carrying them out, and receive clear direction, feedback, and support (Deci, Olafsen, & Ryan, 2017).

In the workplace, autonomous motivation has been positively associated with various adaptive attitudes, including job satisfaction (e.g., Gillet, Gagné, Sauvagère, & Fouquereau, 2013) as well as affective organizational (e.g., Gagné, Chemolli, Forest, & Koestner, 2008) and occupational commitment (e.g., Fernet, Austin, & Vallerand, 2012; Fernet et al., 2015). In contrast, controlled motivation has been positively associated with organizational continuance commitment (Meyer, Stanley, & Parfyonova, 2012) as well as organizational (e.g., Gillet et al., 2013) and occupational turnover intention (e.g., Fernet et al., 2015) and actual organizational turnover (e.g., Richer, Blanchard, & Vallerand, 2002). Only the study by Fernet et al. (2015) examines newly registered nurses (mean years of experience = 3.47), revealing a positive relationship between affective occupational commitment and autonomous motivation. However, no significant relationship was found for controlled motivation.

In theoretical terms, the relationships between work motivation and commitment forms may be explained by the internalization process. According to SDT (Deci & Ryan, 2000), this process refers to the ways through which individuals assimilate contingencies present in the environment into the self. On the one hand, the more autonomously motivated nurses are, the more they feel affectively attached to their occupation or organization because they freely endorse the work values and fully accept them as their own. On the other hand, the more controlled motivated nurses are, the more their attachment to the occupation or organization would be driven by a sense of obligation or necessity, reflecting partial internalization of the values and meaning they attribute to the work. Although only a few studies have addressed quality of work motivation in nurses, some studies suggest that it

¹ It is important to mention that commitment is generally examined using either of two approaches: person centered or variable centered. The person-centered approach is used to identify within a sample of employee subgroups that share a similar commitment profile in terms of forms (e.g., affective, continuance) and/or targets (e.g., occupation, organization). The variable-centered approach is used to consider individual commitment forms and/or targets across individuals and examine each commitment form or target in relation to other variables. Although we recognize that the commitment forms and targets may be combined and experienced in different ways within the person, we adopted a variable-centered approach in this study to deepen our understanding of the relationship each form and target of commitment holds with work motivation (autonomous and controlled) as well as their role in the prediction of nurses' intention to quit the occupation and organization.

is a precursor to nurses' occupational and organizational commitment as well as turnover intention.

With respect to organizational commitment, a longitudinal study by [Gagné et al. \(2008; study 2\)](#), conducted in employees of an auto parts production firm, shows that autonomous motivation at time 1 positively predicts affective commitment at time 2 (6 months later). Regarding occupational commitment, a longitudinal study by [Fernet et al. \(2012\)](#), conducted in school principals, shows that autonomous motivation at time 1 positively predicts affective occupational commitment at time 2 (9 months later) but not the inverse (i.e., commitment at time 1 does not significantly predict autonomous motivation at time 2). No crosslagged relationships were observed between controlled motivation and affective occupational commitment. Although these studies further the understanding of the relationship between motivation and affective commitment, neither did they assess normative commitment nor did they address whether autonomous and controlled motivation act simultaneously on different commitment targets (the occupation and organization) in newly registered nurses.

