The Role of Perceived Development Opportunities on Affective Organizational

Commitment of Older and Younger Nurses

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Abstract: The research concerning human resource management (HRM) and organizational commitment is extensive. However, few studies have examined whether the relationship between employee perceptions of an organization's HR practices and work-related attitudes such as organizational commitment is moderated by age or career stage. This study examines the influence of perceived development opportunities and supervisory support on affective organizational commitment and whether this relationship is moderated by age or career stage. We collected the survey data from nurses in a Finnish university hospital (N = 937). The response rate was 54.4%. Our results show that the oldest nurses and those who had the longest organizational tenure were most affectively committed to the organization and had the highest rate of intention to remain at their current workplace. Affective organizational commitment was predicted by organizational tenure, skills that are appropriate for present work demands, supervisory support for development, and opportunities to use one's competencies. We detected no significant age-related interaction effects.

Keywords: Organizational commitment, HRM, retention, healthcare

Public healthcare organizations in many countries are struggling with the increasing needs of an ageing population compounded with financial challenges (Buchan et al. 2013). In addition, nursing staff are ageing, and many younger nurses are considering abandoning the profession (Flinkman et al. 2008; Buchan et al. 2013), In Finland, like in other Nordic countries, the total number of nurses is high. In 2015, Finland had more nurses (14.7) per capita (number of practicing nurses per 1000 population) than the OECD average (9.0), even though the number of doctors and health expenditure per capita were close to the OECD average. (OECD, Health at Glance 2017.) However, at that time, many Finnish nurses were due to retire shortly (Flinkman et al. 2008; Attree et al.

2011) and approximately 30% of Finnish nurses frequently consider changing their occupation (Flinkman et al. 2008).

Recent studies have stressed that retaining nurses is one of the best ways to solve the current nursing shortage (Armstrong-Stassen and Schlosser 2010; Attree et al. 2011). In practice, this means using the skills and competencies of the available nursing resources more effectively (Buchan et al. 2013). However, this requires age-sensitive HR practices to promote the retention of differently aged employees (Armstrong-Stassen and Schlosser 2010). In general, HRM scholars have paid more attention to age-related issues in recent years (Kooij et al. 2014). Some researchers have taken an employer-level perspective and analyzed current HR practices and the need for age-sensitive practices. Other studies have focused on employees' evaluations of HR practices in their organizations. (Kooij et al. 2014.) For example, recent studies have demonstrated that perceived development opportunities are positively related to employees' work-related attitudes such as affective organizational commitment, which in turn is positively related to nurses' intentions to remain in the organization (Armstrong-Stassen and Schlosser 2008) and negatively associated with their intention to leave the profession (Laine 2005; Flinkman et al. 2008).

As a result of these studies, a number of HR practices important for retaining older and younger employees have been identified. However, these studies have also been criticized for lacking a solid theoretical background in terms of HRM (Armstrong-Stassen and Schlosser 2010; Kooij et al. 2014). For example, the authors rarely explain the mechanisms by which HR practices influence the retention of different aged employees in detail (Armstrong-Stassen and Schlosser 2010). Some scholars have argued that HR practices may not directly influence employees' intentions to stay in or leave the organization; rather, these intentions are mediated by work-related attitudes, such as affective organizational commitment (Armstrong-Stassen and Schlosser 2010). There is also scant research concerning whether the relationship between perceived HR practices

and organizational commitment is moderated by age (Kooij et al. 2010) or career stage (Finegold et al. 2002; Conway 2004).

This study builds on HRM literature and views HR practices from an employee–level perspective. More specifically, we focus on the significance of perceived development opportunities and supervisory support for nurses' affective organizational commitment. We analyze whether this relationship is moderated by age or career stage. Opportunities for development and supervisory support have been identified as important factors for the retention of older (Lavoie-Tremblay et al. 2006) and younger nurses (Flinkman et al. 2008). We are interested in finding out whether perceived developmental opportunities and supervisory support significantly enhance the affective organizational commitment of nurses of all ages.

