

Original Article

Psychosocial Factors at Work after the Implementation of Kinaesthetics in Elderly Care

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Abstract

Background: Research on employee satisfaction and rehabilitation care practice models in elderly care is scarce, and no previous studies exist regarding the effects of implementation of Kinaesthetics on psychosocial factors at work.

Aim: This study aimed to describe job satisfaction among employees in elderly care after implementation of Kinaesthetics as a patient mobility support model in rehabilitation care. The target organisation was a joint collaboration area of four municipalities in Finland.

Methodology: A descriptive cross-sectional design was used. The data were part of a larger occupational wellbeing survey, the Hospital Personnel Study. Psychosocial factors at work, including job characteristics, team climate and organisational justice, among elderly care staff were examined in 2012 (N=336), 2014 (N=326) and 2017 (N=370). At the end of 2012, a development project was implemented and during 2013 all employees of geriatric wards underwent basic training in Kinaesthetics. The geriatric ward employees were compared with employees in home care and nursing home in the same organisation.

Results: In general, job satisfaction was rather good in all units, and the differences between the units were minor regardless of statistical significance. The change was different between the units only regarding relational justice. Between the baseline and the first follow-up measurement, relational justice improved in all work units, and improvement was more pronounced in geriatric wards where Kinaesthetics was implemented than in other elderly care units. Innovation increased among geriatric ward staff, but not statistically significantly.

Conclusion: The study indicated that the implementation of Kinaesthetics seems to effect relational justice positively in elderly care. The implementation of Kinaesthetics possibly gave managers an opportunity to maintain a presence in everyday work. During the study, a nation-wide health and social services reform was being prepared and a larger scale effect of the intervention may have been overridden by other changes in the organisation.

Keywords: Elderly care, job satisfaction, psychosocial factors at work, Kinaesthetics, rehabilitation care practice model

Introduction

Psychosocial factors at work have been studied extensively, but little research exists on employee satisfaction in elderly care and the relationship between the rehabilitation care practice model and employee satisfaction. The results of previous studies indicate that models that promote client rehabilitation seem to improve employee job satisfaction, reduce staff turnover and increase the attraction of elderly care. (Stanmore, Ormrod & Waterman 2006; Resnic et al., 2009b; Vahakangas, 2010). In Finland, one of the key projects of the Ministry of Social Affairs and Health and the Government of Finland is to support older people's functional capacity and opportunities to live at home. Besides promoting older people's functional capacity, the Quality Recommendation to guarantee a good quality of life and improved services for older persons focuses on employee wellbeing and job satisfaction. (Ministry of Social Affairs and Health 2017.)

In the nursing of elderly people, workers are often burdened with unreasonable job demands and have little influence over their work (Rouxel, Michinov & Dodeler, 2016; Elliott, Rodwell & Martin, 2017). Job demands are one of the characteristics of work that is often associated with job satisfaction (Rahnfeld et al., 2016). Job control, another important characteristic, has been found to be a resource for employee wellbeing and job satisfaction (Kubicek, Korunka & Tement, 2014; Rouxel, Michinov & Dodeler, 2016). Job control refers to the employee's ability to influence working conditions and the content of work (Karasek et al., 1998). If employees can do their work well and with high quality and their work is appreciated, they often find it rewarding (Chenoweth, Merlyn & Jeon, 2014).

A well-functioning work team and environment contribute to job satisfaction (Tourangeau et al., 2010; van Beek et al., 2011; Prosen & Piskar, 2015; Paku-Alakbarova et al., 2018). In a well-functioning work team, employees are innovative and enthusiastic (Dackert, 2010). Job satisfaction of those working in elderly care can be improved by providing a supportive environment (Tourangeau et al., 2010, Chenoweth, Merlyn & Jeon, 2014; Schwendimann et al., 2016, Paku-Alakbarova et al., 2018), which is closely associated with positive interaction and collaboration between employees and managers.

