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Title: Perceived development opportunities and reward satisfaction as antecedents of nurses' job withdrawal intentions

Year: 2016

Version:

Please cite the original version:

Salminen, H., von Bonsdorff, M., Koponen, S., & Miettinen, M. (2016). Perceived development opportunities and reward satisfaction as antecedents of nurses' job withdrawal intentions. *International Journal of Work Innovation*, 1(4), 330-352.
<https://doi.org/10.1504/IJWI.2016.078644>

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Perceived development opportunities and reward satisfaction as antecedents of nurses' job withdrawal intentions

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Abstract: Retention of nurses has received considerable attention in recent years due to the ageing population and the shortage of nurses. However, most of the studies have concentrated on either older nurses' early retirement or younger nurses' turnover intentions. This study analyses the antecedents of different forms of job withdrawal intentions with special reference to perceived development opportunities and reward satisfaction. A quantitative survey was conducted among nurses in one Finnish University hospital. A total of 510 nurses completed the questionnaire, representing a 54.4% response rate. The results demonstrated that job withdrawal intentions were relatively common and age-dependent among respondents. Good work ability and high reward satisfaction decreased the odds for both occupational turnover and early retirement intentions. Development opportunities perceived as good decreased the odds for organisational turnover intentions, but slightly increased the odds for early retirement intentions. In sum, improving nurses' work ability and reward satisfaction could be used to prevent different forms of job withdrawal intentions, whereas age-sensitivity is required when it comes to providing development opportunities.

Keywords: ageing; age; nurse; human resource management; HRM; development opportunities; reward satisfaction; job withdrawal; early retirement; turnover.

Reference to this paper should be made as follows: Salminen, H., von Bonsdorff M., Koponen, S. and Miettinen, M. (xxxx) ‘Perceived development opportunities and reward satisfaction as antecedents of nurses’ job withdrawal intentions’, *Int. J. Work Innovation*, Vol. X, No. Y, pp.xxx–xxx.

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This paper is a revised and expanded version of a paper entitled ‘Retaining ageing and younger nurses – focus on perceived HR practices’ presented at the 28th Workshop on Strategic Human Resource Management, Copenhagen, Denmark, 15–16 April 2013.

1 Introduction

The greying of the workforce in industrialised countries has been described as ‘a demographic time bomb’ [Tempest et al., (2002), p.487; see Kunze et al., 2011] which puts pressure on governments, institutions and organisations and forces them to create strategies to manage the ageing workforce (Buyens et al., 2009; Ilmarinen, 2006; Lazazzara and Bombelli, 2011; Walker, 2005). For example, Finland is one of the most

rapidly ageing societies in the world due the rather large baby-boom generation, increased life-expectancy and the low fertility rate (Ilmarinen, 2006). The amount of citizens over 65 years of age has risen from 13.5% in 1990 to 17.5% in 2010, and the life expectancy among Finns has increased by approximately 25 years during the last century. The current life expectancy for men is 76 years and for women 82 years in Finland. In 2011, the fertility rate was 1.83 children in Finland (Health Care in Finland, 2013). Given these demographic changes, Finland has been active in searching for ways to retain ageing employees in the workforce and to postpone the retirement age (Ilmarinen, 2006).

The consequences of the demographic changes are distinct, especially in the healthcare field, because an ageing population needs more healthcare services, but at the same time, healthcare professionals themselves, like nurses, are ageing (Aiken et al., 2012). Therefore, the nursing shortage is seen as a one of the most pressing concerns in the healthcare field at the moment (OECD, 2014). In Finland, the nursing intensity (9.6 nurses per 1,000 people) was above the OECD average (eight nurses per 1,000 people) in 2012. However, in the coming years a large number of Finnish nurses are retiring (Attree et al., 2011). In addition, the problem of the nursing shortage is worsened by the occupational (Flinkman, 2014; Flinkman et al., 2008, 2010) and organisational turnover among nurses (Aiken et al., 2012). Recent studies have demonstrated that approximately 25% of Finnish nurses consider occupational turnover (Flinkman et al., 2008; Salminen, 2012), whereas, almost 50% of Finnish nurses consider leaving their job (Aiken et al., 2012). Along with these challenges, the current economic downturn influences healthcare organisations around the world (Buchan et al., 2013) forcing them towards greater financial 'efficiency' (Aiken et al., 2012). For example, in Finland, the public health-care sector is under structural reform aiming to ensure high-quality services for citizens in all areas of the country (Health Care in Finland, 2013).

Challenges related to the ageing workforce have generated a number of human resource management (HRM) studies, which have focused on searching for ways to retain ageing employees in the workforce (Lazazzara and Bombelli, 2011; Walker, 2005). However, there is evidence that different sectors differ in terms of tolerance towards ageing employees (Lazazzara and Bombelli, 2011) as well as activeness related to searching for ways to retain ageing employees (Pärnänen, 2011). When it comes to the Finnish healthcare sector, older employees are valued, but at the same, younger employees are allured for work (Pärnänen, 2011). Intensification of recruitment methods (Heilmann, 2010), recruiting nurses from abroad and increasing the amount of nursing students (Blakeley and Ribeiro, 2008) have been proposed as solutions to tackling the nursing shortage. However, some researchers have stressed that this problem cannot be solved only by recruiting *more* nurses, but by retaining and effectively utilising the skills and competencies of current nurses (Buchan et al., 2013; Armstrong-Stassen and Schlosser, 2010). Therefore, it has been suggested that healthcare organisations need to focus on their HRM practices in order to respond and satisfy the needs and preferences of different aged nurses (Lavoie-Tremblay et al., 2006, 2010). Retention of the current committed nurses is also suggested as a prominent avenue to improve the quality of patient care and patient safety in hospitals (Aiken et al., 2012).

There is already a bulk of studies concerning the retention of nurses, but most of these studies have concentrated either on older or younger nurses. For example, some studies have focused on older nurses' early retirement intentions (von Bonsdorff, 2009; Zappalà

et al., 2008), while other studies have investigated younger nurses' organisational or occupational turnover (Flinkman, 2014; Flinkman et al., 2008, 2010; Hasselhorn et al., 2005). In other words, most of the previous studies have analysed the antecedents of a single job withdrawal intention, for example early retirement, organisational turnover or occupational turnover. Less attention has been paid to the significance of perceived HRM practices for the retention of both ageing and younger nurses in the same study (Salminen, 2012). Therefore, there is a need to study the different forms of job withdrawal intentions among ageing and younger nurses, but also to understand the similarities and differences in the antecedents of job withdrawal intentions (Hanisch and Hulin, 1990, 1991).

Our aim is to examine the antecedents of different forms of job withdrawal intentions (occupational and organisational turnover and early retirement) among different aged nurses in one Finnish public university hospital. More specifically, we focus on the significance of perceived development opportunities and reward satisfaction for nurses' job withdrawal intentions because these have been identified as vital elements for the prevention of job withdrawal intentions in earlier studies (Flinkman et al., 2008; Fochsen et al., 2005; Hayes et al., 2006; Lavoie-Tremblay et al., 2006). The research question is therefore as follows: 'How are perceived development opportunities and reward satisfaction related to nurses' intention to leave the profession or the organisation and retire early?'

2 Theoretical framework

2.1 An age perspective on HRM

Retention of ageing employees as a research topic overlaps different scientific disciplines, such as social gerontology, work ability research, psychology, adult education and HRM studies (Ilmarinen et al., 2005; Julkunen and Pärnänen, 2005). In the field of HRM, studies which have focused on the significance of HRM practices for the retention of ageing employees have either focused on a specific area of HRM, such as training (Armstrong-Stassen and Templer, 2005), or they have analysed the significance of multiple HRM practices and policies for the retention of ageing employees (Kooij et al., 2010). Age-related HRM studies also differ in terms of the level of analysis. Some studies have adopted an organisational level perspective and analysed the actual HRM practices used in organisations (Parry and Tyson, 2009), whereas some HRM scholars, who have stressed the importance of employee-level perspective, have examined how employees perceive HRM practices used in the organisations (Armstrong-Stassen and Schlosser, 2010; Kooij et al., 2010). However, there are also HRM studies, which have combined both organisational- and employee-level perspectives (Halme, 2011; Pärnänen, 2011).