THEORETICAL BACKGROUND

Organizational commitment is a central work-related attitude, and its importance has been widely acknowledged in the field of HRM. Allen and Meyer (1996, 252) have defined organizational commitment as "*a psychological link between the employee and his or her organization that makes it less likely that the employee will voluntarily leave the organization.*" Some researchers have seen organizational commitment as a unidimensional concept such as Mowday et al. (1979). However, Meyer and Allen (1991) have defined organizational commitment as a multidimensional construct consisting of *affective*, *normative,* and *continuance* components. Affective commitment refers to emotional fondness towards the organization, normative commitment relates to the feeling of obligation, and continuance commitment denotes awareness of the costs related to leaving the current workplace (Meyer and Allen 1991, 67; Conway 2004, 419).

A meta-analysis by Mathieu and Zajac (1990) has demonstrated that organizational commitment increases with age and organizational tenure. Conway (2004) has argued that those

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who work longer in an organization internalize the organizations values' more thoroughly. On the other hand, family responsibilities may influence how easily older employees are able to leave the organization (Finegold et al. 2002). There is also evidence that better educated employees tend to be less committed to the organization (Mathieau and Zajac 1990; Swailes 2002).

As a concept, organizational commitment and especially affective commitment is closely related to work engagement. They are both seen to influence employees' job performance and retention (Chalofsky and Krishna 2009, 190). While organizational commitment relates to employees' attitudinal responses towards workplace, work engagement captures employees' energetic, dedicated and enthusiastic way to focus on work (Hallberg & Schaufeli 2006). In other words, work engagement describes employees' "optimal functioning" and it has been studied more in the context of health issues, whereas organizational commitment has been examined in the context of retention (Hallberg & Schaufeli 2006, 120-121). Chalofsky and Krishna (2009) have argued that, in the current working life, committed and engaged employees are needed for effective performance of organizations.

High-commitment HRM literature stresses that HR practices can be used to retain employees in the organization (Conway 2004). This literature relies on both the configurational and best practice perspective. The former emphasizes the identification and implementation of "bundles" of HR practices to improve organizational performance and employees' work-related attitudes. The latter stresses that certain universal HR practices are beneficial for all kinds of organizations in general. Usually, these so-called high-commitment HR practices are divided into three categories: opportunities to participate, performance-based incentives, and the development of skills and competencies. (Conway 2004, 417-418.)

In this study, we focus on employees' opportunities to develop their skills and competencies, which have been identified as an important part of HRM in terms of retaining older employees (Walker 2005). We understand competencies as the balance between job demands and

an employee's ability do his or her job (Lehto and Järnefelt 2000). Recently, researchers have examined opportunities to develop ones competencies broadly, covering both opportunities for formal training as well as opportunities for informal learning (van der Heijden et al. 2016) and opportunities for career development are seen to include both vertical and lateral job movements (Armstrong-Stassen 2008). Studies of the retention of older employees have also stressed that for professional competence development, older employees need encouragement and support from their supervisor (Ilmarinen 2006; Armstrong-Stassen and Schlosser 2010). Supervisory support may include, for example, giving feedback, providing career guidance, providing challenging work tasks, and opportunities for development (van der Heijden 2003; van der Heijden et al. 2010). For example, Armstrong-Stassen and Schlosser (2010) have demonstrated that affective organizational commitment mediated the relationship between older nurses' perceived organizational support and their intentions to continue working in their current workplace.