(Chenoweth, Merlyn & Jeon, 2014). According to Vahakangas (2010), in management of the rehabilitation care practice model appreciation and encouragement on the part of the manager helps employees act in line with the objectives set. In a workplace where colleagues provide assistance to each other in an atmosphere of trust and reciprocity, with shared values and norms, social capital that promotes fluent and functional work processes is accrued. (Kowalski et al., 2010; Read, 2013). Workplace social capital contributes to an increase in the wellbeing and job satisfaction of nursing staff (Hsu et al., 2011).

In terms of organisational justice, it is important that decision-making within the organisation and treatment of employees are perceived as fair (Rodwell & Munro, 2013). The perception of fairness is affected by characteristics such as the following: the same rules apply to everyone, employees have an opportunity to be heard when decisions concerning them are made, employees are informed about decisions, their impact is monitored, and poor decisions are revised. Relational justice comprises, for example, that managers treat employees with respect and listen to their opinions on issues that matter, and employees can trust them (Moorman, 1991).

In the rehabilitation care practice model, nurses promote the rehabilitation of elderly persons by making their own professional knowledge and skills available to them (Routasalo, Arve & Lauri, 2004a). As a resource-oriented concept for nursing care, Kinaesthetics aims to develop nurses' knowledge and skills in rehabilitation. Kinaesthetics describes and analyses the fundamental nature of human movement competence with regard to human functioning, self-efficacy and health development. Kinaesthetics for nursing was originally developed by Hatch and Maietta in association with nurses in Switzerland, Germany and Austria (Hatch & Maietta, 2003) and developed further by the European Kinaesthetics Association (Enke, Knobel & Marty-Teuber, 2010). Kinaesthetics training is currently provided in an increasing number of European countries.

The purpose of Kinaesthetics training is to improve nurses' own interaction and movement competence, which is an essential prerequisite for supporting older peoples' movement and active participation while assisting them in their daily activities (Suter et al., 2010). The

Kinaesthetics education for nurses comprises continuing education starting with a basic course, followed by an advanced training course and a peer-tutoring course. During the basic course, nurses learn the six Kinaesthetics dimensions and their meaning for care situations. Learning is based on nurses' individual movement experiences, partner experiences (perception of changes in one's own movement while interacting with another human) and using the content learned and experiences gained in practical real-life situations.

Previous studies on Kinaesthetics have focused on the implementation of Kinaesthetics in practical nursing and the effect of Kinaesthetics on the physical burden of nurses (Betchon, Brach & Hantikainen, 2011; Fringer, Huth & Hantikainen, 2014; Fringer, Huth & Hantikainen, 2015; Gattinger et al. 2016). Implementation of Kinaesthetics can bring about positive effects for the staff, such as increased interaction between staff members, as well as reduced perception of burden. (Betchon, Brach & Hantikainen, 2011; Fringer, Huth & Hantikainen, 2015, Stenman et al., 2016). There is little research available on the implementation of Kinaesthetics from the perspective of nurses. That is why more research is needed on the effects of the implementation of Kinaesthetics in the nursing environment, and its impact on employee wellbeing.

The purpose of this study was to describe psychosocial factors at work among employees in elderly care in a joint collaboration area of four municipalities in Finland after implementation of Kinaesthetics as a rehabilitation care practice model. The change in psychosocial factors was analysed between years 2012, 2014 and 2017 and employees in geriatric wards where Kinaesthetics was implemented were compared with the employees working in home care and nursing homes within the same organisation.

Methodology

Study design and participants: The research data were part of a larger occupational wellbeing survey, the Hospital Personnel Study, conducted by the Finnish Institute of Occupational Health. The target organisation was a joint social and health care collaboration area of four municipalities in Finland. The target group consisted of employees in home care, nursing homes and geriatric wards. This study included

cross-sectional surveys from 2012, 2014 and 2017. Response rates in the entire target organisation were 73% (N = 1041) in 2012, 71% (N = 994) in 2014, and 77% (N = 996) in 2017. In this study, all employees and managers working in elderly care were included (N = 336 in 2012, N = 326 in 2014, and N = 370 in 2017).