Previous HRM studies also differ in terms of how the boundaries for ageing employees have been defined (Lazazzara and Bombelli, 2011). For example, the threshold for ageing employee has varied from 40 (Buyens et al., 2009) to 50 (Armstrong-Stassen and Cattaneo, 2010; Armstrong-Stassen and Templer, 2005; Herrbach et al., 2009) in different studies. In this study, the age of 45 has been used as a criteria for referring to 'ageing' employees, which is in line with the operationalisation used by the World Health Organisation (WHO) (Brough et al., 2011). This threshold has

been justified by both work ability (Camerino et al., 2008; Ilmarinen, 2006) and career-related reasons (Buyens et al., 2009). However, there are researchers who have stressed the importance of the cultural context when defining the threshold for ageing, referring, for example, to the differences in terms of perceived age discrimination in different countries (Lazazzara and Bombelli, 2011). In addition, the importance of understanding the multidimensional and gendered-aspect of ageing has been emphasised (Aaltio et al., 2014).

Given the complexity of the topic related to the retention of ageing and younger employees, we take an employee-level perspective to HRM. In other words, we analyse ageing and younger nurses' perceptions of development opportunities and reward satisfaction, and examine how they are related to nurses' job withdrawal intentions. In this study, development opportunities are understood to cover opportunities for professional competence development, opportunities to use one's competencies and opportunities for both hierarchical and horizontal career progress (Salminen, 2012). For example, in the nursing literature, along with formal training opportunities, the significance of work-based learning opportunities has been recognised. In practice, this means that the work itself provides opportunities for an employee to learn and utilise one's skills and competencies and that it meets the needs of both the organisation and the employee (Williams, 2010). Recent HRM studies have also paid attention to the possible problems related to career plateauing, especially in later years of people's careers (Armstrong-Stassen and Ursel, 2009). Finnish nurses in general evaluate their opportunities for hierarchical career progress as rather weak (Laine et al., 2011). Previous studies have provided mixed results in terms of the relationship between perceived development opportunities and nurses' occupational and organisational turnover intentions. For example, Fochsen et al. (2005) and Flinkman (2014) have demonstrated that lack of professional opportunities influenced nurses' intention to leave their profession. However, Salminen's (2012) study did not confirm this result. Providing development opportunities has also been seen as one way to tackle early retirement (Lavoie-Tremblay et al., 2006).

In this study, the concept of reward satisfaction is partly based on equity theory and the discrepancy model, both of which emphasise pay satisfaction in terms of fairness and an equitable relationship between effort and rewards (Heneman and Schwab, 1985). Furthermore, rewarding is considered to consist of financial and non-financial elements (Armstrong, 1999; Schuler and Jackson, 1996). The origins of this classification can be traced back to the school of human relations. These means of reward should, ideally, create a motivating and effective total reward system. Besides pay, financial rewarding includes bonuses (such as results-based pay), options, stocks, insurance, and retirement benefits (Armstrong, 1999; Schuler and Jackson, 1996). Non-financial rewards can comprise meaningful job assignments, job security, praise, and recognition, as well as possibilities for personal growth (Armstrong, 1999; Schuler and Jackson, 1996). A central element in non-financial rewarding is the possibility for continuous growth and development, a vital issue in our knowledge society. Previous studies have consistently demonstrated that pay dissatisfaction influences younger nurses' occupational turnover intentions (Flinkman et al., 2008, 2010; Fochsen et al., 2005) and older nurses' early retirement intentions (Currall et al., 2005; Miceli et al., 1991; von Bonsdorff, 2009; Zappalà et al., 2008). In addition, financial incentives have been suggested as one option to retain nurses in their jobs (Blakeley and Ribeiro, 2008).

2.2 *Explanations concerning the links between perceived development opportunities, reward satisfaction and nurses' job withdrawal intentions*

In the withdrawal literature, a distinction is made between job withdrawal and work withdrawal. The former refers to employees' intentions to "remove themselves from a specific organisation and their work role; withdrawal from their job" [Hanisch and Hulin, (1991), p.111], whereas, the latter describes behaviours of dissatisfied employees, for example lateness, leaving early and absenteeism, while they are still maintaining membership in the organisation (Adams and Beehr, 1998; Hanisch and Hulin, 1991). In this study, we focus on three forms of job withdrawal intentions: occupational turnover, organisational turnover and early retirement intentions. Occupational turnover is understood as abandoning one's profession (Flinkman, 2014; Flinkman et al., 2008, 2010), whereas organisational turnover is defined as one's intention to leave his or her job (Aiken et al., 2012). Early retirement intentions are understood as intentions for voluntary early retirement (Adams and Beehr, 1998). In other words, we examine the intentions for 'physical' and voluntary withdrawal from one's profession, organisation and working life. Given this focus, we leave out, for example, presenteeism, which refers to "attending work while ill" (Johns, 2010).

Due to the cross-sectional setting of this study, we investigate employees' job withdrawal intentions instead of actual behaviour. This can be justified by the fact that previous studies have shown that job withdrawal intentions are a strong indicator of actual withdrawal behaviour both in the turnover (Fishbein and Ajzen, 1975) and retirement literature (Adams and Beehr, 1998; Beehr, 1986).

Viewing organisational and occupational turnover as well as early retirement intentions as a part of the larger job withdrawal concept, we understand these intentions as "a cognitive consideration process" [Flinkman, (2014), p.20], "serving the same function", the psychological withdrawal from one's job [Adams and Beehr, (1998), p.644]. In Finland, employees' possibilities for exiting working life all together are: old-age retirement, gradual retirement (part-time retirement), disability pension, unemployment, and the voluntary withdrawal route (i.e., the possibility for early retirement at the age of 62, which reduces benefits permanently) [Järnefelt, (2010), p.30]. Bridge employment, participating in gainful work during retirement, may theoretically be considered as an alternative option for turnover (occupational or organisational) in older age and may include career bridge employment or bridge employment in another field, as described by e.g., Shultz (2003). While it is possible for employees to take on bridge employment, retire due to old age (between ages 63 and 68) and continue in gainful employment and thus increase their retirement income, it is not usual in Finland to do so (Finnish Center for Pensions, 2014).

According to the Finnish Center of Pensions report, in 2012 only a small percentage of those aged 63–67 years, 8.6 percent of those eligible for pension ($n = 34,296$, women $n = 16,918$), had been working (as wage earners and self-employed) in retirement (Kannisto, 2014). Those who engage in bridge employment are likely to continue working in their career jobs (in the organisation they retired from) in part-time jobs. The Finnish pension system is designed to secure the income of older individuals or individuals who due to illness have transitioned into disability pension. However, for some older employees bridge employment may compensate for a low pension level. Nevertheless, in addition to the small number of employees taking on bridge employment, the financial gain from this work is not likely to be significant. According

to statistics from the Finnish Center for Pensions, the average earning from bridge employment in Finland is relatively modest, on average 1,100 euros/month. Average pension is 1,800 euros, but as with the bridge employment earnings, variation is significant (Kannisto, 2014).

Given this, retiring from the current work organisation and being employed in another organisation as a nurse or in some other profession, is not common practice in Finland. Therefore, it is assumed in this study that turnover and early retirement intentions are substitutes in line with previous research (Adams and Beehr, 1998).

Only few previous studies have analysed the common antecedents of different forms of job withdrawal intentions (Adams and Beehr, 1998; Camerino et al., 2008; Hanisch and Hulin, 1990, 1991; Salminen, 2012), even though they can be seen as sharing similarities, such as having a procedural nature (Beehr, 1986; Flinkman et al., 2010; Lum et al., 1998), and being influenced by a number of personal, work-related and non-work-related factors (Beehr et al., 2000; Camerino et al., 2008; Hayes et al., 2006; Schlosser et al., 2011). However, there are also adverse views about the similarities of turnover and early retirement intentions. For example, Adams and Beehr (1998) have argued that turnover and retirement have important differences, because retirement involves leaving one's work life altogether. In other words, when employees consider retirement, they consider their current state of working against a decreased participation in working life, whereas employees weighing turnover, evaluate other options in their working life (Adams and Beehr, 1998). Moreover, it has been argued that early retirement is never totally an individual's own choice; rather, it is influenced by multiple factors (Julkunen and Pärnänen, 2005).

