

Why do nurses intend to leave their organization? A large scale analysis in long term care

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ABSTRACT

Aim.

To analyze the impact of six job characteristics on the intention of nurses to leave their organization, specifically focusing on long term care settings: nursing homes, care homes and home care.

Background.

When nurses leave their organization, this can negatively affect organizational performance. Organizations have to recruit new nurses and tacit knowledge is lost. Furthermore, organizational turnover could contribute to the nursing shortage, which will increasingly become a problem given the aging population. This article adds to the literature, given a) its focus on long term care and b) by explicating the differences between nursing and care homes (intramural) on the one hand and home care (extramural) on the other.

Design.

Survey

Method.

Survey of 9,982 nurses in 156 Dutch organizations in 2010-2011, 6,321 nurses in nursing and care homes and 3,661 nurses working in home care, based on the *ActiZ Benchmark in Healthcare*.

Results.

Firstly, the most important reason for nurses' intention to leave is insufficient development and career opportunities. Secondly, a negative working atmosphere strongly influenced intention to leave. The impact of the working atmosphere is not often examined in the literature. However, this research shows that it is an important reason. Thirdly, intention to leave is partly context dependent. More specifically, when nurses in home care felt that their autonomy was reduced, this strongly influenced their intention to leave, while this was not the case for nurses working in nursing and care homes.

Conclusion.

This article provides guidelines for organizations on how to retain their nurses.

SUMMARY STATEMENT

Why is this research or review needed?

- Nurses' intention to leave the organization is expected to seriously impact organizational performance and may lead to a higher nursing shortage.
- The state of the art of studies on organizational turnover of nurses focuses on acute care settings. However, long term care settings are of increasing importance in an aging society.
- Job characteristics have proven to be important predictors of nurses' intention to leave the organization, but their impact has not been examined yet for nurses in long term care.

What are the three key findings?

- The most important reason why nurses in long term care are inclined to leave their organization is insufficient development and career opportunities.
- Although not often mentioned in the literature, the impact of a pleasant working atmosphere on intention to leave the organization proved to be strong.
- The effects of job characteristics on intention to leave are context dependent: for nurses in extramural care (homecare) the effect of autonomy is stronger than for nurses in intramural care (nursing and care homes).

How should the findings be used to influence policy/practice/research/education?

- We recommend healthcare managers, HR managers and researchers to explore development opportunities for the nurses in their organization.
- HR and line managers should ensure a good working atmosphere in their organization by paying attention to appreciation for each other's work, no bullying in the workplace and good relationships with colleagues.
- Especially home care organizations should think of interventions which ensure the perceived autonomy of nurses.

Keywords: Nurses, intention to leave the organization, turnover, leadership, quality of work, autonomy, long term care, nursing homes, care homes, home care

INTRODUCTION

This article analyzes the intention of nurses to leave their organization, and the reasons why they do so. When nurses leave their organization, this is an important event. Nurses will possibly have to find another organization to work for, will need to adapt to their new situation and maybe move house. For organizations, it can involve substantial costs, such as fees for recruiting and hiring new nurses, the loss of tacit knowledge, and continuity problems (Larrabee et al., 2003; Zimmerman et al., 2008). Furthermore, it has been shown that when nurses leave their organizations, this negatively influences health outcomes for patients, for instance because it increases the number of inexperienced nurses and causes psychological distress for residents (Aiken et al., 2002; Castle & Engberg, 2005; Knapp & Missiakoulis, 1983). Furthermore, turnover at the organizational level is a major contributor of the nursing shortage (Borda & Norman, 1997), which will increasingly become a problem given the increased demands of the healthcare system by an aging population. In sum, it is of paramount importance that we understand the reasons nurses leave their organization.

This article focuses on the intention to leave of nurses in long term care, consisting of intramural care (care delivered inside an organization, such as nursing and care homes) and extramural care (home care). We chose for this focus given that recently Buchan (2012:2) – in an editorial of the *Journal of Advanced Nursing* - noted that there seems to be a bias in the literature towards acute care (see also Hayes et al., 2011:894). A limited number of studies focus specifically on the intention of nurses to their organization in long term care (examples are Castle et al., 2007; Jinnett & Alexander, 1999; Karantzas et al., 2012; Karsh et al., 2005). However, these studies do not explicitly distinguish between intramural care and extramural long term care. Distinguishing between care settings could be important, however, as these could influence the reasons why nurses leave their organization. For instance, a reduction in autonomy could be more important in extramural (home care) settings, given that nurses may choose this setting expecting that they can work relatively independently (Nevidjon & Erickson, 2001).

This article uses a large sample of 9,982 nurses from 156 Dutch organizations: 6,321 working in intramural care and 3,661 working in extramural care. The 156 organizations form approximately 33% of all organizations providing long term care (homecare, nursing and care homes) in the Netherlands (RIVM, 2012). By using a large scale sample and focusing on the differences between intramural and extramural long term care, we aim to contribute to the insights into which factors affect nurses' intention to leave their organizations. The sample is based on the nationwide *Benchmark in Healthcare* ('Benchmark in de Zorg'), set up by ActiZ, the main Dutch trade organization of among else homecare, nursing and care homes (see also Method Section). This brings us to the following research question:

What are the main reasons why nurses in intramural (nursing and care homes) and extramural (home care) long term care leave their organizations?

The next section identifies possible reasons why nurses in long term care intend to leave their organization, based on a literature review. Here, we will also analyze potential differences between intramural and extramural long term care settings. Next, we will describe the method and approach for conducting the survey, as well as its results. We will conclude by discussing the contribution of this article to the understanding of nursing turnover at the organizational level, and highlight recommendations for employers and managers in nursing homes, care homes and home care.

BACKGROUND

Scholars have found that intention to leave one's organization is one of the best proxies for actual turnover (Alexander et al., 1998; Bluedorn, 1982). Furthermore, Krausz et al. (2006:285) showed that mild forms of turnover of nurses – such as leaving the ward and leaving the organization – preceded more severe manifestations, such as the intention to withdraw from the nursing profession altogether (for studies on leaving the nursing profession, see for instance Shacklock & Brunetto, 2011; Shields & Ward, 2001).