Some HRM scholars have stressed that the significance of an organization's training and development practices should not only be seen as improving employees' competencies, but also as influencing their work-related attitudes (Bartlett 2001). The notion that high commitment HR practices are related to work-related attitudes such as organizational commitment, through employees' perceptions of them, is rooted in social exchange theory (Bartlett 2001; Kooij et al. 2010; 2014). According to this theory, HR practices demonstrate to employees that the organization values their work, and employees respond to this by showing stronger commitment to the organization (Armstrong-Stassen 2008; Armstrong-Stassen and Schlosser 2010). In other words, employees may perceive the development opportunities provided by the organization as rewards (De Gieter et al. 2012). However, social exchange theory suggests that the value of HR practices may differ among employees, according to age or career stage, for example (Kooij et al. 2010; Finegold et al. 2002).

Traditional career stage models suggest that employees pass through different phases during their working career, which can influence their work-related needs and expectations (Finegold et al. 2002). For example, Super (1957) has identified four career stages and defined them as *exploration*, *establishment*, *maintenance*, and *disengagement*. Exploration means finding one's own place at work (Finegold et al. 2002). For example, there is evidence that nurses who have are in the exploration stage more often consider leaving their profession (Flinkman et al. 2008, 2010). Establishment includes stabilization and growth, in the form of extending one's professional role in the organization, for example (Finegold et al. 2002). During the maintenance stage, employees often focus on retaining interest in their current job, and they use their own resources more efficiently in terms of work experience. During the disengagement stage, mentoring roles, providing guidance to younger colleagues, and gradual withdrawal from working life are important factors. (Finegold et al. 2002; Conway 2004.)

Only few HRM studies have paid attention to the question of whether the relationship between perceived HR practices and work-related attitudes is moderated by age (Finegold et al. 2002; Kooij et al. 2010) or career stage (Conway 2004). Kooij et al. (2010, 1128), in their meta-analysis of 83 studies, demonstrated that employee perceptions of HR practices were positively related to work-related attitudes, and that this relationship was moderated by chronological age. In their study, they distinguished between maintenance and development HR practices. Maintenance HR practices involve, for example, job security, rewards and benefits, information sharing, working in teams and flexible work schemes. Development HR practices relate to training and development, internal promotion, career progress and job enrichment. Relying on the lifespan theory of selection, optimization, and compensation (SOC), which assumes that as they age, people try simultaneously to maximize the gains and minimize the losses brought by ageing, Kooij and her colleagues expected that the associations between development HR practices and affective organizational commitment would weaken as employees grew older. This hypothesis was supported for the

association between promotion and affective organizational commitment. (Kooij et al. 2010.) Conway's (2004) study in the Irish financial sector demonstrated that the relationship between perceived career development opportunities and normative organizational commitment was strongest among those employees who were in the early stage of their career. Similarly, Finegold et al. (2002) demonstrated that satisfaction with opportunities to develop competencies had a stronger negative relationship with turnover intentions in technical workers under 30 than those over 45. However, the interaction effects were rather small (Finegold et al. 2002).

Many recent HRM studies have questioned the significance of so-called "universal" HR practices at individual level, and have argued that the significance of different HR practices for the retention of employees may vary according to individual differences, such as age or career stage (Conway 2004; Kooij et al. 2014). Previous studies (Finegold et al. 2002; Conway 2004; Kooij et al. 2010) suggest that younger employees may value the development opportunities provided by their organization more than older employees. This is because younger employees are at a stage where they need to develop their organization-specific competencies (Finegold et al. 2002). However, career development opportunities can be greater during the mid-career stage, when the focus is on career establishment (Conway 2004; Finegold et al. 2002). On the other hand, Hall and Mirvis (1996) have argued that traditional organizational careers are becoming rarer and are being replaced by so-called "protean careers", which include continuous learning during the whole career (Finegold et al. 2002). This indicates that development opportunities and especially opportunities to develop and use one's professional competencies will be crucial for both older and younger employees.

In this study, we distinguish between older and younger employees chronologically. We adopt the age of 45 as a starting point when referring to older employees, which is in accordance with earlier studies (Brough et al. 2011; Ilmarinen 2006). This criterion is based on the notion that this is often the time when employees' work ability and career aspirations begin to

change significantly, although individual differences are great (Ilmarinen 2006; Byens et al. 2009). In this study, we use organizational tenure to indicate career stage, divided into four categories: less than two years, between two and 10 years, 11–20 years, and over 20 years; this roughly resembles the career stages presented by Super (1957).