The influence of perceived HRM practices on employees' job withdrawal intentions have been explained differently in different research strands. Most HRM studies rely on social exchange theory, which highlights the reciprocal nature of the relationship between an employee and his or her organisation (Armstrong-Stassen and Ursel, 2009). According to this perspective, employees' perceptions about the HRM practices used in the organisation contribute to employees' work-related attitudes and finally to their behaviour, for example, their decisions to stay with or leave the organisation. However, only a few of the recent HRM studies have focused on the significance of how HRM practices may differ depending on age or career stage (Finegold et al., 2002; Conway, 2004; Kooij et al., 2010). For instance, Kooij et al. (2010) identified in their meta-analysis a number of maintenance HRM practices and a number of developmental HRM practices. Maintenance HRM practices focus, for example, on teamwork and information, job security, work schedules and performance management aimed at helping employees maintain their current work ability. Developmental HRM practices include training, internal promotion and appraisal, which enable employees' growth and higher level of functioning. Kooij et al (2010) demonstrated that the association between maintenance HRM practices and work-related attitudes strengthened with chronological age, whereas the association between developmental HRM practices and work-related attitudes weakened with age.

Age management studies have also stressed the importance of HRM practices for retaining different aged employees. However, age management studies focus more explicitly on the balance between employees' resources and the demands of the work. In this line of studies, training and development practices, for instance, are seen as a way to maintain and improve employees' work ability, which will enhance their ability to

continue working in the organisation (Ilmarinen, 2006). As a concept, work ability refers to the balance between an employee's resources (for example, skills, motivation and health) and his or her work demands (Ilmarinen, 2006; Ilmarinen et al., 2005). Previous studies have demonstrated that good work ability decreases the risk for both organisational and occupational turnover intentions (Camerino et al., 2008) as well as early retirement intentions (von Bonsdorff, 2009).

In sum, this study focuses on developmental HRM practices, perceived development opportunities, and reward satisfaction and analyses how they are related to nurses' intention to leave their current work organisation and their profession and to retire early. In addition, we are interested to find out whether these different forms of job withdrawal intentions share similar antecedents. Drawing on the theoretical review, we test the following three hypothesis:

- Hypothesis 1 Good perceived development opportunities are negatively related to occupational turnover intentions, organisational turnover intentions and early retirement intentions.
- Hypothesis 2 Reward satisfaction is negatively related to occupational turnover intentions, organisational turnover intentions and early retirement intentions.
- Hypothesis 3 Better perceived work ability is negatively related to occupational turnover intentions, organisational turnover intentions and early retirement intentions.

First, the different forms of job withdrawal intentions were investigated in all age categories. After that, logistic regression analyses were performed in order to test the hypotheses. In logistic regression analyses, age was treated as an independent continuous variable.

3 Methodology

3.1 Data collection

Data for this study were collected from a university hospital in Finland during December 2006 and January 2007, as a part of an age management project at the University of Jyväskylä School of Business and Economics. Participants who were permanently (long-term employment) or temporarily (fixed-term employment) employed nurses working in non-managerial positions in either the operative or the psychiatric divisions of care, were asked questions regarding their health, work-related attitudes, perceived management practices and intentions of continuing to work, retiring, and turnover. A total of 937 questionnaires were distributed via the internal hospital post to the participants. This was considered the most suitable method, because the researchers did not have the participants' home addresses. A personalised envelope with a 12-page questionnaire and a return envelope was sent to each nurse. One follow-up mailing was carried out. Participation in the research was voluntary. Permission to conduct the study was received from the hospital's Ethical Committee.

In total, 510 questionnaires were returned, yielding a response rate of 54.4%. This response rate can be considered satisfactory for self-reported questionnaires (Badger and Werrett, 2005). For example, in a recent large hospital survey conducted in 12 European countries, the average nurse response rate was 62% (Aiken et al., 2012). In the current study, the questionnaires were coded to identify non-returns. There were no statistically significant differences between respondents and non-respondents in terms of demographic data (age, gender and form of employment), implying that no systematic bias occurred among the studied respondents.

3.2 Measures

There is no established scales for measuring different forms of job withdrawal intentions, which makes it difficult to compare earlier studies. Many of the previous studies used only a few items or even one item to investigate occupational turnover (Flinkman, 2014; Flinkman et al., 2008, 2010; Hasselhorn et al., 2005), organisational turnover (Aiken et al., 2012; Camerino et al., 2008) or early retirement intentions (Adams and Beehr, 1998; Lehto and Sutela, 2008). In this study, occupational turnover intentions were measured through the question 'How often during the last year have you thought about leaving your current occupation to undertake another kind of job?', which was a modified version of the question used in the NEXT-study (Flinkman et al., 2008; Hasselhorn et al., 2005). Organisational turnover intentions were measured using the question: 'How often during the last year have you thought about leaving your current organisation to undertake a job in another organisation?', which is a modified version of the question applied in Quality of Work Life Surveys conducted by Statistics Finland (Lehto and Sutela, 2004, 2008). The scale ranged from 1 to 5 (1 = never, 2 = a few times a year, 3 = a few times a month, 4 = a few times a week and 5 = every day), and it was further dichotomised into those who have frequent thoughts of leaving their organisation/occupation (a few times a month or more often) and those who consider leaving their organisation/occupation a few times a year or not at all in line with previous studies (Flinkman et al., 2008; Hasselhorn et al., 2005).

Early retirement intentions were assessed with the statement: 'I will retire as soon as possible'. A five-point scale was used, with higher scores indicating a higher intent to retire soon (1 = totally disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree and 5 = totally agree). This scale was dichotomised into those who have frequent early retirement intentions (totally agree or somewhat agree) and those who do not have frequent intentions for early retirement (totally disagree, somewhat disagree or neither agree nor disagree). Similar classifications have been used in previous studies on early retirement intentions (Harkonmäki et al., 2009; von Bonsdorff et al., 2010).

In previous studies, perceived development opportunities have been operationalised differently. In this study, the perceived development opportunities scale consisted of items which were based on previous studies concerning the perceived development opportunities of nurses (Armstrong-Stassen and Cameron, 2005) and employees from different occupations (Adult Education Survey, 2006; Lehto and Järnefelt, 2000; Tikkanen et al., 2002; Tuomi and Vanhala, 2002). These items were selected in order to broadly cover opportunities for professional competence development, opportunities to use one's professional competencies and opportunities for career progress. The HR manager of the studied hospital, as well as an adult education scholar were consulted in

order to ensure the validity and suitability of the scale. The sum variable included 11 items. An example question is, 'What kind of opportunities do you have to receive training that promotes professional competencies?' (see Appendix). A five-point response scale was applied for these items varying from (1) very poor to (5) very good (Cronbach's $\alpha = 0.859$).

The scale concerning reward satisfaction consisted of 18 Likert-scale questions based on the pay satisfaction questionnaire (Heneman and Schwab, 1985; Heneman et al., 2002). The scale consisted of four elements: pay satisfaction, pay raises, pay administration and structure, and non-financial rewards. An example question is, 'How satisfied are you with the way your salary is developing?' (see Appendix). The five-point response scale varied between (1) extremely dissatisfied to (5) extremely satisfied (Cronbach's $\alpha = 0.908$).

Work ability was studied using one question from the work ability index (WAI) (Tuomi et al., 2002). Respondents were asked to evaluate their current work ability compared to their lifetime best. The scale range was from 0 to 10, with 10 indicating work ability at its best. This single item question has been demonstrated to correlate strongly with the whole WAI, being therefore a reliable measure of employees' self-rated work ability (Ahlström et al., 2010; Tuomi et al., 2002).