For identifying the reasons why nurses leave their organization, we rely on a number of meta-analyses on intention to turnover, as well as actual turnover. These studies are not focused exclusively on intention to leave the organization. However, these are valuable as they are highly related to it. Based on a systematic search of the literature on nursing turnover, Coomber and Barriball (2007) conclude that four job characteristics are most often noted in the literature: 1) leadership, 2) development opportunities (educational attainment), 3) stress and 4) pay. While the meta-analysis of Coomber and Barriball (2007) is restricted to hospital-based nurses, a meta-analysis by Hayes et al. (2006) includes both acute care and long term care settings. They find comparable results, namely management style (compare nr. 1, leadership), development opportunities (nr. 2) and work pressure (compare nr. 3, stress). Next to this, they find a strong influence of autonomy/empowerment and work schedules on intention to leave. Hayes et al. recently published an update of their meta-analysis (2011). They continue to highlight the same factors, such as management style, workload, and empowerment. Furthermore, they also stress the impact of generational factors.

Based on the meta-analyses, we will examine to what extent intention to leave is affected by work pressure (Coomber & Barriball, 2007; Hayes et al., 2006; Hayes et al.,

2011), leadership issues (Coomber & Barriball, 2007; Hayes et al., 2006; Hayes et al., 2011), development and career opportunities (Coomber & Barriball, 2007; Hayes et al., 2006; Hayes et al., 2011) and autonomy (Hayes et al., 2006; Hayes et al., 2011). Pay is excluded from the analyses, since the meta-analyses show inconclusive findings (Coomber & Barriball, 2007). Furthermore, whereas pay could affect the intention to leave the profession, it is expected to influence nurses' intention to leave the organization less strongly, as pay levels of nurses are standardized within the Dutch health care sector (in collective labor agreements) and do not differ between organizations (all health care organizations are public).

Next to these four job characteristics, which are often mentioned in several meta-analyses, we will analyze two other job characteristics: working atmosphere and organizational vision. These factors turned out to be important in explaining intention to leave of nurses and other healthcare workers in recent studies. Working atmosphere is found to be an important influencing factor in the studies by Gardulf et al. (2005) and Tzeng (2002). Next to this, Hwang and Chang (2006) and Kukkurainen et al. (2011) showed that identification with organizational vision affects turnover intentions of healthcare workers.

Organizations can try to improve these six job characteristics, thereby improving quality of work and possibly diminishing intention to leave (see also Coomber & Barriball, 2007:244). Furthermore, important individual characteristics – such as age and gender – are taken into account. However, we should note that turnover in general is not only due to job or individual characteristics. Other factors, such as the chances of finding a new job on the external labor market, which is among else dependent on the economic situation, are also important (Brewer et al., 2009; Wheeler et al., 2007).

We will develop hypotheses on the possible impact of the six job characteristics on intention to leave the organization of nurses in long term care. First, considering work pressure and following the findings in the meta-analyses, we expect that when nurses experience more work pressure, this increases their intention to leave their organization. Karsh et al. (2005) found evidence for this hypothesis for nurses working in long term care. They analyzed 76 nursing homes in the United States. Using logistic regression, they showed that nurses who intended to stay in their job ('stayers') experienced significantly less work pressure than people who were considering leaving their job ('leavers'). They concluded that work pressure indeed affected nursing turnover in the organization. However, the relatively low Cronbach's alpha of the measurement of work pressure (.51), and the use of a single item to measure intention to leave indicates that we should be somewhat cautious in interpreting these results. Second, much research has shown that the perceived quality of leadership has a major impact on the intention to leave the organization (Larrabee et al., 2003; Yin & Yang, 2002).

Next to work pressure and leadership, the meta-analyses indicate that experienced autonomy – or empowerment – of nurses could seriously decrease turnover intentions. Similarly, studying registered nurses in hospitals, Larrabee et al. (2003:272) note that “Nurses are more likely to stay in their work setting when they view themselves to have control of their practice [and] adequate autonomy”. We expect that for nurses in long term care, more autonomy also decreases their intention to leave the organization.

In the literature on the quality of work, development and career opportunities are often mentioned as factors affecting work outcomes such as job satisfaction and intention to leave. When an organization provides nurses with opportunities to develop themselves, this will decrease their intention to leave their organization (Coomber & Barriball, 2007). In a study of a university hospital, Gardulf et al. (2005) investigated the reasons why nurses seek for another job. 19% of respondents who thought about quitting provided limited career opportunities as the main reason. Based on this, we expect that development and career opportunities are also negatively related to intention to leave their organization for nurses in long term care settings.

The fifth possible factor affecting intention to leave is the working atmosphere. A ‘good’ working atmosphere is characterized by a pleasant interaction with colleagues working in the same unit, a good team spirit and collegial behavior (Tzeng, 2002). Based on the study of Tzeng (2002), we expect that when nurses in long term care experience an unpleasant working atmosphere, this will increase their intention to leave their organization.

Lastly, we analyze the impact of an inspiring organizational vision on the intention to leave. Research indicates that a clear vision and an inspiring perspective on the future of the organization attracts employees to the organization (Baum et al., 1998; Kantabutra & Avery, 2007; Larwood et al., 1995; Liu, 2006). Oswald et al. (2006:477), based on a study of 226 managers, concluded that “With regard to managers’ psychological attachment to the organization, the results suggest that there are advantages afforded by involving them in the strategy making process, and that these advantages are magnified to the extent that the involvement occurs within the context of a salient strategic vision”. Although it is acknowledged that an inspiring organizational vision could be of importance, to our knowledge the specific impact of organizational vision on intention to leave of nurses has not yet been analyzed. However, Hwang and Chang (2006:134) did show that identification with hospital vision decreases turnover intentions of physicians. Furthermore, in a study of Finnish healthcare workers, Kukkurainen et al. (2011) showed that an inspiring vision was related to motivation and satisfaction. Based on this, we expect that when nurses feel that the vision of their organization is inspiring and motivating, this will decrease their intention to leave.