This study has two objectives. The first is to examine age-related differences in terms of intention to remain at the current workplace and affective organizational commitment. The second is to explore the relationship between perceived HR practices and affective organizational commitment, and to analyze whether this relationship is moderated by age or career stage.

RESEARCH PROCESS

Procedure and participants

We gathered the research data between December 2006 and January 2007 from registered nurses and nursing personnel working in a public university hospital in Finland. The hospital's ethical committee gave their permission for the study. The nurses we studied were permanently or temporarily employed, and they worked in non-managerial positions in the surgical or psychiatric care wards at the hospital. We distributed 937 questionnaires via the hospital's internal post. Respondents received a personally addressed envelope containing a 12-page questionnaire and a return envelope. They also received one follow-up letter. In total, 510 questionnaires were returned. The response rate was 54.4%. No statistically significant differences were found between respondents and non-respondents in terms of demographic data, indicating that no systematic bias occurred among respondents. We present the background characteristics of the respondents in Table 1.

[INSERT TABLE 1 ABOUT HERE]

The mean age of the respondents was 41.5 years, within a range of 21 to 62 years. The majority of the respondents were female (83%) and over half of them (54%) had worked for over 10 years in the current organization. Most of the informants were registered nurses, and the rest were other nursing personnel. Of the respondents, 71% worked in the surgical wards and 29% worked in the psychiatric care wards. Most of the respondents (75%) were permanently employed.

Measures

Age was operationalized as calendar age. Organizational tenure was used to indicate career stage. Respondents were asked to state their tenure (years and months) in their current organization. We subsequently divided this variable into four categories: (1) less than 2 years, (2) between 2 and 10 years, (3) 11–20 years, (4) more than 20 years, based on the career stages presented by Super (1957).

Ability to do one's job was measured by asking respondents to indicate what they felt was their skills level. The response scale was: (1) "I need additional training in order to perform well in my current job"; (2) "my skills are appropriate for my current work demands"; (3) "I have the potential to carry out more challenging tasks" (Lehto and Järnefelt 2000).

We based our affective organizational commitment scale on Allen and Meyer's (1990) scale. It comprised a 5-point Likert scale, from (1) totally disagree to (5) totally agree, with higher scores indicating higher levels of organizational commitment. Affective organizational commitment was measured using eight items. These included, for example, "I would be very happy spending the rest of my career with this organization."

Intention to remain was examined using one item: "I will continue working here for as long as possible," which is almost identical to the item used by Armstrong-Stassen and Schlosser (2008). We used a five-point Likert scale, with higher scores indicating higher intent to remain (1 = totally disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, and 5 = totally agree). We then converted this scale into a three-point scale: disagree, neither agree nor disagree, and agree.

The scale used to assess perceived development opportunities consisted of 13 items, which we collected from earlier studies concerning perceived development opportunities for nurses (Armstrong-Stassen and Cameron 2005) and employees in different occupations (Lehto and Järnefelt 2000, Tikkanen et al. 2002, Tuomi and Vanhala 2002). We used a five-point response scale for the items, varying from (1) very poor to (5) very good. We conducted principal component analysis with Varimax-rotation to find the possible dimensions of perceived development opportunities (KMO value = 0. 834, Bartlett's test p<0.001). Two items did not load well, and they were dropped. Eleven items loaded on three factors: (1) opportunities for professional competence development, (2) opportunities to use one's competencies, and (3) opportunities for career progress (Table 2).

[INSERT TABLE 2 ABOUT HERE]

The items were developed from earlier studies because we did not find previously validated measures for perceived development opportunities. These eleven items explained 68.3% of the variance. The mean values for perceived opportunities to develop and use one's competencies were rather high. However, the mean values for perceived opportunities for career progress were low.