The Aim and Hypotheses of the Present Study

This study aimed to deepen our understanding of the motivational factors involved in the turnover intention of newly licensed nurses. Drawing on the model of [Meyer and Allen \(1991; Meyer et al., 1993\)](#) of commitment and SDT ([Deci & Ryan, 2000](#)), we propose a motivational model of nurse turnover intention. This model posits that the quality of work motivation (autonomous vs. controlled) acts distinctly on intention to quit the occupation and organization through specific forms (affective vs. continuance) and targets (occupational vs. organizational) of commitment. The present study contributes to the research on nurse turnover in three ways. First, despite repeated calls by researchers (e.g., [Hayes et al., 2006; Irvine & Evans, 1995](#)), the understanding of why nurses choose to quit their job (occupation and organization) remains limited ([Gilmartin, 2013](#)). Based on well-established theoretical foundations, the present study aims to contribute to the knowledge by identifying the forms of motivation (autonomous and controlled) and commitment (affective and continuance) that are liable to explain turnover intention in nurses at career start. Second, the current notion of turnover intention is somewhat vague ([Hayes et al., 2012](#)), whereas our model considers two different forms (affective and continuance) and targets (occupation and organization) of commitment to account for distinct but complementary motivational processes. This will provide a deeper and more precise understanding of the role of the motivational factors involved in nurses' intention to quit the occupation and organization. Third, because turnover intention fluctuate depending on the career stage ([Ingersoll et al., 2002](#)), it is necessary to focus on specific career stages. This study addresses the

beginning of the nursing career (5 first years), a pivotal time for the construction and deployment of work motivation processes ([Fernet et al., 2015](#)). In practical terms, this study aims to identify the motivational factors that can help prevent turnover intention in nurses, thereby reducing the significant organizational costs associated with actual turnover.

Based on the aforementioned theoretical rationale and the available empirical studies, we propose the following hypotheses:

Hypothesis 1: Affective occupational commitment is negatively associated with occupational turnover intention.

Hypothesis 2: Continuance occupational commitment is negatively associated with occupational turnover intention.

Hypothesis 3: Affective organizational commitment is negatively associated with organizational turnover intention.

Hypothesis 4: Continuance organizational commitment is negatively associated with organizational turnover intention.

Hypothesis 5: Autonomous motivation is positively associated with affective occupational commitment.

Hypothesis 6: Controlled motivation is positively associated with continuous occupational commitment.

Hypothesis 7: Autonomous motivation is positively associated with affective organizational commitment.

Hypothesis 8: Controlled motivation is positively associated with continuous organizational commitment.

These hypotheses implicitly assume that autonomous and controlled motivation are associated with occupational and organizational turnover intention through affective and continuance commitment. We further propose that these mediating pathways are relatively independent, such that occupational commitment is more predictive of occupational turnover intention, whereas organizational commitment is more predictive of organizational turnover intention ([Chang et al., 2006](#)). Partial support for this proposition is provided by the study of [Galletta, Portoghese, and Battistelli \(2011\)](#) of registered nurses, which found an indirect effect of intrinsic motivation (which is prototypically autonomous) on organizational turnover intention through affective organizational commitment. This leads to the following hypotheses:

Hypothesis 9: Autonomous motivation is associated with occupational turnover intention through affective occupational commitment.

Hypothesis 10: Controlled motivation is associated with occupational turnover intention through continuance occupational commitment.

Hypothesis 11: Autonomous motivation is associated with organizational turnover intention through affective organizational commitment.

Hypothesis 12: Controlled motivation is associated with organizational turnover intention through continuance organizational commitment.

Method

Study Design and Sample

Cross-sectional data were collected from a sample of French–Canadian newly registered nurses working in public health care in the province of Quebec, Canada. The sample was built from a list of 3,800 members of the Ordre des infirmières et des infirmiers du Québec (Quebec Nursing Association). These nurses were sent a letter describing the study objective and asking them to complete an online questionnaire. Of the 637 respondents, 572 (89.8%) met the inclusion criteria of having 5 years or less of experience. Approval for the study was obtained from the research ethics board of the researchers' institution.

Measures

All measures, which were either developed or already validated in French using the standard back-translation technique (Brislin, 1980) as recommended by Vallerand (1989), were administered in French. To determine measurement reliability, Hancock's coefficient (i.e., coefficient H) was calculated (Hancock & Mueller, 2001) using standardized factor loadings to estimate the stability of the latent constructs across multiple observed variables. Values equal to or greater than 0.70 are deemed satisfactory (Hancock & Mueller, 2001). Properties (means, standard deviations [SDs], and latent correlations) are presented in Table 1.