Next to the direct effect of the six job characteristics on intention of nurses to leave their organization, we also expect that the impact of these job characteristics is dependent on the care setting (intramural versus extramural). In particular, we expect the impact of autonomy and working atmosphere to be dependent on the care setting.

We expect that the impact of autonomy is especially important in extramural care. In extramural settings, care takes place at the patients' homes. Nurses often work alone when providing services. In fact, autonomy is often a main factor in their job choice decision (Neal, 2000; Veldhuizen, 2012). In intramural settings nurses work more intensively in teams with other nurses, carers and physicians. In general, the autonomy – for instance with respect to when and how to work - of nurses in extramural settings is higher (Neal, 2000; Veldhuizen, 2012). This is related to the fact that nurses in extramural settings work less intensively with team members and have to make more decisions on their own. Based on this work context, we hypothesize that nurses in extramural care also *expect* to be more autonomous. When their autonomy is being reduced, they will be more likely to leave their organization, as their expectations are not fulfilled (Nevidjon & Erickson, 2001). Related to this, Ellenbecker (2004:306) notes that there is “strong evidence that the independence and professional autonomy in the role of home health care nurses is the major aspect of job satisfaction”. Contrary to this, nurses in intramural settings expect to be somewhat less autonomous. Hence, when they perceive less autonomy, we expect them to accept this more easily.

Related to this, we expect that the relationship of working atmosphere on intention to leave is more important for nurses working in intramural care than for nurses working in extramural care. In extramural care (home care), nurses work alone most of the time (Barling et al., 2001). Hence, when the working atmosphere in their team is not very pleasant, this will possibly only have a limited impact on them. In an intramural setting, nurses are surrounded by their colleagues most of the time, making the working atmosphere on the contrary very important. Based on this, we expect that for nurses in intramural care, there is a stronger relationship between working atmosphere and intention to leave than for nurses in extramural care.

Based on the above, we have formulated the following eight hypotheses:

Direct effects

H1: Work pressure positively influences intention to leave the organization.

H2: Quality of leadership negatively influences intention to leave the organization.

H3: Autonomy negatively influences intention to leave the organization.

H4: The quality of development and career opportunities negatively influences intention to leave the organization.

H5: The quality of the working atmosphere negatively influences intention to leave the organization.

H6: A clear organization vision negatively influences intention to leave the organization.

Moderating effects

H7: The effect of autonomy on intention to leave the organization is weaker for nurses working in intramural care than for nurses working in extramural care.

H8: The effect of a the quality of the working atmosphere on intention to leave the organization is stronger for nurses working in intramural care than for nurses working in extramural care.

Based on these eight hypotheses, a theoretical framework can be constructed. This is shown in Figure 1. The next Section discusses the method to test the hypotheses.

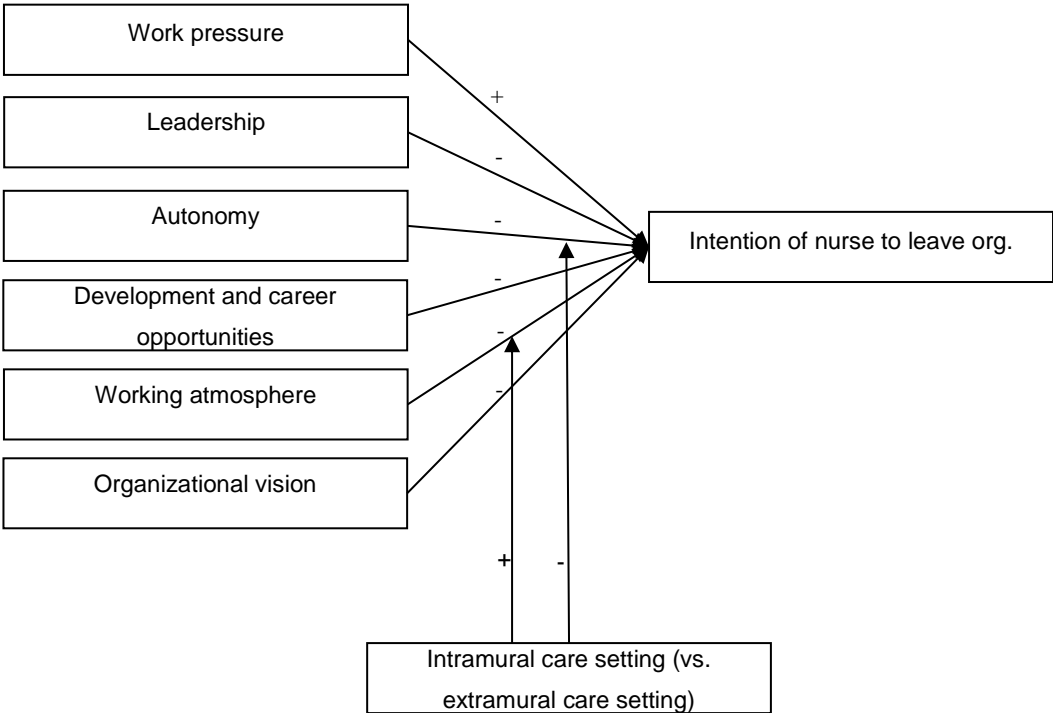


Figure 1 The hypothesized influence of six job characteristics on the intention of nurses working in long term care to leave their organization, including the moderating influence of healthcare setting (intramural care versus extramural care)

THE STUDY

Aim

This study aims firstly to analyze the impact of six job characteristics on the intention to leave the organization of nurses. Secondly, it aims to test whether the impact of these job characteristics differs between intramural and extramural long term care.

Design

Before discussing the design, it is important to shortly discuss the structure of the Dutch health care sector. Dutch health care is often divided into somatic and mental health care (psychologists, psychiatrists). Somatic care is divided into short term ('cure' sector, such as hospitals) and long-term ('care' sector, such as nursing homes). This research focuses on long term care. This is mainly financed using public funds, based on the "General Law on Exceptional Healthcare Costs" (AWBZ). This Law aims to provide general insurance covering the Dutch population against special health care needs.