We developed the scale for perceived supervisory support for development using the items noted by Armstrong-Stassen and Cameron 2005; London 1993; Maurer and Tarulli 1994; Maurer et al. 2003; and van der Heijden 2003. We used a five-point Likert scale for these eight items, varying from (1) totally disagree to (5) totally agree. We conducted a principal component factor analysis with Varimax-rotation (KMO value = 0.889, Bartlett's test p<0.001). All items loaded on one factor, which we termed perceived supervisory support for development (Table 3).

[INSERT TABLE 3 ABOUT HERE]

Data analysis

We conducted statistical analyses using SPSS Statistics 20.0. We performed the χ2-test and one-way Anova to study possible age and career stage differences in the intentions to remain at the same place of work and in terms of affective organizational commitment. The test of variance homogeneity (Levene's test) showed that the variances were equal. We measured the bivariate correlations between studied variables using Spearman correlation. We performed hierarchical regression analysis (Stepwise) to determine the proportion of variance in the dependent variable (affective organizational commitment) predicted by the independent variables. In the regression analysis, we investigated interaction effects similarly to previous studies (Finegold et al. 2002; Conway 2004) and we controlled for educational level and gender. In addition, we assessed multicollinearity; it was not a problem in this study.

RESULTS

In total, 43% of the nurses surveyed agreed totally or partly with the statement "I will continue working here for as long as possible" (Table 4). However, almost half of the respondents under 35 (47%) disagreed with the statement totally or partly. There was a statistical difference between age groups and intention to remain at the current workplace ($\chi2$ = 22.923 df = 6, p = 0.001). Respondents in the oldest age group (over 54) had the strongest intentions to remain at their current workplace.

The relationship between organizational tenure categories and intention to remain in the current workplace was also statistically significant ($\chi2$ = 16.526, df = 6, p = 0.011), indicating that those who had the longest tenure were most intent on remaining in their current workplace. However, nurses in the establishment stage of their career (who had worked in the organization for between two and 10 years) were least intent on remaining in their current workplace.

[INSERT TABLE 4 ABOUT HERE]

There were statistically significant differences between age groups in the level of affective organizational commitment (F = 7.773, df = 3, p = 0.001) and organizational tenure (F = 9.508, df = 3, p = 0.001). The oldest nurses, and those with the longest organizational tenure, were most committed to the organization affectively (Table 5).

[INSERT TABLE 5 ABOUT HERE]

Table 6 provides descriptive statistics and Spearman correlations. All Cronbach's α-values were over 0.70, which can be considered satisfactory. Affective organizational commitment related positively and strongly with intention to remain in the current workplace (r = .512, p<0.01). The level of affective organizational commitment was moderate (mean = 2.988). In terms of personal

variables, age and organizational tenure correlated positively with affective organizational commitment, indicating that older nurses and those who had worked longer in the organization were more affectively committed to the organization than younger ones. Perceived development opportunities and supervisory support for development were positively and significantly related to affective organizational commitment.

[INSERT TABLE 6 ABOUT HERE]

We performed a hierarchical multiple regression analysis with the Stepwise method to examine the antecedents of affective organizational commitment. We entered personal variables (age, organizational tenure, education, gender, ability to do one's job) in the first block. We then entered opportunities to develop and use one's professional competencies, opportunities for career progress and supervisory support for development. We entered the interaction terms in the final block; we created these by multiplying perceived HR practices by age and by organizational tenure categories. In total, we used 16 interaction terms in the analysis. We present Standardized coefficients (β), the proportion of the variance explained (R^2), and adjusted R^2 for the model, in Table 7.

[INSERT TABLE 7 ABOUT HERE]

Table 7 shows that four variables predicted almost 25% of the variance in affective organizational commitment. Our results show that longer organizational tenure, appropriate skills for present work demands, positive perceptions of supervisory support for development, and opportunities to use one's competencies were positively related to affective organizational commitment. Perceived supervisory support for development predicted affective organizational commitment most strongly.