Autonomous and Controlled Motivation

The Revised Motivation at Work Scale (R-MAWS; Gagné et al., 2015) was used to assess motivational regulations. Participants rated on a seven-point scale from 1 (not at all for this reason) to 7 (exactly for this reason) their primary reasons for performing their job. Autonomous motivation was assessed through two motivational

dimensions: identified regulation (three items; e.g., *Because this job has a personal significance for me*) and intrinsic motivation (three items; e.g., *Because my work is stimulating*). The mean subscale scores were used as indicators of the latent construct of autonomous motivation ($H = 90$). Controlled motivation was assessed through two motivational dimensions: external regulation (three items; e.g., *To get others' approval*) and introjected regulation (three items; e.g., *Because otherwise, I would be ashamed of myself*), and the mean subscale scores were used as indicators of the latent construct of controlled motivation ($H = 0.80$). The validation study (Gagné et al., 2015), conducted in seven different languages, revealed that the R-MAWS has adequate psychometric properties (e.g., convergent and discriminant validity).

Organizational and Occupational Commitment

Organizational and occupational (affective and continuance) commitment were assessed using an adapted version of the scale of Meyer et al. (1993). Each form of commitment was captured by three items. Sample items are as follows: *The nursing profession means a lot to me* (affective occupational commitment; $H = 0.72$); *I will not leave the nursing profession because I spent too much energy learning it* (continuance occupational commitment; $H = 0.93$); *I am proud to belong to this organization* (affective organizational commitment; $H = 0.76$); and *Leaving my current organization would have many more disadvantages than advantages* (continuance organizational commitment; $H = 0.64$). Each item was scored on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree) and used as an indicator of the respective latent construct. The validation study (Meyer et al., 1993) provides support for the factorial structural and internal consistency of the scale.

Occupational and Organizational Turnover Intention

Occupational and organizational turnover intentions were assessed using a single item each, adapted from O'Driscoll and Beehr (1994): *I am thinking about leaving my current health care facility* (organizational turnover intention) and *I am thinking about leaving the nursing profession* (occupational turnover intention). Each item

Table 1 – Means, Standard Deviations, and Correlations Between Variables

Variable	Scale	Mean	Standard Deviation	1	2	3	4	5	6	7
1. Autonomous motivation	1–7	5.59	0.91	—						
2. Controlled motivation	1–7	4.19	1.20	0.07	—					
3. Affective occupational commitment	1–5	4.17	0.79	0.55*	−0.06	—				
4. Continuance occupational commitment	1–5	3.03	1.19	0.10*	0.31*	0.18*	—			
5. Affective organizational commitment	1–5	3.79	1.00	0.29*	−0.08*	0.30*	−0.01	—		
6. Continuance organizational commitment	1–5	2.02	0.82	0.04	0.15*	0.07	0.26*	0.08*	—	
7. Occupational turnover intention	1–7	1.86	1.47	−0.35*	0.17*	−0.59*	−0.13*	−0.31*	−0.11*	—
8. Organizational turnover intention	1–7	2.88	2.04	−0.21*	0.15*	−0.28*	0.04	−0.50*	−0.24*	0.40*

* $p \leq .05$.

was scored on a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and used as an indicator of the respective latent construct. Single items are commonly used to appraise turnover intention (e.g., Lavoie-Tremblay, Trépanier, Fernet, & Bonneville-Roussy, 2014), and they have shown significant relationships with turnover (e.g., Spector, 1991). The scale used in the present study has shown high internal consistency in previous studies (e.g., O'Driscoll & Beehr, 1994; Richer et al., 2002).