In order to test the hypotheses, we used data from the *ActiZ Benchmark in Healthcare* (in Dutch, *ActiZ Benchmark in de Zorg*). This benchmark has been developed by ActiZ in cooperation with PwC (a major accountancy, tax and consultancy firm), for the period 2010-2015. The benchmark measures and compares the performance of among else intramural and extramural long term care (but also maternity care and youth care). It collects data on three main dimensions: clients (such as client satisfaction), employees (such as perceived work pressure), and business performance (such as total turnover) (ActiZ, 2011). Given our aim, we used the employee data. The employee data derive from an email survey (with various reminders) among all employees of the participating organizations.

Data collection

We analyzed the surveys held in autumn 2010, spring 2011 and autumn 2011, which comprise of comparable questionnaires. In total, 162 organizations participated in this period and they did so only once. In total 61,061 employees filled in the survey questionnaire, a response rate of 42% (Tummers et al., 2012).

From this sample, we selected the employees who indicated that their profession was nursing. Furthermore, we selected those nurses who worked either in intramural care or in extramural care. Hence, we did not for instance select nurses working in maternity care or youth care. This resulted in a final sample of 9,982 nurses in 156 organizations: 6,321 working in intramural care and 3,661 working in extramural care.

Of the valid responding nurses, 94% were women. This is consistent with Dutch averages for nurses in nursing care and care homes, which is predominantly a female

profession (93% women) (Maximum, 2009). The nurses' average age was 43 years, which is comparable to the Dutch average (41 years) (Maximum, 2009). Hence, the respondents mean age and gender-distribution are similar to those of population.

Validity and reliability

The survey and corresponding scales have been developed by ActiZ, PwC and Tilburg University. In order to test the validity of the developed scales, we firstly read and discussed the wording of the items. Secondly, exploratory factor analyses were performed on the original survey items using the sample of nurses in long term care on which this study is based. Based hereon, we made some small modifications. For intention to leave, leadership and career/development opportunities, we deleted 1, respectively 1 and 2 items as these were less suitable to measure the latent variables and negatively influenced the reliabilities. All other items for all other scales were preserved.

Intention to leave

The dependent variable intention to leave (intention to leave the organization) is measured using three items, using a five-point Likert scale (fully disagree to fully agree). Sample items are: "If I could, I would resign from this organization today" and "At the moment, I am actively searching for a job outside the healthcare sector". Cronbach's alpha = .85.

Work pressure

Work pressure (workload, physical and mental strain) is measured using six items, with response categories never, sometimes, often and always. A sample item is: "There are enough staff members for the work to be done". Cronbach's alpha = .82.

Leadership

Leadership (an active and motivating leadership style) is measured using four items, using the response categories never, sometimes, often and always. A sample item is "My direct supervisor inspires and motivates me". Cronbach's alpha = .91.

Autonomy

The indicator autonomy (empowerment and independency) taps the degree of freedom nurses have in their work. One of the in total four items is "I can decide myself how I realize my tasks". Response categories are never, sometimes, often or always. Cronbach's alpha = .77.

Development and career opportunities

Development and career opportunities (opportunities that the organization offers to develop skills and to foster career progress) is measured using three items with a five-point Likert-scale. A sample item is “My organization pays sufficient attention to my career”. Cronbach’s alpha = .76.

Work atmosphere

Work atmosphere (pleasure at work, a good team spirit and collegiality) is measured using three items on a five-point Likert scale. A sample item is: “The working atmosphere within my work unit/team is good”. Cronbach’s alpha = .88.

Organizational vision

We measure the organizational vision (the acknowledgement of ambitious goals as part of the mission of the organization) using four items with a five-point Likert scale. A sample item is “It is clear to me what the organization wants in the future”. Cronbach’s alpha = .79.

Control variables

We include a number of control variables, such as gender, age (five categories: <25, 26-35,36-45,46-55, >56 years) and managing position (yes/no). In addition, size of contract (four categories: 0-hours/call basis, 1-15, 15-28, 29 or more hours) is included. Next to this, of course the work setting is: intramural care (nursing homes, care homes) or extramural care (home care).

Ethical considerations

Ethical approval for employee surveys which do not contain possibly personal or sensitive subjects is not required in the Netherlands. All responses have been collected anonymously, and anonymity was stressed for the respondents.

Data analysis

The data was analyzed using SPSS 20.

RESULTS

Descriptive statistics

The means and standard deviations are shown in Table 1. To increase the ease of interpretation, all four and five point scales were recoded into 1-10 point scales. On average, the intention to leave the organization of nurses is quite low. Furthermore, nurses in intramural and extramural care do not differ in their average degree of intention to leave.

Nurses working in intramural care (nursing and home care) experience significantly more work pressure than nurses working in extramural care (homecare). Next to this, 'intramural nurses' experience less autonomy than 'extramural nurses', which is in line with related research (Neal, 2000; Veldhuizen, 2012).

Correlations of the variables are presented in Table 2. All correlations between the six job characteristics and intention to leave are statistically significant and in the anticipated direction.