At the end of 2012, a development project was launched in the target organisation aimed at the implementation of rehabilitation care practice model in elderly care. The aim of the implementation of the care practice model was also to improve employee work satisfaction, and thus increase the attraction of elderly care and reduce staff turnover. In 2013, all employees working in geriatric wards underwent basic training in Kinaesthetics. The basic course consisted of continued learning over a period of 4–6 months. The training included four days of contact teaching, which were divided into two two-day training events, and practical training periods in the employees' own teams. The change in psychosocial factors at work from 2012 to 2017 in geriatric wards that had taken Kinaesthetics into use was compared with home care employees and nursing home employees. In addition, psychosocial factors at work of geriatric ward staff were compared with that of employees of all elderly care units about four years after the implementation of Kinaesthetics.

The Hospital Personnel Study received approval from the Ethics Committees of both the Finnish Institute of Occupational Health and the Hospital District of Helsinki and Uusimaa. Permission to conduct this study was obtained from the chief of the target organisation. The questionnaire was sent both electronically and in paper version. The cover letter gave information about the study and its purpose as well as confidentiality, anonymity and voluntary participation. The participants thus provided an informed consent to take part in the study.

Measures: For this analysis, series of questions focusing on staff perceptions of job characteristics, team climate and organisational justice were chosen. Regarding job characteristics, job demands (3 items) and job control were measured (9 items) with the revised Job Content Questionnaire, which is an abridged version of the original Job Demands/Control Questionnaire (Karasek et al., 1998). According to the model, work is burdensome when job demands are high and employees have low

control. Job effort and job rewards were measured with four questions, one measuring effort and three rewards. According to the Effort Reward Imbalance model, employees experience work stress when there is a mismatch between high workload and low rewards (Siegrist et al., 1996). In addition, the magnitude (1 question) and quality (1 question) of changes in one's own work was measured.

Team climate was measured using the Team Climate Inventory (TCI) developed by Anderson and West (1998). In this study, series of questions from the TCI focusing on help and consideration within the team (4 questions), team innovation (3 questions), task orientation (4 questions) and development (3 questions) were used. Workplace social capital was measured with 8 questions focusing on trust, interaction, shared values and norms between employees and managers, and collaboration between employees (Oksanen, 2009).

In addition, the procedural and relational justice indicator developed by Moorman (1991) was used to measure organisational justice. The indicator explores organisational procedures and procedural justice with seven questions and managers' actions, i.e., relational justice, with six questions. The magnitude (1–7) and quality (-3–+3) of the change was assessed with a 7-step Likert scale. For other indicators, a 5-step Likert scale was used (1–5). The responses were transformed so that a higher value indicated higher level of the measured factor.

The background variables were age, sex, type of job contract (permanent/temporary), duration of job contract in years and occupational status (upper/lower). The upper occupational status included groups such as nurses, charge nurses and managers and the lower comprised practical nurses, home care staff and nurse aides.

Statistical analyses: Statistical analyses were performed using SAS statistical software, version 9.2. Means, standard deviations, frequencies and percentages (%) were used as descriptive statistics. Differences in categorical variables between the units were examined with χ^2 test and in continuous variables with analysis of variance (ANOVA). Main analyses were made using repeated measures linear regression analysis with generalized estimating equations (GEE). Models were testing main effects of time and group and interaction of those variables on work-related

psychosocial factors in geriatric wards, home care and nursing homes in the years 2012, 2014, and 2017.

Results

Demographic characteristics of the respondents: At baseline in 2012 (Table 1), the mean age of the respondents was 49.5 years (SD = 9.4) in geriatric wards, 44.4 years (SD = 12.3) in home care, and 47 years (SD = 11.3) in nursing homes. Upper occupational status and temporary job contracts were more common in the geriatric wards than in home care or nursing homes (Table 1). In 2017 (Table 2), the mean age of the respondents was almost same than 2012.

Work: No interaction of group and time (Table 3) was observed in any of the four variables regarding work, i.e. job demands, job control, efforts, and rewards. A main effect of time was found in all those variables (p -values < .02). From the first to the third measurement, job demands (p < .001) and efforts (p < .01) increased while job control (p < .001) and rewards (p < .0001) decreased. No change was observed in any of the variables between the first and the second measurements. With the exception for efforts, a main effect of group was found in all other variables (p -values < .04), (Table 2). Geriatric wards that started using Kinaesthetics scored higher in job demands (M = 3.86, SE = .07, p < .001) and lower in job control (M = 3.48, SE = .06, p < .0001) than home care.