Analytic Strategy

Model adequacy was tested by structural equation modeling using MPlus (Muthén & Muthén, 2012). All models were assessed with standardized coefficients obtained using maximum likelihood estimation. To determine the model fit, the comparative fit index (CFI), Tucker–Lewis fit index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used. Values above 0.90 and 0.95 for CFI and TLI indicate a satisfactory and excellent fit, respectively (Hoyle, 1995), and values of 0.08 or less for RMSEA and SRMR are deemed acceptable (Browne, Cudeck, Bollen, & Long, 1993). Next, because the proposed model involved indirect effects, bootstrapping analyses were conducted to investigate more precisely the role of affective and continuance commitment (occupational and organizational) in the relationship between work motivation (autonomous and controlled) and turnover intention (occupational and organizational). Specifically, 95% confidence intervals (95% CIs) were computed from 1,000 bootstrap samples (Preacher & Hayes, 2008).

Finally, because commitment forms and targets can combine and be experienced in different ways (Meyer & Herscovitch, 2001; Meyer et al., 2015), we explored interactions among these variables. Specifically, we conducted hierarchical regression analyses using SPSS version 24 (IBM Corp., Armonk, New York, 2016), in which commitment forms or targets interacted in predicting occupational and organizational turnover intention (e.g., affective organizational commitment and continuance occupational commitment in the prediction of organizational turnover intention). Analyses were performed in two steps: main effects were entered in step 1 and the interaction term in step 2. To avoid multicollinearity problems, all variables were

mean centered before interaction terms were computed.

Findings

Participants

A total of 572 registered nurses participated in the study (17% response rate).² Despite the relatively low response rate, the sample is fairly representative of the available demographics of novice nurses (with less than 5 years' experience) in the association at that time (e.g., 86% were women; mean age, 28.3 years; 47% worked full time). Specifically, most participants were women ($n = 505$; 88.3%), mean sample age was 28.5 ($SD = 0.95$), average years of experience in the profession was 2.6 ($SD = 0.95$), 76.9% ($n = 440$) held a permanent position, and 55.6% ($n = 318$) worked full time.

Preliminary Results

We first performed a multivariate analysis of variance to determine the effect of background variables (gender, job tenure, job status, and nursing practice role) on the variables included in the proposed model. As no significant differences were found ($p > .05$), background variables were excluded from subsequent analyses. Next, a measurement model was tested (factor loadings above 0.244, $p < .01$) and provided a satisfactory fit to the data: $\chi^2(271) = 599.532$; CFI = 0.922; TLI = 0.906; RMSEA = 0.054 (95% CI = 0.048–0.059); and SRMR = 0.070.

Testing the Hypothesized Model

Before testing the proposed model (Figure 1), the correlation matrix was examined. All proposed links were significant (Table 1). The proposed model (M1) was therefore tested in its entirety and provided an acceptable fit to the data: $\chi^2(120) = 329.620$; CFI = 0.924; TLI = 0.903; RMSEA = 0.063 (95% CI = 0.055–0.071); and SRMR = 0.069. A subsequent model consisting of M1 with the inclusion of crosslinks (e.g., controlled motivation and affective commitment, organizational commitment and occupational turnover intention) was then considered to investigate whether autonomous and controlled motivation influence organizational and occupational turnover intention through distinct processes. An examination of the correlation matrix revealed three nonsignificant crosslinks: autonomous motivation and continuance organizational commitment, controlled motivation and affective occupational commitment, and continuance occupational commitment and organizational turnover intention (Table 1), which were omitted from M2. As such, M2 consisted of M1 with the addition of five crosslinks. This model provided adequate fit to the data ($\chi^2(115) = 316.609$; CFI = 0.927; TLI = 0.903;

² The 17% response rate is difficult to determine with certainty due to issues encountered in the sampling frame. Although we targeted nurses with 5 years or less of experience, we had no control over the structure of the registry database. The obtained list covered a larger than expected range of experience. We therefore could not definitively determine the number of nurses on the initial list who actually had 5 years or less of experience, or the number of nurses with more experience who would have been ineligible, and hence did not participate in the project. Thus, the response rate is probably underestimated.