Table 1 Descriptive statistics

	Min.	Max.	Avg. Intramu ral	Avg. Extram ural	Diff. betwe n care settings	Avg. total	SD total
Dependent variable							
Intention to leave the organization	1	10	2.75	2.66	2.24	2.71	1.95
Job characteristics							
Work pressure	1	10	5.21	4.27	-30.27*	4.87	1.64
Leadership	1	10	6.68	6.65	.05	6.67	2.39
Autonomy	1	10	6.80	7.13	-9.65*	6.92	1.64
Development & career opportunities	1	10	7.08	6.94	3.59*	7.03	1.67
Working atmosphere	1	10	7.67	7.81	-3.65*	7.72	1.91
Organizational vision	1	10	6.40	6.43	-0.9	6.41	1.69
Control variables							
Gender (0 = female. 1 = male)	0	1	0.07	0.04	20.72*	0.06	NA
Age (in groups)	1	5	3.16	3.41	115.63*	3.25	1.20
Years at employer	1	4	3.21	3.12	48.38*	3.18	0.93
Supervisory position (0 = no. 1 = yes)	0	1	0.14	0.08	101.93*	0.12	NA
Size of contract (in groups)	1	4	3.18	2.94	324.49*	3.09	0.79
Care setting (0 = Intramural. 1 = Extramural)	0	1	-	-	-	0.37	NA

Note: For the dependent variable and the job characteristics, a 1-10 scale was used to ease interpretation. N total=9,982, N intramural = 6,321, N extramural=3,661. * p < .01. Difference tests: T-test for continuous variables (all work quality indicators) and Chi Square test for nominal/ordinal variables (all control variable)

Table 2 Correlations between control variables (nr. 1-6), job characteristics (7-12) and intention to leave the organization (13)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	1												
2. Age	.007 (.459)	1											
3. Years at employer	-.047* (<.001)	.421* (<.001)	1										
4. Supervisory position	.083* (<.001)	.097* (<.001)	.048* (<.001)	1									
5. Size of contract	.151* (<.001)	-.013 (.200)	.076* (<.001)	.154* (<.001)	1								
6. Care setting	-.046* (<.001)	.103* (<.001)	-.044* (<.001)	-.101* (<.001)	-.143* (<.001)	1							
7. Work pressure	-.028* (<.001)	-.059* (<.001)	.083* (<.001)	-.055* (<.001)	.135* (<.001)	-.275* (<.001)	1						
8. Leadership	-.003 (.753)	-.062* (<.001)	-.083* (<.001)	.085* (<.001)	.035* (.001)	.005 (.603)	-.392* (<.001)	1					
9. Autonomy	-.004 (.717)	-.043* (<.001)	-.051* (<.001)	.125* (<.001)	.049* (<.001)	-.096* (<.001)	-.462* (<.001)	.462* (<.001)	1				
10. Development & career opportunities	-.036* (<.001)	-.085* (<.001)	-.096* (<.001)	.052* (<.001)	.018 (.095)	-.039* (<.001)	-.433* (<.001)	.576* (<.001)	.485* (<.001)	1			
11. Working atmosphere	-.012 (.229)	-.010 (.311)	-.025 (.013)	.044* (<.001)	-.018 (.075)	.036* (<.001)	-.334* (<.001)	.363* (<.001)	.374* (<.001)	.398* (<.001)	1		
12. Organizational vision	-.001 (.898)	.013 (.191)	-.078* (<.001)	.092* (<.001)	.031* (.002)	.009 (.353)	-.369* (<.001)	.418* (<.001)	.336* (<.001)	.499* (<.001)	.279* (<.001)	1	
13. Intention to leave the organization	.051* (<.001)	.038* (<.001)	.066* (<.001)	-.028* (.006)	.013 (.193)	-.023 (.025)	.372* (<.001)	-.373* (<.001)	-.348* (<.001)	-.463* (<.001)	-.384* (<.001)	-.344* (<.001)	1

Note: Actual p values in between brackets. * p < .01.

Results of regression analyses

Table 3 shows that the job characteristics – together with the control variables – explain 30% of the variation of intention to leave the organization. This is substantial, given that there are many different possible reasons outside the organization why nurses are inclined to leave, such as household situation and turnover opportunities.

Table 3 Impact of job characteristics and control variables on intention to leave the organization

	<i>Intramural</i>	<i>Extramural</i>	<i>Total</i>	<i>Total including interactions</i>
Job characteristics				
Work pressure	.16*	.11*	.14*	.14*
Leadership	-.08*	-.04*	-.06*	-.06*
Autonomy	-.02	-.10*	-.05*	-.05*
Development & career opportunities	-.22*	-.23*	-.22*	-.22*
Working atmosphere	-.18*	-.19*	-.18*	-.18*
Organizational vision	-.09*	-.09*	-.09*	-.09*
Control variables				
Gender (0 = female. 1 = male)	.05*	.04	.05*	.05*
Age (in groups)	.01	.02	.01	.01
Years at employer	.01	.02	.02	.01
Supervisory position (0 = no. 1 = yes)	.03	-.00	.02	.02
Size of contract (in groups)	.01	-.03	.00	.00
Care setting (0 = Intramural. 1 = Extramural)	-	-	.02	.03
Interaction of job characteristics and work setting				
Work pressure * setting	-	-	-	.02
Leadership * setting	-	-	-	.02
Autonomy * setting	-	-	-	-.04*
Development & career opportunities * setting	-	-	-	.00
Working atmosphere * setting	-	-	-	-.00
Organizational vision * setting	-	-	-	-.01
Adjusted R ²	.30*	.30*	.30*	.30*

Note: All independent variables are entered into the regression simultaneously, in order to assess the unique impact of each variable. Standardized regression coefficients are presented. * p < .01. The following criteria are met (based on Field, 2005): Criterion of independent residuals (Durbin-Watson all: 1.9 < criterion < 3). Criterion of no multicollinearity (no VIF values above 10 and average close to 1). No exclusion of influential outlying cases was required (Cook's distance all < .02 (criterion < 1). Criteria of homoscedasticity and normality met.