In addition to calendar age and gender, respondents were asked to indicate the highest level of their occupational education. This was further categorised into two groups:

- 1 college level or lower
- 2 bachelor's degree or higher.

The respondents were classified according to the type of employment into:

- 1 permanent
- 2 temporary.

Finally, the respondents were asked to indicate in years the work experience they have in their current organisation and in their profession.

3.3 Data analysis

Data were described using percentages or means and standard deviations, and the bivariate correlations between studied variables were measured using a Spearman correlation (Table 1). Because previous studies indicate that job withdrawal intentions are often age-dependant (Camerino et al., 2008), the χ^2 -test was used to examine differences in occupational and organisational turnover intentions and early retirement intentions according to four age groups (under 35, 35–44, 45–54, and 55 and over; Table 2). This categorisation is in line with several earlier studies (Lehto and Järnefelt, 2000; Lehto and Sutela, 2004). In correlation and regression analyses, age was treated as a continuous variable. Perceived development opportunities and reward satisfaction sum variables were created by adding the items together and dividing them by the number of items they contained.

Table 1 Characteristics of the study variables

Variables	Value	n	I	2	3	4	5	6	7	8	9
Gender %											
Men	17%	87									
Women	83%	423									
Occupational education %											
College level or lower	69%	346									
Bachelor's degree or higher	31%	158									
Division of care %											
Psychiatric	29%	363									
Operative	71%	147									
Type of employment %											
Permanent employment	75%	384									
Temporary	25%	120									
1 Age, years	41.5 (9.7)	510	-								
2 Work experience, current profession, years	14.4 (9.6)	507	-0.764**	-							
3 Work experience, current organisation, years	12.7 (9.0)	503	0.719**	0.798**	-						
4 Work ability	8.4 (1.3)	504	-0.319**	-0.302**	-0.286**	-					
5 Perceived development opportunities	3.5 (0.5)	494	-0.107*	-0.110*	-0.095*	0.226**	-				
6 Reward satisfaction	2.2 (0.6)	493	-0.037	-0.071	-0.116*	0.163**	0.392**	-			
7 Occupational turnover intentions (frequent) %	2.2 (1.1)	152	-0.216**	-0.078	-0.071	-0.168**	-0.226**	-0.284**	-		
8 Organisational turnover intentions (frequent) %	1.9 (1.0)	94	-0.231**	-0.210**	-0.241*	-0.033	-0.213**	-0.190**	0.422**	-	
9 Early retirement intentions (frequent) %	3.3 (1.5)	243	0.185**	0.223**	0.229**	-0.131**	-0.012	-0.109*	0.087	-0.092*	-

Notes: Means and standard deviations unless stated otherwise. Correlations (Spearman) between continuous study variables and outcomes.

*p < 0.05, **p < 0.01 Work ability, range 0–10, higher score indicating better work ability, perceived development opportunities range 1–5, higher score indicating a higher level of development opportunities, reward satisfaction range 1–5, higher score indicating higher reward satisfaction.

Table 2 Frequent intentions for job withdrawal % (n) according to age groups

<i>Age groups</i>	<i>Frequent intent to leave the profession</i>		<i>Frequent intent to search for a job from another hospital</i>		<i>Intention to retire as soon as possible</i>	
	%	(n)	%	(n)	%	(n)
Under 35	36%	51	26%	37	36%	52
35–44	39%	58	18%	27	48%	72
45–54	23%	35	16%	25	50%	70
Over 54	14%	8	9%	5	75%	42
Total	30%	152	19%	94	48%	243
χ^2	17.515	df = 3, $p = 0.001$	9.398	df = 3, $p = 0.024$	24.330	df = 3, $p = 0.001$

Work ability and background variables (age, gender, occupational education, type of employment, unit of care and work experience in current organisation/profession) were treated as independent variables, and logistic regression analysis using the enter method was used to explore development opportunities and reward satisfaction as antecedents of occupational turnover, organisational turnover and early retirement intentions. Previous research has indicated that age, education and work ability are independently associated with early retirement intentions (von Bonsdorff, 2009) in that older age predicts more frequent early retirement intentions, whereas higher education and better work ability are associated with fewer retirement intentions. Age, gender and education are associated with turnover intention in that younger age, being male and having higher education increases intentions of occupational turnover (Flinkman et al., 2010). Furthermore, those nurses who had experienced burnout were more likely to want to leave the profession (Flinkman et al., 2010). Odds ratios (OR) along with 95% confidence intervals (CI) and p -significance levels are presented in Table 3. All tests were performed using IBM SPSS Statistics 20.0 (IBM, Inc.) with a significance level of $p < 0.05$.

4 Results

Means and standard deviations or percentages and bivariate correlations of the study variables are presented in Table 1. Age correlated negatively with occupational and organisational turnover intentions and positively with early retirement intentions. Occupational and organisational work experience correlated negatively with organisational turnover and positively with early retirement intentions. Work ability was negatively correlated with occupational turnover and early retirement intentions. On average, nurses' perceived development opportunities (mean = 3.46) were higher than reward satisfaction (mean = 2.1). Perceived development opportunities and reward satisfaction correlated negatively with both forms of turnover intentions. Furthermore, reward satisfaction correlated negatively with early retirement intentions.

Table 3 Logistic regression analysis for nurses' intentions of occupational turnover, organisational turnover, and early retirement

Variables	Occupational turnover intentions		Organisational turnover intentions		Early retirement intentions	
	OR	95% CI	OR	95% CI	OR	95% CI
Gender (women)	0.424**	(0.230–0.781)	1.037	(0.496–2.170)	0.784	(0.445–1.379)
Education (bachelor's dg or higher)	1.144	(0.672–1.946)	1.191	(0.646–2.195)	0.519**	(0.320–0.842)
Division of care (psychiatric)	0.725	(0.410–1.283)	1.038	(0.543–1.983)	0.712	(0.432–1.172)
Form of employment (permanent)	1.098	(0.567–2.127)	0.434*	(0.206–0.915)	1.087	(0.589–2.007)
Age (years)	0.943**	(0.905–0.983)	0.994	(0.952–1.038)	1.004	(0.970–1.039)
Occupational tenure (years)	1.002	(0.956–1.050)	1.005	(0.952–1.062)	1.015	(0.977–1.055)
Organisational tenure (years)	0.996	(0.949–1.045)	0.956	(0.903–1.012)	1.030	(0.989–1.073)
Work ability	0.679***	(0.559–0.825)	0.884	(0.717–1.090)	0.836*	(0.702–0.997)
Perceived development opportunities	0.655	(0.412–1.040)	0.328***	(0.185–0.581)	1.530*	(1.016–2.305)
Reward satisfaction	0.391***	(0.250–0.611)	0.732	(0.446–1.201)	0.688*	(0.477–0.994)
Chi-square	$\chi^2 (10) = 79.049***$		$\chi^2 (10) = 53.309***$		$\chi^2 (10) = 58.864***$	
Cox and Snell R ²	0.161		0.111		0.122	
Nagelkerke R ²	0.227		0.183		0.163	
N	450		451		452	

Notes: OR = odds ratio, CI = confidence interval, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The results demonstrated that 30% of the nurses had frequently (every day, few times a week or few times a month) thought of leaving the profession (Table 2). Nearly one-fifth of the nurses often thought about seeking a job in another hospital. Younger nurses had more frequent occupational ($\chi^2 = 17.515$, $df = 3$, $p = 0.001$) and organisational turnover intentions ($\chi^2 = 9.398$, $df = 3$, $p = 0.024$) than older nurses. Almost half of the respondents (48%) agreed completely or to some extent with the statement, 'I will retire as soon as possible', and 75% of the oldest nurses (over 55) agreed (completely or to some extent) with the statement. The relationship between age groups and early retirement intentions was statistically significant ($\chi^2 = 24.330$, $df = 3$, $p = 0.001$).

The results of the logistic regression analyses for occupational and organisational turnover intentions and early retirement intentions are presented in Table 3. The predictive power of the independent variables is indicated in terms of multivariate OR and 95% CI. Background variables (age, gender, occupational education, type of employment, unit of care, and work experience in current organisation and profession) were taken into the analysis in all models.