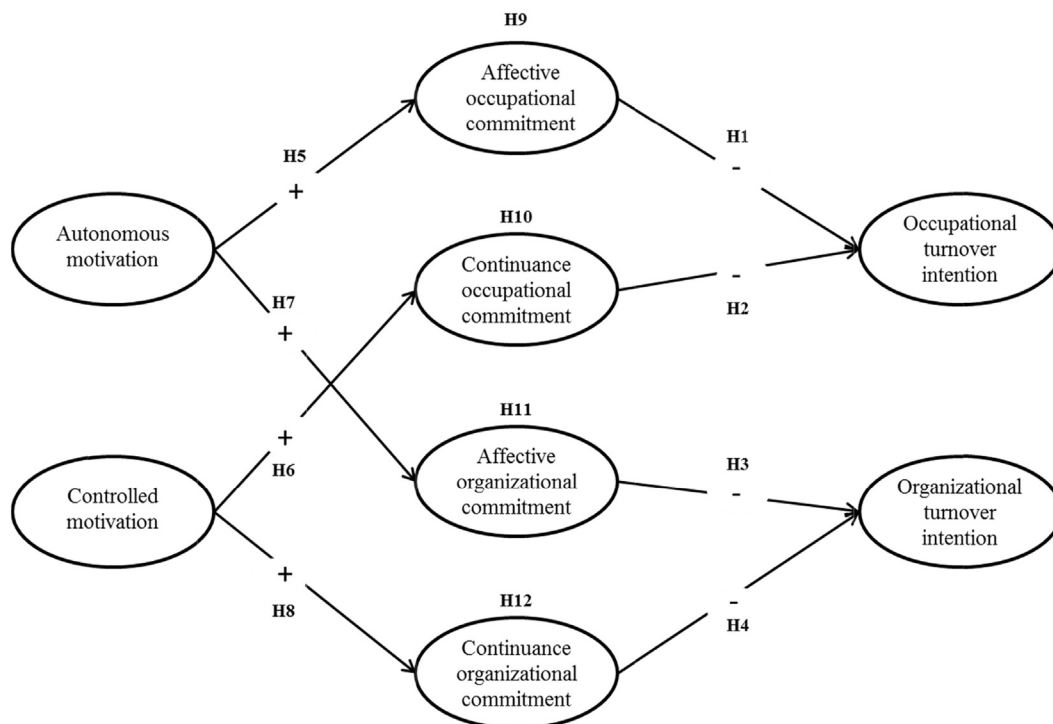


Figure 1 – Theoretical model.

RMSEA = 0.063 [95% CI = 0.055–0.071]; and SRMR = 0.067) and significant improvement over M1 ($\Delta\chi^2[5] = 13.027$; $p = .023$). Given that past research shows that work motivation can influence turnover intention (e.g., Fernet et al., 2015), a third model (M3) including direct links from work motivation to turnover intention was tested, as all direct relationships were significant (Table 1). The results show that M3 provided adequate fit to the data ($\chi^2(111) = 290.240$; CFI = 0.935; TLI = 0.911; RMSEA = 0.061 [95% CI = 0.052–0.069]; and SRMR = 0.062) and significant improvement over M2 ($\Delta\chi^2[4] = 26.369$; $p < .001$). Model M3 was therefore considered the best fitting model (Figure 2).

The results show that affective occupational commitment was negatively related to occupational turnover intention, whereas continuance occupational commitment showed no significant relationship with occupational turnover intention. These results support hypothesis 1 but not hypothesis 2. The results on organizational turnover intention show that both forms of organizational commitment (affective and continuance) negatively predicted this outcome, supporting hypotheses 3 and 4. Affective occupational commitment also negatively predicted organizational turnover intention. In addition, autonomous motivation positively predicted affective occupational commitment and affective organizational commitment, supporting hypotheses 5 and 7, whereas controlled motivation positively predicted continuance occupational commitment and continuance

organizational commitment, supporting hypotheses 6 and 8. The results also reveal two positive and significant relationships between controlled motivation and both occupational and organizational turnover intention.