None of the interactions in terms of age or career stage reached significance in the regression model.

CONCLUSIONS

Recent studies have consistently stressed that for public health care organizations, one of the best ways to respond to the shortage of nurses is to retain and make greater use of their existing nurses (Armstrong-Stassen and Schlosser 2010; Estryn-Behar et al. 2010; Buchan et al. 2013). This requires age-sensitive HR practices to retain both older and younger nurses (Lavoie-Trembley et al. 2006). Based on the notion that perceived HR practices may not have a direct effect on employees' intentions to stay in or leave the organization, we focused in this study on the significance of perceived development opportunities and supervisory support for the affective organizational commitment of nurses. For example, Armstrong-Stassen and Schlosser (2010) have argued that HR practices can influence employees' withdrawal intentions indirectly rather than directly. In addition, we examined whether the relationship between perceived HR practices and affective organizational commitment differs according to age or career stage.

In line with previous studies, our results demonstrated that the oldest nurses and those who had worked longest for their current employer were most affectively committed to the organization (Mathieu & Zajac 1990; Laine 2005). Affective organizational commitment was positively associated with intentions to remain at the present organization, indicating that more affectively committed nurses are less likely to leave their employer. Based on social exchange theory, we expected positive associations between perceived HR practices and affective organizational commitment. Our results partly support this assumption. In the regression analysis, affective organizational commitment was predicted by organizational tenure, appropriate skills for

current job demands, supervisory support for development, and opportunities to use one's competencies.

These results support previous age management studies that stress the importance of a balance between individual-level competencies and job demands (Walker 2005; Ilmarinen 2006). For example, Estryn-Behar et al. (2010) found that nurses' dissatisfaction with the use of their competencies and lack of autonomy were significant reasons for leaving their profession. Whereas, the study of Laine et al. (2011) showed that the work content and workplace atmosphere were the most significant factors related to Finnish nurses' organizational commitment. The results of our study also lend support to previous studies that emphasize the importance of social support, especially quality of leadership, in the retention of nurses (van der Heijden et al. 2009; Armstrong-Stassen and Schlosser 2010). For example, Bartlett's (2001) study demonstrated that perceived supervisory support for training had a positive association with nurses' affective organizational commitment.

In our study, perceived opportunities to develop one's competencies and opportunities for career progress had a non-significant effect on affective organizational commitment in the regression model. The significance of competence development opportunities for nurses' affective organizational commitment might be reduced because nurses may perceive training and development opportunities provided by the organization as standard job conditions (De Gieter et al. 2012). In general, Finnish nurses have rather limited promotion opportunities (Laine et al. 2010). For that reason, opportunities for career progress may not be important for their affective organizational commitment. In addition, due to the emotionally and physically demanding nature of the nursing profession (van der Heijden et al. 2009), we might assume that interpersonal relations at work, such as supervisory support, are more important for nurses' affective organizational commitment than formal training opportunities, for example.

Contrary to earlier studies (Finegold et al. 2002; Conway 2004; Kooij et al. 2010), we detected no statistically significant age or career-stage interaction effects. This result indicates that there are more similarities than differences between older and younger nurses in terms of the importance of perceived development opportunities and supervisory support. As the study by Finegold et al. (2002) suggests, researchers might pay too much attention to differences between age groups or career stages. Our finding also supports the notion of protean career (Hall & Mirvis 1996), implying that possibilities to fully use one's professional competencies are crucial for both older and younger nurses.