In 2017 (Table 4), based on the results describing the characteristics of work, those working in home care perceived job control to be good. Job control was stronger in home care (p < 0.01) than in nursing homes or geriatric wards. Employees in geriatric wards that had implemented Kinaesthetics considered work to be more demanding than those working in home care and nursing homes. Job rewards were slightly lower in geriatric wards than in home care or nursing homes. However, these differences were not statistically significant. In all elderly care units, job effort was very high. The employees perceived the changes in work to be smaller in nursing homes as compared to geriatric wards or to home care, where the changes were considered the greatest. The difference was statistically significant (p < 0.001). According to the respondents, the changes were perceived as slightly negative in all groups.

Table 1. Background characteristics at baseline year 2012

		Wards	Home care	Nursing homes
		n = 50	n = 104	n = 182
Response rate				
Age	M (SD)	49.5 (9.4)	44.4 (12.3)	47.0 (11.3)
Gender				
Women	n (%)	49 (98)	103 (99)	180 (99)
Men	n (%)	1 (2)	1 (1)	2 (1)
Type of job contract				
Permanent	n (%)	36 (72)	78 (75)	139 (76)
Temporary	n (%)	14 (28)	26 (25)	43 (24)
Duration of employment (years)	M (SD)	16.3 (10.5)	14.1 (9.8)	12.9 (8.9)
Professional status				
Upper	n (%)	24 (48)	19 (18)	36 (20)
Lower	n (%)	26 (52)	85 (82)	146 (80)

M = Mean, SD = Standard deviation

Table 2. Background characteristics in 2017

		Home care	Nursing homes	Geriatric wards
		n = 136	n = 182	n = 52
Response rate				
Age	M (SD)	45.8 (12.1)	46.5 (12.0)	49.2 (10.9)
Gender				
Female	n (%)	131 (96)	179 (98)	51 (98)
Male	n (%)	5 (4)	3 (2)	1 (2)
Type of contract				
Permanent	n (%)	92 (68)	138 (76)	45 (87)
Temporary	n (%)	44 (32)	44 (24)	7 (13)
Duration of employment relationship (y)	M (SD)	13.6 (10.8)	14.8 (9.8)	17.1 (11.2)
Professional status				
Higher	n (%)	21 (15)	37 (20)	20 (39)
Lower	n (%)	115 (85)	145 (80)	31 (61)

M = Mean, SD = Standard deviation

Table 3. The effects of time and group on work-related psychosocial factors in geriatric wards that started using Kinaesthetics in 2013, and home care and nursing homes in the years 2012, 2014, and 2017

	Geriatric wards			Home care			Nursing homes		
	2012 n = 50 M (SD)	2014 n = 64 M (SD)	2017 n = 52 M (SD)	2012 n= 104 M (SD)	2014 n = 91 M (SD)	2017 n= 136 M (SD)	2012 n = 182 M (SD)	2014 n = 171 M (SD)	2017 n = 182 M (SD)
Work									
Job demands †‡	4.0 (0.7)	3.7 (0.8)	3.9 (0.8)	3.4 (0.9)	3.4 (1.0)	3.8 (0.9)	3.6 (0.9)	3.6 (0.9)	3.8 (0.9)
Job control †‡	3.6 (0.6)	3.4 (0.6)	3.5 (0.5)	3.8 (0.5)	3.8 (0.5)	3.7 (0.5)	3.6 (0.6)	3.6 (0.6)	3.5 (0.6)
Effort †	4.2 (0.7)	4.2 (0.7)	4.4 (0.5)	4.2 (0.6)	4.1 (0.8)	4.3 (0.6)	4.2 (0.7)	4.2 (0.7)	4.3 (0.6)
Reward †‡	3.0 (0.6)	2.9 (0.6)	2.5 (0.7)	3.1 (0.8)	3.1 (0.8)	2.7 (0.8)	3.1 (0.6)	3.0 (0.7)	2.6 (0.7)
Work team									
Participative safety	3.9 (0.7)	3.9 (0.8)	3.9 (0.9)	3.9 (0.8)	3.8 (0.9)	3.9 (1.0)	3.9 (0.8)	3.9 (0.9)	3.9 (0.8)
Support for innovation†	3.2 (0.9)	3.3 (0.8)	3.6 (0.9)	3.3 (0.9)	3.3 (1.1)	3.3 (0.9)	3.2 (0.9)	3.2 (1.0)	3.4 (0.9)
Task orientation‡	3.6 (0.6)	3.6 (0.8)	3.7 (0.7)	3.7 (0.6)	3.8 (0.6)	3.7 (0.6)	3.8 (0.6)	3.8 (0.7)	3.9 (0.7)
Vision	3.2 (0.7)	3.3 (0.6)	3.4 (0.8)	3.5 (0.6)	3.4 (0.8)	3.5 (0.7)	3.4 (0.6)	3.4 (0.7)	3.5 (0.7)
Social capital	4.0 (0.5)	3.8 (0.7)	4.0 (0.7)	3.8 (0.7)	3.9 (0.8)	3.8 (0.7)	3.8 (0.7)	3.8 (0.8)	3.8 (0.7)
Management									
Relational justice *	4.1 (0.7)	3.9 (0.8)	4.3 (0.7)	3.7 (0.8)	4.0 (0.9)	3.6 (0.9)	3.9 (1.0)	3.8 (1.0)	3.8 (1.0)