Next, bootstrapping analyses were conducted to investigate the indirect effects of work motivation (autonomous and controlled) on turnover intention (occupational and organizational) through affective and continuance commitment (occupational and organizational). The results show significant indirect effects of autonomous motivation on occupational turnover through affective occupational commitment (estimate = -0.521 [95% CI = $-0.727, -0.315$]; $p < .001$), supporting hypothesis 9. Results also reveal significant indirect effects of autonomous motivation on organizational turnover intention through affective organizational commitment (estimate = -0.147 [95% CI = $-0.221, -0.074$]; $p < .001$), supporting hypothesis 11. However, the results revealed that the indirect links between controlled motivation and occupational/organizational turnover intention through continuance occupational commitment were not significant. These results do not support hypotheses 10 and 12.

Complementary Analyses

As mentioned, because commitment forms and targets can combine and be experienced in different ways (Meyer & Herscovitch, 2001; Meyer et al., 2015), we explored interactions among these variables. A total of

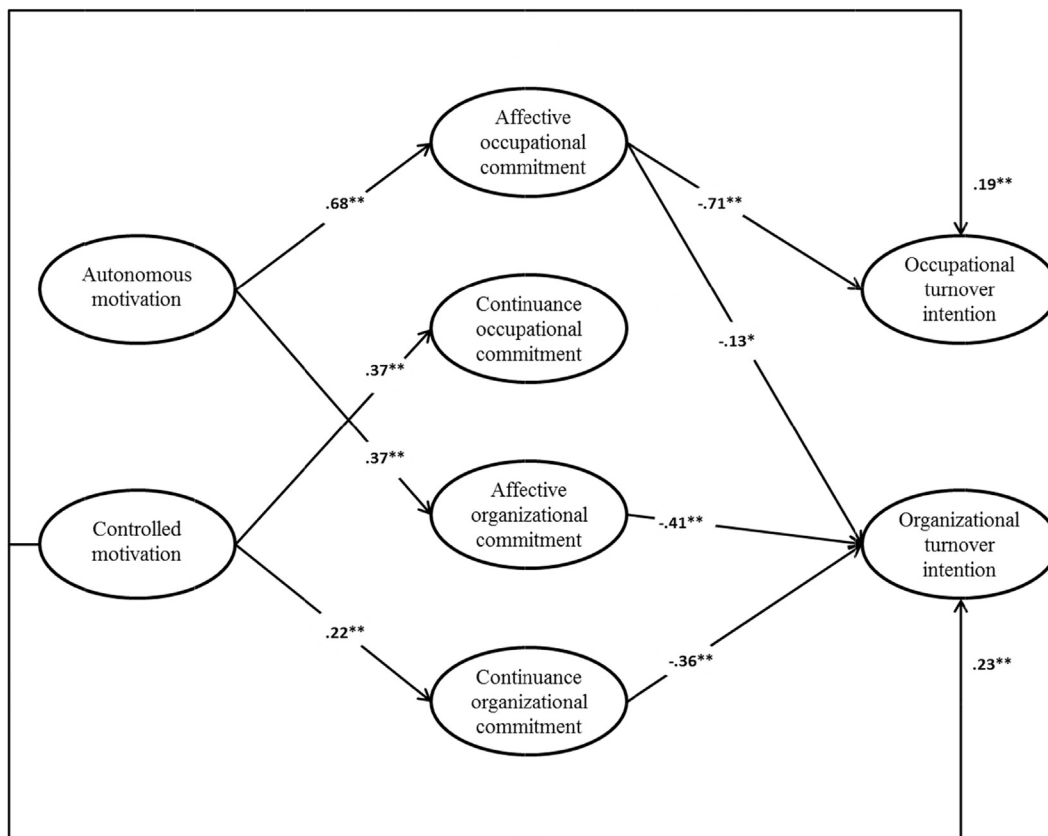


Figure 2 – Final model. * $p \leq .05$; ** $p < .01$.