Implications for practice

This study provides empirical evidence of a strong positive relationship between affective organizational commitment and intention to remain in the current workplace. Therefore, it can be assumed that nurses' perceptions of HR practices can indirectly influence their intention to stay with their organization via affective organizational commitment. The results show that opportunities to fully use one's professional competencies can be used as a way of enhancing both older and younger nurses' affective commitment to the organization. These opportunities include using professional competencies gained through training or work experiences and the ability to influence and develop one's working methods. In addition, supervisors can enhance the affective organizational commitment of both older and younger nurses by supporting and encouraging their development. Together these practices may help to retain nursing staff. Primarily, opportunities to use one's competencies are important for two reasons. First, they are important for maintaining and developing employees' professional competencies and abilities. Second, they can be used to strengthen nurses' affective commitment towards their organization.

Limitations and suggestions for future research

While our study offers some insights into the relationship between perceived HR practices and affective organizational commitment, it was restricted to a female dominated profession and to a Finnish university hospital. Therefore, caution is required with regard to generalizing the results. Second, the cross-sectional nature of the study made it impossible to verify the causality of the variables studied. Based on social exchange theory, we assumed that HR practices perceived as good could enhance nurses' affective commitment to the organization. However, the opposite causality is also possible. A longitudinal research design is needed to confirm the causes of the relationships.

The use of a single item for measuring intention to remain in the current workplace may have reduced the reliability of this instrument. It should be also noted that we studied nurses' perceptions of development opportunities and supervisory support, which may not reflect actual practice in the hospital. However, it is likely that subjective perceptions of HR practices are linked to individuals' work-related attitudes, such as organizational commitment (Armstrong-Stassen 2008). A further point is that the data were self-reported and from a single questionnaire, making this study vulnerable to common-method bias (Podsakoff et al. 2003).

Future studies could investigate the effect of other HR practices on the work-related attitudes of employees of different ages. A configurational approach to HRM assumes that bundles of HR practices may have stronger effects on employees' work-related attitudes than individual HR practices (Armstrong-Stassen and Schlosser 2010; Kooij et al. 2010; 2014). For example, perceptions of HR practices aiming to improve the work-life balance could be significant for the retention of nurses. Finally, the use of different outcome variables, such as work engagement could be an important avenue for future research.

NOTES AND ACKNOWLEDGEMENTS

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TABLE 1 The background characteristics of the respondents % (n)

Age, mean ± SD	41.5 ± 9.7
Age groups, % (n)	
Under 35	29 (146)
35–44	30 (153)
45–54	30 (155)
Over 54	11 (56)
Organizational tenure, % (n)	
under 2 years	8 (40)
2-10 years	37 (190)
10-20 years	36 (180)
over 20 years	19 (93)
Gender,% (n)	
Women	83 (423)
Men	17 (87)
Education,% (n)	
College level or lower	69 (346)
Bachelors' degree or upper	31 (158)
Profession,% (n)	
Registered nurses	82 (415)
Other nursing personnel	18 (95)
Form of employment,% (n)	
Permanent	75 (384)
Temporary	25 (120)
Working time,% (n)	

Shift work	74 (375)
Day work	26 (133)
Pay €/month, mean ± SD	2145 ± 332
Division of care,% (n)	
Operative	71 (363)
Psychiatric	29 (147)

TABLE 2 Factor loading structure for perceived development opportunities

Rotated component matrix	1	2	3
Opportunity to receive training that promotes professional competencies	0.828		
Opportunity to participate during working time in training provided by the employer	0.796		
Opportunity to develop one's professional competencies	0.869		
Opportunity to learn new things	0.738		
Opportunity to get guidance related to the work	0.676		
Opportunity to use knowledge and skills gained through professional training		0.663	
Opportunity to use knowledge and skills gained through work experience		0.819	
Opportunity to choose own working methods and develop these		0.746	
Opportunity for career progress			0.782
Opportunity to move from work assignment to another work task that is at the same level			0.707
Opportunity to progress to more challenging work tasks			0.872

TABLE 3 Factor loading structure for perceived supervisory support for development