Our first hypothesis regarding the role of perceived development opportunities was only partly supported in that development opportunities perceived as good decreased the odds of organisational turnover intentions (OR = 0.33, 95% = 0.19 to 0.58). However, a positive association between perceived development opportunities and occupational turnover intentions was not supported and contrary to our first hypothesis, perceived development opportunities increased the odds of early retirement intentions (OR = 1.53, 95% = 1.02 to 2.31).

Our second hypotheses concerned the negative association between reward satisfaction and turnover and early retirement intentions. This hypotheses was also partly supported in that higher satisfaction with rewards decreased the odds for intentions of occupational turnover (OR = 0.39, 95% CI = 0.25 to 0.61) and the odds for early retirement intentions (OR = 0.69, 95% CI = 0.48-0.99). However, reward satisfaction was not statistically significantly associated with organisational turnover intentions.

Our third hypothesis, concerning the negative association between better work ability and turnover and early retirement intentions, was also partly supported. Better work ability decreased the odds for occupational turnover intentions (OR = 0.68, 95% CI = 0.56 to 0.83) and the odds for early retirement intentions (OR = 0.84, 95% CI = 0.70 to 0.99). However, contrary to the third hypothesis, better work ability did not decrease the odds for organisational turnover.

In logistic regression analysis, no actual percentage of the variance a model accounts for is reported, although some approximation measures are widely used. In these models, R-squared estimates (Nagelkerke R^2) varied between 0.23 and 0.16.

5 Discussion

5.1 Theoretical contributions

This study set out to explore the multifaceted problem concerning the nursing shortage by focusing on two developmental HRM areas, the significance of perceived development opportunities and reward satisfaction for retaining ageing and younger nurses in their organisation. Based on our theoretical review, we argue that different views exist regarding how employees' perceptions about the HRM practices used in the organisation

influence their job withdrawal intentions. In addition, there is some controversy as to whether different forms of job withdrawal intentions have similar antecedents.

The results of this study demonstrated that turnover intentions were relatively common among the studied nurses. Almost 30% of the studied nurses had frequently thought about leaving the profession, which is in line with earlier Finnish studies (Flinkman et al., 2008, 2010). Almost 20% of the nurses had considered changing their job and nearly half of the respondents had thought about retiring as soon as possible. This was in line with a recent study, which demonstrated that approximately 50% of Finnish nurses considered organisational turnover (Aiken et al., 2012). Previous Finnish studies have demonstrated that 30% of Finnish nurses felt that they would not be able to do their job until retirement age for health reasons (Laine et al., 2011). Current results supported previous studies (Camerino et al., 2008) in terms of the age-dependant nature of job withdrawal intentions, as younger nurses reported more often occupational and organisational turnover intentions, whereas older nurses had more frequently early retirement intentions.

Based on previous studies which have identified opportunities for continuous development and reward satisfaction as potential factors for the retention of both ageing and younger nurses (Currall et al., 2005; Flinkman et al., 2010; Hayes et al., 2006; Miceli et al., 1991), three hypotheses were tested. Current findings indicate that development opportunities perceived as good decreased the odds for organisational turnover intentions, which are in line with previous studies (Lavoie-Tremblay et al., 2010; Hayes et al., 2006). However, contrary to previous studies concerning nurses' occupational turnover (Flinkman, 2014; Flinkman et al., 2008; Hasselhorn et al., 2005), and to our first hypothesis, good development opportunities were not related to nurses' occupational turnover intentions.

Contrary to our first hypothesis, current results demonstrated that development opportunities perceived as good slightly increased the odds for considering early retirement. Different factors explaining this finding may be found. First, it can be that developmental HRM practices play less important role for the retention among older employees compared to younger ones (Kooij et al., 2010). Second, nursing as a profession often requires continuous learning and the ability to keep up with technological changes, but it allows few possibilities for vertical or hierarchical career advancement. Therefore, older nurses may perceive the obligation for continuous development as a burden (Blakeley and Ribeiro, 2008), which subsequently increases their willingness to retire early. In addition, Della Torre (2012) has pointed out that when employees are given greater autonomy and responsibility over their work, they may perceive greater intrinsic rewards from their work, but they may also suffer from the intensive work rhythm and responsibilities. In the future, there is a need to study more thoroughly how the different areas of development opportunities are related to nurses' early retirement intentions.

The second hypothesis was partly supported, as rewards satisfaction, which comprised both financial and non-financial rewards, was negatively associated with occupational turnover intentions and early retirement intentions. This finding is consistent with several previous studies, where dissatisfaction with pay was associated with younger nurses' occupational turnover (Flinkman et al., 2008, 2010; Fochsen et al., 2005) and older nurses' early retirement intentions (Currall et al., 2005; Miceli et al., 1991; von Bonsdorff, 2009; Zappalà et al., 2008). While these studies mainly concerned

satisfaction with the level of pay, the current study took a broader perspective on rewards satisfaction by including non-financial rewards in the rewards scale. Therefore, current findings also supported previous research indicating that elements such as how pay rises are determined, recognition, opportunities for personal growth, etc., are significant in keeping employees working longer (Hasselhorn et al., 2005; Minnick, 2000; Van Dalen and Henkens, 2002). Contrary to our hypothesis, reward satisfaction was not statistically significantly associated with organisational turnover in the current study.

The third hypothesis was also partly supported, as good perceived work ability decreased the odds for occupational turnover and early retirement intentions. This is in line with several previous studies, that have indicated work ability be associated with early retirement intentions (von Bonsdorff, 2009), as well as sickness absences (Ahlström et al., 2010). Contrary to our hypothesis, work ability was not associated with nurses' organisational turnover intentions.

Finally, this study partly supported the notion that different forms of job withdrawal intentions may share similar antecedents (Hanish and Hulin, 1990, 1991). Based on the study results, it seems that the odds for both occupational turnover and early retirement were increased by dissatisfaction for rewarding and weak work ability. Both occupational turnover and early retirement intentions mean abandoning the nursing profession, whereas organisational turnover means leaving the current work organisation but continuing practicing the nursing profession. However, it would be too simplistic to view the different forms of job withdrawal intentions similarly (Adams and Beehr, 1998). Therefore, the theoretical implication is that the antecedents of different forms of job withdrawal intentions should be analysed in more detail in the future.

5.2 *Practical implications*

Because work in public healthcare organisations is labour-intensive, there are limited options to respond to the current nursing shortage. Given Finland's distant location and unique language, recruiting nurses from overseas may not be the only option for addressing the nursing shortage; rather, effort needs to be put towards retaining current nurses. In practice, this means reducing different forms of job withdrawal among existing staff. In line with previous studies (for example, Flinkman, 2014), this study demonstrated that job withdrawal intentions were age-dependent: the youngest nurses considered occupational turnover most often, organisational turnover intentions were most prevalent among middle-aged employees and early retirement were more common among ageing employees. This implies that there is a need to understand the risks for different forms of job withdrawal over the course of nurses' careers.

The job withdrawal literature has stressed that a long consideration process usually precedes the decision to leave a profession (Flinkman, 2014) and retire early (Beehr, 1986). Therefore, supervisors need to communicate with their subordinates regularly in order to identify early on those nurses who are at risk for withdrawing from their job or profession. In addition, sensitivity is required from supervisors to recognise the differences in subordinates' work abilities and to find ways to enable employees to adjust their work according to their skills and abilities. There is also a need to understand the common antecedents of different forms of job withdrawal intentions. For example, improving nurses' work ability and reward satisfaction can lessen nurses' intentions for both occupational turnover and early retirement.

When it comes to providing adequate development opportunities, the implications are more complex. The results indicate that good development opportunities can lessen organisational turnover, which particularly concerned employees aged 45 years and under. However, at the same time, good development opportunities slightly enhanced the risk for early retirement. Therefore, there is a need to elaborate more thoroughly how the investments for development should be tailored for different aged nurses in the future. In addition, it should be ensured that older nurses do not feel pressure for continuous development. For example, the study of Lavoie-Tremblay et al. (2006) demonstrated that older nurses saw training and development as important incentives for the retention, but these practices should not increase the actual workload of nurses.