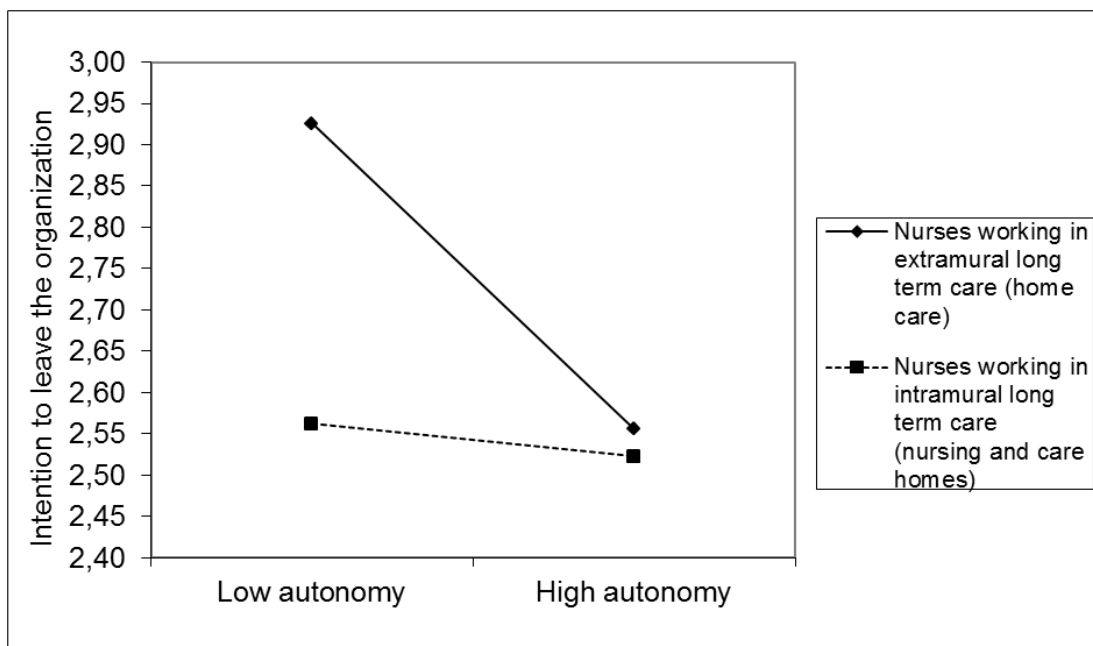
Work pressure (H1), leadership (H2), development & career opportunities (H4), working atmosphere (H5) and organizational vision (H6) are all antecedents for intention to leave of nurses working in long term care. Hence, we do not reject these hypotheses. Development and career opportunities are especially important. Furthermore, the working atmosphere and high work pressure were of considerable importance.

Considering Hypothesis 3, autonomy proved not to be significantly related to intention to leave for nurses working in intramural care. This was not the cases for nurses working in home care. For them, more autonomy decreases the intention to leave the organization. Hence, Hypothesis 3 is only supported for extramural nurses. Related to this, Hypothesis 7 noted that the effect of autonomy on intention to leave is weaker for nurses working in intramural care than for nurses working in extramural care. To analyze this systematically, we examined the interaction effect of autonomy with care setting on intention to leave. Such an interaction effect indeed appears in our empirical analyses. Figure 2 shows the interaction effect. To conclude, the degree of autonomy proves especially important in explaining the intention to leave for extramural nurses, but is far less important for intramural nurses.

Finally, Hypotheses 8 argued that the effect of a positive working atmosphere on intention to leave is stronger for nurses working in intramural care than for nurses working in extramural care. However, we have not found a significant interaction effect here. Hence, we reject this hypothesis.

The final model is shown in Figure 3.

Figure 2 Autonomy more important for explaining intention to leave for nurses working in extramural care (based on a template of dr. Jeremy Dawson, University of Sheffield, www.jeremydawson.co.uk/slopes.htm)



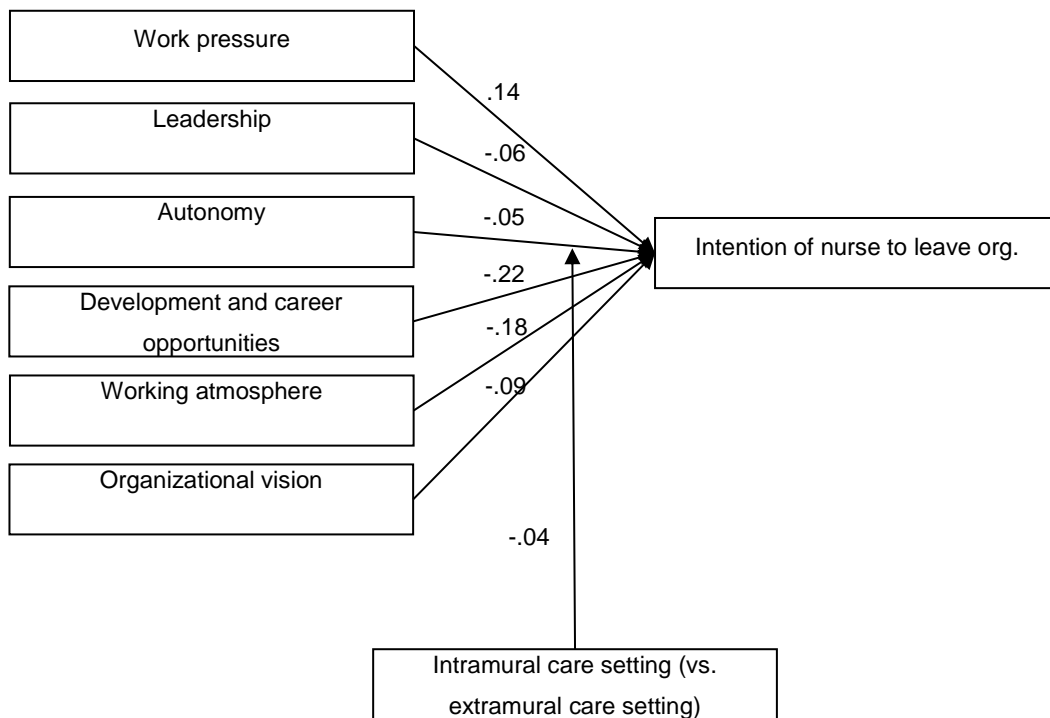


Figure 3 Results: The influence of job characteristics on the intention of nurses working in long term care to leave their organization, including the moderating influence of healthcare setting (autonomy more important for extramural care)

DISCUSSION

Contribution

Scholars have argued that the nursing turnover literature has a bias towards studying acute care. This study aimed therefore to analyze the impact of several job characteristics on the intention to leave the organization for nurses working in long term care. Furthermore, it aimed to test whether the impact of these job characteristics differs between intramural (nursing and care homes) and extramural (home care) long term care.