six two-way interaction effects were tested for each outcome (occupational and organizational turnover intention). The results revealed one significant interaction effect: occupational continuance commitment moderated the relationship between occupational affective commitment and occupational turnover intention ($\Delta F(3, 468) = 4.22$; $p = .04$). Thus, the affective occupational commitment–occupational turnover intention relationship was stronger in the presence of low compared with high continuance occupational commitment ($\beta = -0.633$ vs. $\beta = -0.488$, respectively).

Discussion

This study aimed to deepen our understanding of the motivational factors involved in the turnover intention of newly registered nurses. The results make a unique contribution to the research by revealing different commitment pathways through which autonomous and controlled motivation simultaneously act on occupational and organizational turnover intention.

The main contribution of this study is the identification of the forms of motivation that can simultaneously affect intention to quit the occupation and organization at career start. Work motivation implies various reasons for nurses to engage in their work,

which lead to distinct psychological experiences. The more autonomous their motivation—engaging in the work for the inherent pleasure and satisfaction or to achieve professional goals that are considered important—the more nurses are affectively committed to their occupation or the organization. This results in lower intention to quit the occupation or the organization. On the other hand, the more controlled the motivation—engaging in the work under internal or external pressures—the stronger the intention to quit the occupation or the organization. Although controlled motivation was positively associated with continuance commitment to the occupation and organization, this form of commitment did not explain the relationships between controlled motivation and intention to quit the occupation or the organization. It appears that the perceived costs associated with nurses' particular commitment to the occupation or the organization could constitute a correlate of controlled motivation without necessarily capturing all the sources of internal pressure (shame and guilt) or external pressure (social appraisal) that could explain turnover intention. Other consequences of controlled motivation, such as negative affect and normative commitment (which reflects a sense of moral obligation to the occupation or organization) could be integrated into the model to enrich the understanding of the processes linking controlled motivation to turnover intention.

Although allowing a stronger grasp of the underlying reasons for turnover intention, our results highlight how the various forms of commitment can act as mobilizers, which further explains how the quality of motivation is associated with intention to quit the occupation or the organization. The research on nursing has identified commitment as a significant correlate of turnover intention (see [Flinkman et al., 2010](#)), whereas our results add to the literature by revealing that commitment forms and targets play a complementary but relatively distinct role in the prediction of turnover intention in newly registered nurses. Occupational turnover intention would be explained chiefly by affective commitment to this target (occupation), and this relationship could be strengthened by weak continuance commitment. This suggests that continuance commitment is a boundary condition that allows determining when affective commitment prevents more (or less) occupational turnover intention. At the same time, organizational turnover intention would be explained by affective and continuance commitment to this target (the organization), and—albeit to a lesser extent—by affective commitment to the occupation. In theoretical terms, these results support the need to consider the specificity of commitment targets ([Meyer et al., 1993](#)), as intention to quit the occupation or the organization arise mainly from their corresponding commitment targets. However, the relationship observed between the affective dimension of occupational commitment and organizational turnover intention suggests the relevance of considering a potential crossover effect, which future longitudinal studies could investigate. Strong affective occupational commitment could minimize the intention to quit a specific health care organization, given that the occupation is central to the nurse's identity, providing a meaningful experience that can outweigh the work demands of a particular organization ([Lee et al., 2000](#)). Thus, it is possible that, over time, affective occupational commitment translates into greater affective commitment toward the organization.