From a social exchange perspective, training and development as well as rewarding policies and practices are both areas of HRM which influence employees' attachment to their organisation (Armstrong-Stassen and Ursel, 2009). In other words, employees evaluate their effort at work against rewards from the work, both monetary and non-monetary. This reciprocal relationship between employee and organisation may also be connected to the societal level. For example, public healthcare organisations have limited resources to improve nurses' pay satisfaction. Improving financial incentives for the retention of nursing in public healthcare organisations requires governmental actions as well as bargaining power from the trade unions (Blakeley and Ribeiro, 2008). Therefore, there is a need to understand the interrelatedness of the individual, organisational and societal levels in order to tackle the nursing shortage. Finally, based on the current results, perceived HRM practices seem to play different roles in different forms of job withdrawal. For instance, in early retirement intentions, the complicated relationship between development opportunities may reflect the possible pressures of continuous development. It is also likely, that the personal context, for example family roles and responsibilities, may play a significant role in terms of retirement intentions (Loretto and Vickerstaff, 2013).

5.3 Limitations and future direction

The study population consisted of registered nurses and other nursing personnel working in one Finnish university hospital. Therefore, the results can only be generalised to a limited extent. First, public hospitals in Finland are traditionally hierarchical organisations where the work tasks and duties are usually strictly defined (Ruoholinna, 2009), thus limiting nurses' upward career development and pay progress. Second, Finnish nurses perceive the job both physically and mentally demanding (Laine et al., 2011), and their possibilities to influence it as rather limited (Hasselhorn et al., 2005; Laine et al., 2011). These contextual factors are likely to influence the job withdrawal intentions of Finnish nurses.

There are also other limitations which need to be taken into account when interpreting the results. First, as the data were reported by the respondents, so some self-reported bias might have influenced the results. Notably, the cross-sectional nature of the study made it impossible to establish the causality of the studied variables. Based on the theoretical framework and previous studies, we assumed that employees' perceptions of HRM practices influence their job withdrawal intentions. But, reversed causality is also possible. For example, nurses who have frequent intentions towards organisational turnover may perceive their development opportunities to be worse than those who are

more attached to their organisation (Kooij et al., 2010). Therefore, a longitudinal study setting is required to confirm the causal nature of the analysed variables.

In this study, we focused on the traditional HRM practices. Therefore, novel HRM practices designed for retention should be considered in future studies. Furthermore, this study was centred on nurses' perceptions of the HRM practices used in their organisation; thus, an organisation-level study focusing on actual HRM practices is also needed.

In addition, the self-developed scales measuring job withdrawal intentions and perceived development opportunities need to be further tested. In this study, health was studied only in terms of respondents' perceived work ability, and therefore, health-related reasons should be analysed in more detail in the future. Finally, further studies are needed to study the possible interrelatedness of job withdrawal and work withdrawal (Hanish and Hulin, 1990, 1991). One potential avenue for future studies is also to analyse the collective level of job withdrawal intentions. For example, recent retirement studies indicate that the decision for early retirement is made in the domestic context (Loretto and Vickerstaff, 2013), whereas studies on work withdrawal behaviour have demonstrated that 'absence cultures' operate at a collective level (Johns, 2010).

Acknowledgements

The authors thank the Academy of Finland (grant number 104525) and for support in collecting the data. M.E.v.B. has been funded by the Academy of Finland (grant number 250681). S.K. has been funded by the Finnish Pension Alliance (TELA).

References

- Aaltio, I., Salminen, H. and Koponen, S. (2014) 'Ageing employees and human resource management – evidence of gender-sensitivity?', *Equality, Diversity and Inclusion: An International Journal*, Vol. 33, No. 2, pp.160–176.
- Adams, G.A. and Beehr, T.A. (1998) 'Turnover and retirement: a comparison of their similarities and differences', *Personnel Psychology*, Vol. 51, No. 3, pp.643–665.
- Adult Education Survey (2006) *Statistics Finland* [online] http://www.stat.fi/til/aku/2006/01/aku_2006_01_2008-06-3_kat_003_fi.html (accessed 17 April 2011).
- Ahlström, L., Grimby-Ekman, A., Hagberg, M. and Dellve, L. (2010) 'The work ability index and single-item question: associations with sick leave, symptoms, and health – a prospective study of women on long term sick leave', *Scandinavian Journal of Work and Environmental Health*, Vol. 36, No. 5, pp.404–412.
- Aiken, L.H., Sermeus, W., Van den Heede, K., Sloane, D.M., Busse, R., McKee, M., Bruyneel, L., Rafferty, A.M., Griffiths, P., Moreno-Casbas, M.T., Tishelman, C., Scott, A., Brzostek, T., Kinnunen, J., Schwendimann, R., Heinen, M., Zikos, D., Strømseng Sjetne, I., Smith, H.L. and Kutney-Lee, A. (2012) 'Patient safety, satisfaction and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and in the United States', *British Medical Journal*, Vol. 344, p.e1717, DOI: 10.1136/bmj.e1717.
- Armstrong, M. (1999) *Employee Reward*, 2nd ed., IPD House, London.
- Armstrong-Stassen, M. and Cameron, S.J. (2005) 'Concerns, satisfaction, and retention of Canadian community health nurses', *Journal of Community Health Nursing*, Vol. 22, No. 4, pp.181–194.

- Armstrong-Stassen, M. and Cattaneo, J. (2010) 'The effect of downsizing on organizational practices targeting older workers', *Journal of Management Development*, Vol. 29, No. 4, pp.344–363.
- Armstrong-Stassen, M. and Schlosser, F. (2010) 'When hospitals provide HR practices tailored to older nurses, will older nurses stay? It may depend on their supervisor', *Human Resource Management Journal*, Vol. 20, No. 4, pp.375–390.
- Armstrong-Stassen, M. and Templer, A. (2005) 'Adapting training for older employees. The Canadian response to an ageing workforce', *Journal of Management Development*, Vol. 24, No. 1, pp.57–67.
- Armstrong-Stassen, M. and Ursel, N.D. (2009) 'Perceived organisational support, career satisfaction, and the retention of older workers', *Journal of Occupational and Organisational Psychology*, Vol. 82, No. 1, pp.201–220.
- Attree, M., Flinkman, M., Howley, B., Lakanmaa, R-L., Lima-Basto, M. and Uhrenfeldt, L. (2011) 'A review of nursing workforce policies in five European countries: Denmark, Finland, Ireland, Portugal and United Kingdom/England', *Journal of Nursing Management*, Vol. 19, No. 6, pp.786–802.
- Badger, F. and Werrett, J. (2005) 'Room for improvement? Reporting response rates and recruitment in nursing research in the past decade', *Journal of Advanced Nursing*, Vol. 51, No. 5, pp.502–510.
- Beehr, T.A. (1986) 'The process of retirement: a review and recommendations for future investigation', *Personnel Psychology*, Vol. 39, No. 1, pp.31–55.
- Beehr, T.A., Glazer, S., Nielson, N.L. and Farmer, S.J. (2000) 'Work and nonwork predictors of employees' retirement ages', *Journal of Vocational Behavior*, Vol. 57, No. 2, pp.206–225.
- Blakeley, J.A. and Ribeiro, V.E.S. (2008) 'Early retirement among registered nurses: contributing factors', *Journal of Nursing Management*, Vol. 16, No. 1, pp.29–37.
- Brough, P., Johnson, G., Drummond, S. and Timms, C. (2011) 'Comparisons of cognitive ability and job attitudes of older and younger workers', *Equality Diversity and Inclusion: An International Journal*, Vol. 30, No. 2, pp.105–126.
- Buchan, J., O'May, F. and Dussault, G. (2013) 'Nursing workforce policy and the economic crisis: a global overview', *Journal of Nursing Scholarship*, Vol. 45, No. 3, pp.298–307.
- Buyens, D., Van Dijk, H., Dewilde, T. and De Vos, A. (2009) 'The ageing workforce: perceptions of career ending', *Journal of Managerial Psychology*, Vol. 24, No. 2, pp.102–117.
- Camerino, D., Conway, P.M., van der Heijden, B.I.J.M., Estryn-Behar, M., Costa, G. and Hasselhorn, H-M. (2008) 'Age-dependent relationships between work ability, thinking of quitting the job, and actual leaving among Italian nurses: a longitudinal study', *International Journal of Nursing Studies*, Vol. 45, No. 11, pp.1645–1659.
- Conway, E. (2004) 'Relating career stage to attitudes towards HR practices and commitment: evidence of interaction effects?', *European Journal of Work and Organisational Psychology*, Vol. 13, No. 4, pp.417–446.
- Currall, S.C., Towler, A.J., Judge, T.A. and Kohn, L. (2005) 'Pay satisfaction and organizational outcomes', *Personnel Psychology*, Vol. 58, No. 3, pp.613–640.
- Della Torre, E. (2012) 'High performance work systems and workers' well-being: a sceptical view', *Int. J. Work Innovation*, Vol. 1, No. 1, pp.7–23.
- Finegold, D., Mohrman, S. and Spreitzer, G. (2002) 'Age effects on the predictors of technical workers' commitment and willingness to turnover', *Journal of Organisational Behavior*, Vol. 23, No. 5, pp.655–674.
- Finnish Center for Pensions (2014) *Statistical Year Book of Pensioners in Finland (2013)* [online] http://www.etk.fi/fi/gateway/PTARGS_0_2712_459_440_3034_43/http%3B/content.etk.fi%3B7087/publishedcontent/publish/etkfi/fi/julkaisut/tilastojulkaisut/tilastovuosikirjat/tilasto_suomen_elakkeensaajista_2013_7.pdf (accessed 6 October 2015).