A theoretical model was constructed linking six job characteristics to intention to leave. This model was tested in a survey of 9,982 nurses from 156 Dutch organizations. The regression model explained 30 percent of the variance in intention to leave. The high internal consistency values and the satisfaction of regression criteria strengthen the reliability and the validity of the statistical conclusions drawn. As such, we can conclude that the model worked satisfactorily.

Based on the analyses, we can present the most important job characteristics for the explanation of intention to leave the organization of nurses working in intramural and extramural care: insufficient development and career opportunities is the most important factor, followed by a negative working atmosphere. Moreover, intention to leave turned out to

be partly context dependent: when nurses in home care felt that their autonomy was being reduced, this strongly influenced their intention to leave, while this was not the case for nurses working in nursing and care homes. Whereas the direct effect of leadership on intention to leave is relatively modest, we foresee an important role for leadership in improving these job characteristics and thereby reducing nurses' intention to leave.

A first important conclusion for scholars and managers in long term health care is that development and career opportunities play an important role in nursing turnover, in line with the overview articles on nursing turnover (Coomber & Barriball, 2007; Hayes et al., 2006; Hayes et al., 2011). Managers could identify what nurses find important in their training and development. This does not need to be limited to only promotions to higher positions (which is very difficult for nurses given the usual flat organizational hierarchy in health care organizations). Horizontal growth opportunities could also be beneficial. Reference can also be given to training to certain specializations, such as nurse practitioner or a specialization in certain client segments. We recommend managers to think about diverse development opportunities for nurses in their organization, and engage with nurses while developing these plans.

A second conclusion focuses on the importance of a pleasant working atmosphere. In the literature, the impact of the working atmosphere on intention to leave is not often examined. However, our research shows that it is indeed an important factor for the intention to leave of nurses. Therefore, HR and line managers should ensure that their organization ensures a good working atmosphere. Appreciation for each other's work, no personal harassment or bullying in the workplace, good relationships with colleagues, these are important for the intention of nurses to stay in their job. Team activities could furthermore foster the team spirit. Next to this, the introduction of a company counselor could be helpful in resolving unpleasant work experiences.

Thirdly, we conclude that intention to leave is partly context dependent. More specifically, we found that especially for nurses working in home care, autonomy is crucial for their intention to leave their organization. In general, nurses in home care were more autonomous than nurses in nursing and care homes. However, when their autonomy is being reduced, this will strongly influence their intention to leave, while this will not be the case for nurses working in nursing and care homes. Autonomy of nurses could be enhanced by involving them in preparing the work schedule. Next to this, they can be empowered by letting them choose their own working hours and work routes (for instance, which client to visit first).

Limitations

Notwithstanding the robust results from the regression analysis, this study has limitations. Firstly, the scales used were not validated in earlier studies. Future studies should further test the model of intention to leave in long term care using validated scales.

Secondly, the analysis makes assumptions about the direction of causality, moving from job characteristics to intention to leave the organization. A longitudinal design could be helpful to establish causality, which was impossible given the cross-sectional design of this survey. Furthermore, objective data on actual turnover would improve the validity of studies.

Thirdly, the survey results provide insight into the importance of several job characteristics for nurses' intention to leave their organizations, but not into the meaning of these factors within specific work contexts. Therefore, our recommendations to practitioners remain somewhat restricted to pointing at possible important factors, but these need to be further substantiated in small n qualitative research.

CONCLUSION

When nurses leave their organization, this can negatively affect organizational performance. Organizations have to recruit new nurses and tacit knowledge is lost. Furthermore, organizational turnover could contribute to the nursing shortage. We highlight reasons why nurses are inclined to leave their organization. The results show firstly that a negative evaluation of development and career opportunities appears to be the main reason why nurses intend to leave their organization. Secondly, a negative and unpleasant working atmosphere appears to be influential in explaining intention to leave. Thirdly, we found that – for nurses in home care organizations – low perceived autonomy is an important reason to leave their organization. This was not the case for nurses working in nursing care or care homes. Line managers and HR managers in long term care organizations need to take these conclusions into account, in order to retain the most qualified and suitable nurses for their organizations.

References

- ActiZ. (2011). *Aandacht loont (uitkomsten benchmark in de zorg 2011)*. Utrecht: ActiZ.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA: The Journal of the American Medical Association*, *288*(16), 1987-1993.
- Alexander, J. A., Lichtenstein, R. L., Oh, H. J., & Ullman, E. (1998). A causal model of voluntary turnover among nursing personnel in long-term psychiatric settings. *Research in Nursing & Health*, *21*(5), 415-427.
- Barling, J., Rogers, A. G., & Kelloway, E. K. (2001). Behind closed doors: In-home workers' experience of sexual harassment and workplace violence. *Journal of Occupational Health Psychology*, *6*(3), 255-269.
- Baum, J. R., Locke, E. A., & Kirkpatrick, S. A. (1998). A longitudinal study of the relation of vision and vision communication to venture growth in entrepreneurial firms. *Journal of Applied Psychology*, *83*(1), 43-54.
- Bluedorn, A. C. (1982). The theories of turnover: Causes, effects, and meaning. In S. B. Bacharach (Ed.), *Research in the sociology of organizations* (2nd ed., pp. 128-128) Greenwich, CT: JAI Press.
- Borda, R. G., & Norman, I. J. (1997). Factors influencing turnover and absence of nurses: A research review. *International Journal of Nursing Studies*, *34*(6), 385-394.
- Brewer, C. S., Kovner, C. T., Greene, W., & Cheng, Y. (2009). Predictors of RNs' intent to work and work decisions 1 year later in a US national sample. *International Journal of Nursing Studies*, *46*(7), 940-956.
- Buchan, J. (2012). Nurses' turnover: Reviewing the evidence, heeding the results? *Journal of Advanced Nursing*,
- Castle, N. G., & Engberg, J. (2005). Staff turnover and quality of care in nursing homes. *Medical Care*, *43*(6), 616-626.
- Castle, N. G., Engberg, J., Anderson, R., & Men, A. (2007). Job satisfaction of nurse aides in nursing homes: Intent to leave and turnover. *The Gerontologist*, *47*(2), 193-204.