Furthermore, it is noteworthy that despite some correspondence between the commitment targets and turnover intention, the quality of work motivation can simultaneously fuel different commitment targets. These results contribute to commitment theory ([Meyer et al., 1993](#); [Meyer, Becker, & Vandenberghe, 2004](#); [Meyer & Herscovitch, 2001](#)) by identifying autonomous and controlled motivation as common theoretical antecedents of distinct commitment targets. To date, a few studies have linked motivation forms to organizational commitment ([Gagné et al., 2008](#); [Meyer et al., 2012](#)) or occupational commitment ([Fernet et al., 2012](#)) but not simultaneously and without integrating different commitment targets. Our theoretical integration and empirical evidence therefore deepen this understanding by deciphering the distinct role of autonomous and controlled motivation as well as different forms and targets of commitment in the

prediction of occupational and organizational turnover intention.

Although the proposed model needs to be validated in further studies, it opens the way to the design of practical measures for preventing turnover intention in nurses at career start. Because intention to quit is considered a proxy for turnover ([Spector, 1991](#)), policymakers and health care managers are advised to pay particular attention to work motivation in nurses, especially when health care systems are shorthanded. Our results indicate that the reasons that drive nurses to engage in their work also have an impact on the quality of their commitment to the occupation and organization as well as their turnover intention. In hopes of encouraging retention in both the occupation and organizations, targeted measures should be put in place to strengthen autonomous motivation and reduce controlled motivation, particularly at the start of the nursing career.

To facilitate high-quality motivation, it would be instructive for policymakers to revisit aspects of the nursing profession, including the regulatory environment. Indeed, a recent systematic review of the impact of state nurses practitioners' scope-of-practice regulations on health care delivery suggests that a more autonomous practice environment could be an effective strategy to increase primary care capacity, improve care utilization, and potentially reduce costs ([Xue, Ye, Brewer, & Spetz, 2016](#)). For health care organizations, a promising direction would be the development and promotion of leadership practices for head nurses and managers, with emphasis on people and relationships ([Cowden, Cummings, & Profetto-McGrath, 2011](#); [Cummings et al., 2010](#); [Gilmartin & D'Aunno, 2007](#)). These practices are embodied in transformational leadership, among others, which involves motivating others to do more than they originally intended and often even more than they thought possible ([Avolio, 1999](#)). Transformational leadership behaviors have been associated with adaptive outcomes in nurses, including job satisfaction, organizational commitment, and staff retention ([Cummings et al., 2010](#)).

Limitations

This study has several limitations. First, the use of a cross-sectional design does not allow accurately determining causal relationships between the studied variables. Although some longitudinal studies provide support for certain links in the proposed model (e.g., [Fernet et al., 2012](#); [Gagné et al., 2008](#)), we cannot exclude the possibility of reciprocal or inverse relationships between certain variables. Second, because all the data were gathered by the same method, common variance bias could have influenced the results by strengthening or weakening the correlations. Nevertheless, the observed moderating effect limits this possibility, as the interaction effects are robust against common method variance ([Evans, 1985](#)). Third, this study focuses on motivational factors without

considering the contribution of environmental job factors as antecedents of turnover intention. Future studies could pay particular attention to various workplace aspects, such as leadership, social support, job design, and socialization tactics that have been associated with turnover intention (Hayes et al., 2012). Fourth, the sampling procedure did not allow determining a definitive response rate. Despite the relatively low response rate, the sample was fairly representative of the overall membership of the nursing association. Nevertheless, the results should be interpreted with caution. Fifth, this study was based exclusively on a sample of nurses in the province of Québec, Canada. Our results should be replicated in other Canadian provinces and other countries.

Conclusion

This study aimed to deepen our understanding of the motivational factors involved in the turnover intention of newly registered nurses. The results indicate that the reasons that motivate nurses to perform their work act distinctly but complementarily on their intention to quit the occupation and organization through specific forms of commitment. Organizational efforts to strengthen autonomous over controlled motivation in newly hired nurses would constitute a promising strategy to retain nurses in health care systems and ensure workforce succession.

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