- Fishbein, M. and Ajzen, I. (1975) *Belief, Attitude, Intention, and Behaviour*, Addison, Wesley, Reading, MA.
- Flinkman, M. (2014) *Young Registered Nurses' Intent to Leave the Profession in Finland – A Mixed-Method Study*, Annales Universitatis Turkuensis D 1107, Turku.
- Flinkman, M., Laine, M., Leino-Kilpi, H., Hasselhorn, H.-M. and Salanterä, S. (2008) 'Explaining young registered Finnish nurses' intention to leave the profession: a questionnaire survey', *International Journal of Nursing Studies*, Vol. 45, No. 5, pp.727–739.
- Flinkman, M., Leino-Kilpi, H. and Salanterä, S. (2010) 'Nurses' intention to leave the profession: integrative review', *Journal of Advanced Nursing*, Vol. 66, No. 7, pp.1422–1434.
- Fochsen, G., Sjögren, K., Josephson, M. and Lagerström, M. (2005) 'Factors contributing to the decision to leave nursing care: a study among Swedish nursing personnel', *Journal of Nursing Management*, Vol. 13, No. 4, pp.338–344.
- Halme, P. (2011) 'Iästä johtamiseen: ikäjohtaminen ja eri-ikäisyys johtajuuden tutkimuskohteena. [From age to management: age management and different aged employees as a focus of the research]', *Jyväskylä Studies in Business and Economics*, Vol. 105, University of Jyväskylä, Jyväskylä.
- Hanisch, K.A. and Hulin, C.L. (1990) 'Job attitudes and organisational withdrawal: an examination of retirement and other withdrawal behaviors', *Journal of Vocational Behavior*, Vol. 37, No. 1, pp.60–78.
- Hanisch, K.A. and Hulin, C.L. (1991) 'General attitudes and organisational withdrawal: an evaluation of a causal model', *Journal of Vocational Behavior*, Vol. 39, No. 1, pp.110–128.
- Harkonmäki, K., Martikainen, P., Lahelma, E., Pitkaniemi, J., Halmeenmäki, T., Silventoinen, K., and Rahkonen, O. (2009) 'Intentions to retire, life dissatisfaction and the subsequent risk of disability retirement', *Scandinavian Journal of Public Health*, Vol. 37, No. 3, pp.252–259.
- Hasselhorn, H.-M., Müller, B.H. and Tackenberg, P. (2005) *NEXT Scientific Report July 2005*, University of Wuppertal and NEXT-Study Coordination [online]
<http://www.next.uni-wuppertal.de/EN/index.php?articles-and-reports>
(accessed 15 March 2013).
- Hayes, L.J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., Spence Laschinger, H.K., North, N. and Stone, P.W. (2006) 'Nurse turnover: a literature review', *International Journal of Nursing Studies*, Vol. 43, No. 2, pp.237–263.
- Health Care in Finland (2013) *Ministry of Social Affairs and Health*, Brochure 2eng [online]
http://www.stm.fi/c/document_library/get_file?folderId=6511570&name=DLFE-26813.pdf
(accessed 10 October 2014).
- Heilmann, P. (2010) 'To have and to hold: personnel shortage in a Finnish healthcare organisation', *Scandinavian Journal of Public Health*, Vol. 38, No. 5, pp.518–523.
- Heneman, H.G. and Schwab, D.P. (1985) 'Pay satisfaction: its multidimensional nature and measurement', *International Journal of Psychology*, Vol. 20, No. 2, pp.129–141.
- Heneman, R.L., Greenber, D.B. and Fox, J.A. (2002) 'Pay increase satisfaction: a reconceptualization of pay raise satisfaction based on changes in work and pay practices', *Human Resource Management Review*, Vol. 12, No. 1, pp.63–74.
- Herrbach, O., Mignonac, K., Vandenberghe, C. and Negrini, A. (2009) 'Perceived HRM practices, organizational commitment and voluntary early retirement among late-career managers', *Human Resource Management*, Vol. 48, No. 6, pp.895–915.
- Ilmarinen, J. (2006) *Towards a Longer Worklife – Ageing and the Quality of Worklife in the European Union*, Finnish Institute of Occupational Health, Helsinki.
- Ilmarinen, J., Tuomi, K. and Seitsamo, J. (2005) *New Dimensions of Work Ability*, International Congress Series 1280, pp.3–7.
- Järnefelt, N. (2010) *Education and Longer Working Lives. A Longitudinal Study on Education Differences in the Late Exit from Working Life of Older Employees in Finland*, Finnish Centre for Pensions, Studies 2010:1, Helsinki.