Rotated component matrix	
My supervisor tells me about the available opportunities for professional competence development	0.754
Supervisor encourages me to participate in training and development activities in the workplace	0.863
Supervisor supports me in learning new things	0.857
Supervisor discusses my development goals with me regularly	0.726
Supervisor rewards me based on my development	0.690
Supervisor plans my work so that I have an opportunity to develop within it	0.751
Supervisor treats me with fairly in terms of training and development matters	0.819
Supervisor provides equal development opportunities for all employees	0.793

TABLE 4 Age-related differences in terms of intention to remain in the workplace

	Disagree	Neither agree nor disagree	Agree
	% (n)	% (n)	% (n)
Age group			
Under 35	47% (68)	20% (28)	33% (47)
35–44	35% (53)	25% (37)	40% (60)
45–54	25% (38)	26% (40)	49% (76)
Over 54	31% (17)	13% (7)	56% (31)
Totally	35% (176)	22% (112)	43% (209)
Organizational tenure			
Under 2 years	38% (15)	18% (7)	44% (17)
2–10 years	42% (78)	27% (50)	31% (58)
11-20 years	32% (57)	20% (36)	48% (86)
Over 20 years	28% (25)	20% (18)	52% (48)
Total	35% (175)	22% (111)	43% (209)

TABLE 5 Age-related differences in terms of affective organizational commitment

Age group	Mean	SD	F-test	df	sig
Under 35	2.824	0.722			
35–44	2.945	0.799			
45–54	3.042	0.788			
Over 54	3.396	0.697	7.773	3	0.001
Organizational tenure	**Mean**	**SD**	**F-test**	**df**	**sig**
Under 2 years	2.760	0.756			
2–10 years	2.825	0.723			
10-20 years	3.019	0.824			
over 20 years	3.314	0.688	9.508	3	0.001

TABLE 6 Means, standard deviations, reliability estimates and bivariate correlations

Variables	Mean	SD	α	1	2	3	4	5	6	7	8	9
1 Intention to remain	3.06	1.260										
2 Affective organisational commitment	2.988	0.779	0.829	.512** (n = 494)								
3 Age	41.52	9.739		.190** (n = 502)	.193** (n = 496)							
4 Organisational tenure	12.74	9.011		.143** (n = 495)	.209** (n = 489)	.719** (n = 503)						
5 Opportunities for develop one's professional competencies	3.718	0.647	0.871	.168** (n = 495)	.299** (n = 490)	-.022 (n = 500)	-.070 (n = 493)					
6 Opportunities for use one's professional competencies	3.878	0.623	0.742	.146** (n = 497)	.275** (n = 492)	-.058 (n = 502)	-.022 (n = 495)	.441** (n = 497)				
7 Opportunities for career progress	2.706	0.819	0.775	.153** (n = 496)	.227** (n = 491)	-.194** (n = 501)	-.143** (n = 494)	.387** (n = 496)	.326** (n = 499)			
8 Supervisory support for development	3.146	0.855	0.908	.204** (n = 489)	.394** (n = 487)	.074 (n = 494)	.036 (n = 487)	.551** (n = 488)	.405** (n = 490)	,415** (n = 489)		
9 Competence at doing one's job	2.08	0.713		-.118** (n = 501)	-.079 (n = 495)	.011 (n = 508)	.114* (n = 501)	-.030 (n = 499)	-.011 (n = 501)	-.079 (n = 500)	-.142** (n = 493)	

* p<.05, **p<.01.

TABLE 7 Hierarchical regression (Stepwise) of affective organizational commitment

Variables	Affective organizational commitment (Standardized beta coefficient)
Organizational tenure	.211***
Skills in balance with present work demands	.102*
Perceived supervisory support for development	.325***
Perceived opportunities to use one's competencies	.149**
N	456
R^2	.241
Adjusted R^2	.234
F-test	36.159***
df	4
Standard error of estimate	.682
Durbin-Watson	1.928

$p<0.05$*, $p<0.01$**, $p<0.001$***