- Coomber, B., & Barriball, K. L. (2007). Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature. *International Journal of Nursing Studies, 44*(2), 297-314.
- Ellenbecker, C. H. (2004). A theoretical model of job retention for home health care nurses. *Journal of Advanced Nursing, 47*(3), 303-310.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage.
- Gardulf, A., Söderström, I., Orton, M., Eriksson, L., Arnetz, B., & Nordström, G. (2005). Why do nurses at a university hospital want to quit their jobs? *Journal of Nursing Management, 13*(4), 329-337.
- Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., et al. (2011). Nurse turnover: A literature review—an update. *International Journal of Nursing Studies, 49*, 887-905.
- Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., et al. (2006). Nurse turnover: A literature review. *International Journal of Nursing Studies, 43*(2), 237-263.
- Hwang, J. I., & Chang, H. (2006). Explaining turnover intention in Korean public community hospitals: Occupational differences. *The International Journal of Health Planning and Management, 23*(2), 119-138.
- Jinnett, K., & Alexander, J. A. (1999). The influence of organizational context on quitting intention: An examination of treatment staff in long-term mental health care settings. *Research on Aging, 21*(2), 176-204.
- Kantabutra, S., & Avery, G. C. (2007). Vision effects in customer and staff satisfaction: An empirical investigation. *Leadership & Organization Development Journal, 28*(3), 209-229.
- Karantzas, G. C., Mellor, D., McCabe, M. P., Davison, T. E., Beaton, P., & Mrkic, D. (2012). Intentions to quit work among care staff working in the aged care sector. *The Gerontologist, 52*(4), 506-516.

- Karsh, B., Booske, B. C., & Sainfort, F. (2005). Job and organizational determinants of nursing home employee commitment, job satisfaction and intent to turnover. *Ergonomics*, 48(10), 1260-1281.
- Knapp, M., & Missiakoulis, S. (1983). Predicting turnover rates among the staff of english and welsh old people's homes. *Social Science & Medicine*, 17(1), 29-36.
- Krausz, M., Koslowsky, M., Shalom, N., & Elyakim, N. (2006). Predictors of intentions to leave the ward, the hospital, and the nursing profession: A longitudinal study. *Journal of Organizational Behavior*, 16(3), 277-288.
- Kukkurainen, m. I., Suominen, t., Rankinen, s., Härkönen, e., & Kuokkanen, I. (2011). Organizational vision: Experience at the unit level. *Journal of Nursing Management*, 20(7), 868-876.
- Larrabee, J. H., Janney, M. A., Ostrow, C. L., Withrow, M. L., Hobbs, G. R., & Burant, C. (2003). Predicting registered nurse job satisfaction and intent to leave. *Journal of Nursing Administration*, 33(5), 271-283.
- Larwood, L., Falbe, C. M., Kriger, M. P., & Miesing, P. (1995). Structure and meaning of organizational vision. *Academy of Management Journal*, 38(3), 740-769.
- Liu, C. M. (2006). The effect of organisational vision on service quality delivery. *The Service Industries Journal*, 26(8), 849-859.
- Maximum. (2009). *Strategisch arbeidsmarktcommunicatieplan deel 1: Onderzoeksrapportage in opdracht van FAOT en SAB-V&V* [null] . Den Haag: Aovvt.
- Neal, L. J. (2000). *On becoming a home health nurse: Practices meets theory in home care nursing*. Washington DC: Home Care University & Home Healthcare Nurses Association.
- Nevidjon, B., & Erickson, J. I. (2001). The nursing shortage: Solutions for the short and long term. In L. Andrist, P. Nicholas & K. Wolf (Eds.), ***A history of nursing ideas*** (pp. 461-472). Sudbury: Jones and Bartlett.
- Oswald, S. L., Mossholder, K. W., & Harris, S. G. (2006). Vision salience and strategic involvement: Implications for psychological attachment to organization and job. *Strategic Management Journal*, 15(6), 477-489.

RIVM. (2012). *Zorggegevens.*, 2012, from www.zorggegevens.nl

Shacklock, K., & Brunetto, Y. (2011). The intention to continue nursing: Work variables affecting three nurse generations in australia. *Journal of Advanced Nursing*, 68(1), 36-46.

Shields, M. A., & Ward, M. (2001). Improving nurse retention in the national health service in england: The impact of job satisfaction on intentions to quit. *Journal of Health Economics*, 20(5), 677-701.

Tummers, L. G., Groeneveld, S. M., & Lankhaar, M. (2012). Binding en diversiteit van zorgmedewerkers: Een grootschalige analyse binnen de verpleging, verzorging en thuiszorg. *Tijdschrift Voor HRM*, 15(3), 32-55.

Tzeng, H. M. (2002). The influence of nurses' working motivation and job satisfaction on intention to quit: An empirical investigation in taiwan. *International Journal of Nursing Studies*, 39(8), 867-878.

Veldhuizen, B. G. (2012). *How to attract and retain employees of all ages*. Twente: University of Twente.

Wheeler, A. R., Gallagher, V. C., Brouer, R. L., & Sablynski, C. J. (2007). When person-organization (mis) fit and (dis) satisfaction lead to turnover: The moderating role of perceived job mobility. *Journal of Managerial Psychology*, 22(2), 203-219.

Yin, J. C. T., & Yang, K. P. A. (2002). Nursing turnover in taiwan: A meta-analysis of related factors. *International Journal of Nursing Studies*, 39(6), 573-581.

Zimmerman, S., Gruber-Baldini, A. L., Hebel, J. R., Sloane, P. D., & Magaziner, J. (2008). Nursing home facility risk factors for infection and hospitalization: Importance of registered nurse turnover, administration, and social factors. *Journal of the American Geriatrics Society*, 50(12), 1987-1995.

Conflicts of interest

No conflicts of interest.

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Author contributions

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