- Johns, G. (2010) 'Presenteeism in the workplace: a review and research agenda', *Journal of Organizational Behavior*, Vol. 31, No. 4, pp.519–542.
- Julkunen, R. and Pärnänen, A. (2005) *Uusi Ikäsopimus*, [New Age Deal], SoPhi, Jyväskylä.
- Kannisto, J. (2014) *Eläkkeellä ja työssä: tilastoraportti eläkeläisten työnteosta vuosina 2007–2012*, Eläketurvakeskuksen tilastoraportteja, June 2014 [online] http://www.etk.fi/fi/service/julkaisut/440/julkaisut?contentPath=fi/julkaisut/tilastojulkaisut/tilastoraportit/elakkeella_ja_tyossa_2012 (accessed 8 October 2014).
- Kooij, D.T.A.M., Jansen, P.G.W., Dikkers, J.S.E. and de Lange, A.H. (2010) 'The influence of age on the associations between HR practices and both affective commitment and job satisfaction', *Journal of Organisational Behavior*, Vol. 31, No. 8, pp.1111–1136.
- Kunze, F., Boehm, S. and Bruch, H. (2011) 'Age diversity, age discrimination climate and performance consequences: a cross organizational study', *Journal of Organizational Behavior*, Vol. 32, No. 2, pp.264–290.
- Laine M., Kokkinen K., Kaarlela-Tuomaala A., Valtanen E., Elovainio M., Keinänen M. and Suomi, R. (2011) *Sosiaali- ja terveysalan työolot 2010*, [The Working Conditions and Well-being of Social and Healthcare Staff 2010], Finnish Institute of Occupational Health, Helsinki.
- Lavoie-Tremblay, M., O'Brien-Pallas, L., Viens, C., Brabant, L.H. and Gélinas, C. (2006) 'Towards an integrated approach for management of ageing nurses', *Journal of Nursing Management*, Vol. 14, No. 3, pp.207–212.
- Lavoie-Tremblay, M., Paquet, M., Duchesne, M-A., Santo, A., Gavrancic, A., Courcy, F. and Gagnon, S. (2010) 'Retaining nurses and other hospital workers: an intergenerational perspective of the work climate', *Journal of Nursing Scholarship*, Vol. 42, No. 4, pp.414–422.
- Lazazzara, A. and Bombelli, M.C. (2011) 'HRM practices for an ageing Italian workforce: the role of training', *Journal of European Industrial Training*, Vol. 35, No. 8, pp.808–825.
- Lehto, A-M. and Järnefelt, N. (Eds.) (2000) *Jaksaen ja joustaa. Artikkeleita työolotutkimuksesta*, [Managing and Bending. Essays of the Working Conditions], Statistics Finland, Helsinki.
- Lehto, A-M. and Sutela, H. (2004) *Uhkia ja mahdollisuuksia. Työolotutkimusten tuloksia 1977–2003*, [Threats and Opportunities. Studies of the Working Conditions 1977–2003], Statistics Finland, Helsinki.
- Lehto, A-M. and Sutela, H. (2008) *Työolojen kolme vuosikymmentä. Työolotutkimusten tuloksia 1977–2008*, [Three Decades of Working Conditions. Studies of the Working Conditions 1977–2008], Statistics Finland, Helsinki.
- Loretto, W. and Vickerstaff, S. (2013) 'The domestic and gendered context for retirement', *Human Relations*, Vol. 66, No. 1, pp.65–86.
- Lum, L., Kervin, J., Clark, K., Reid, F. and Sirola, W. (1998) 'Explaining nursing turnover intent: job satisfaction, pay satisfaction, or organizational commitment?', *Journal of Organisational Behavior*, Vol. 19, No. 3, pp.305–320.
- Miceli, M.P., Jung, I., Near, J.P. and Greenberg, D.B. (1991) 'Predictors and outcomes of reactions to pay-for-performance plans', *Journal of Applied Psychology*, Vol. 76, No. 4, pp.508–521.
- Minnick, A.F. (2000) 'Retirement, the nursing workforce, and the Year 2005', *Nursing Outlook*, Vol. 48, No. 5, pp.211–217.
- OECD (2014) *Health at a Glance: Europe 2014*, OECD Publishing, DOI: 10.1787/health_glance_eur-2014-en (accessed 28 April 2015).
- Pärnänen, A. (2011) *Organisaatioiden ikäpolitiikat: strategiat, instituutiot ja moraali*, [Organisations Age Policies: Strategies, Institutions and Moral], Tilastokeskus tutkimuksia 255, Statistics Finland, Helsinki.
- Parry, E. and Tyson, S. (2009) 'Organizational reactions to UK age discrimination legislation', *Employee Relations*, Vol. 31, No. 5, pp.471–488.

- Ruoholinna, T. (2009) *Ikääntyvät työelämässä. Päihittääkö nuoruus ja koulutus aikuisuuden ja kokemuksen?*, [Ageing Employees in Working Life. Do the Youth and Education Outdo Maturity and Experience?], University of Turku, Turku.
- Salminen, H. (2012) 'The significance of perceived development opportunities in the context of retention: comparing ageing and younger nurses', *Jyväskylä Studies in Business and Economics*, Vol. 188, University of Jyväskylä, Jyväskylä.
- Schlosser, F., Zinni, D. and Armstrong-Stassen, M. (2011) 'Intention to unretired. HR and the boomerang effect', *Career Development International*, Vol. 17, No. 2, pp.149–167.
- Schuler, R.S. and Jackson, S.E. (1996) *Human Resource Management: Positioning for the 21st Century*, 6th ed., West Publishing Company, New York.
- Shultz, K.S. (2003) 'Bridge employment: work after retirement', in Adams, G.A. and Beehr, T.A. (Eds.): *Retirement: Reasons, Processes and Results*, pp.214–241, Springer, New York, NY.
- Tempest, S., Barnatt, C. and Coupland, C. (2002) 'Grey advantage – new strategies for the old', *Long Range Planning*, Vol. 35, No. 5, pp.475–492.
- Tikkanen, T., Lahn, L.C., Withnall, A., Ward, P. and Lyng, K. (2002) *Working Life Changes and Training of Older Workers*, IV Framework Programme, European Commission, Trondheim.
- Tuomi, K. and Vanhala, S. (Eds.) (2002) *Yrityksen toiminta, menestyminen ja henkilöstön hyvinvointi*, [Firm's Performance, Success and Well-being of the Personnel. A Follow-up Study in the Metal Industry and in the Retail Sector], Helsinki School of Business and Economics, Helsinki.
- Tuomi, K., Ilmarinen, J., Jahkola, A., Katajarinne, L. and Tulkki, A. (2002) *Work Ability Index*, 2nd ed., Occupational Health Care No. 19, Finnish Institute of Occupational Health, Helsinki.
- Van Dalen, H.P. and Henkens, K. (2002) 'Early-retirement reform: can it and will it work?', *Ageing and Society*, Vol. 22, No. 2, pp.209–231.
- von Bonsdorff, M.E. (2009) 'Intentions of early retirement and continuing work among middle-aged and older employees', *Jyväskylä Studies in Business and Economics*, Vol. 83, University of Jyväskylä, Jyväskylä.
- von Bonsdorff, M.E., Vanhala S., Seitsamo, J., Janhonen, M. and Husman, P. (2010) 'Employee well-being, early retirement intentions, and company performance', *Journal of Occupational and Environmental Medicine*, Vol. 52, No. 12, pp.1255–1261.
- Walker, A. (2005) 'The emergence of age management in Europe', *International Journal of Organisational Behaviour*, Vol. 10, No. 1, pp.685–697.
- Williams, C. (2010) 'Understanding the essential elements of work-based learning and its relevance to everyday clinical practice', *Journal of Nursing Management*, Vol. 18, No. 6, pp.624–632.
- Zappalà, S., Depolo, M., Fraccaroli, F., Guglielmi, D. and Sarchielli, G. (2008) 'Postponing job retirement? Psychological influences on the preference for early or late retirement', *Career Development International*, Vol. 13, No. 2, pp.150–167.

Appendix

Perceived development opportunities scale

- 1 Opportunity to receive training that promotes professional competencies.
- 2 Opportunity to participate during working time in training provided by the employer.
- 3 Opportunity to develop one's professional competencies.
- 4 Opportunity to learn new things.
- 5 Opportunity to get guidance related to the work.

- 6 Opportunity to use knowledge and skills gained through professional training.
- 7 Opportunity to use knowledge and skills gained through work experience.
- 8 Opportunity to choose own working methods and develop those.
- 9 Opportunity for career progress.
- 10 Opportunity to move from work assignment to another work task that is at the same level.
- 11 Opportunity to progress to more challenging work tasks.

Reward satisfaction scale

- 1 I am satisfied with my take-home pay.
- 2 I am satisfied with my current salary.
- 3 I am satisfied with the size of my task-based pay.
- 4 I am satisfied with the size of my individual pay.
- 5 I am satisfied with my wage trend.
- 6 I am satisfied with my pay increase amount.
- 7 I am satisfied with the pay increase opportunities.
- 8 I am satisfied with the pay increase requirements.
- 9 I am satisfied with the personal control I have over my pay increase.
- 10 I am satisfied with the pay increase rules.
- 11 I am satisfied with appreciation my supervisor shows towards my work.
- 12 I am satisfied with the constancy of my work.
- 13 I am satisfied with the development opportunities I have in my work.
- 14 I am satisfied with the possibilities to contribute to my work.
- 15 I am satisfied with the possibilities to contribute to my work.
- 16 I am satisfied with the information the hospital gives about pay issues concerning me.
- 17 I am satisfied with the consistency of the hospitals pay policies.
- 18 I am satisfied with the consistency of the hospitals pay policies.