* Interaction effect statistically significant at level $p < .05$ † Main effect of time statistically significant at level $p < .05$

‡ Main effect of group statistically significant at level $p < .05$

Table 4. Psychosocial factors in different elderly care units in 2017

	Number of statements	Home care n = 136 M (SD)	Nursing homes n = 182 M (SD)	Geriatric wards n = 52 M (SD)
Work				
Job demands	3	3.75 (0.87)	3.81 (0.86)	3.90 (0.79)
Job control**	9	3.69 (0.49)	3.52 (0.56)	3.47 (0.52)
Effort	1	4.25 (0.59)	4.31 (0.62)	4.38 (0.53)
Reward	3	2.73 (0.76)	2.61 (0.70)	2.49 (0.69)
Changes at work (magnitude)***	1	5.94 (1.22)	4.75 (1.61)	5.33 (1.41)
Changes in work (quality)	1	-0.31 (1.54)	-0.29 (1.57)	-0.31 (1.70)
Teamwork function				
Participative safety	4	3.88 (0.98)	3.90 (0.82)	3.91 (0.91)
Support for innovation*	3	3.33 (0.93)	3.41 (0.89)	3.59 (0.90)
Task orientation	4	3.66 (0.63)	3.86 (0.65)	3.71 (0.72)
Vision	3	3.48 (0.67)	3.50 (0.70)	3.43 (0.77)
Social capital	8	3.75 (0.73)	3.84 (0.74)	4.02 (0.67)
Fair management				
Relational justice***	6	3.58 (0.94)	3.84 (0.98)	4.26 (0.65)
Procedural justice **	7	3.20 (0.90)	3.11 (0.81)	2.75 (0.80)

*P < 0.05. ** P < 0.01. *** P < 0.001. M = Mean, SD = Standard deviation Differences between units in categorical variables were examined using χ^2 test and in continuous variables using analysis of variance (ANOVA).

Work team

No interaction of group and time was observed in any of the five variables regarding work team, i.e. participative safety, support for innovation, task orientation, vision, and social capital. A main effect of time was found in support for innovation ($p=.020$), while for vision, the main effect of time just failed to reach statistical significance ($p=.095$). The scores for support for innovation remained stable between the first and second measurements and increased between the first and third measurements ($p < .01$). A main effect of group was observed in task orientation ($p=.005$). Geriatric wards using Kinaesthetics scored lower ($M = 3.64$, $SE = .06$, $p < .01$) than nursing homes, but did not differ from home care. No other main effects were observed.

In 2017, helping others and showing consideration were well realised in all the groups taking part in the study. Geriatric ward employees were more innovative ($M= 3.59$) than home care and nursing home staff. The difference was statistically significant ($p < 0.05$). Based on the results, the employees developed their work activities equally in all units. The results indicated the extent of social capital to be very high in elderly care, and there was no statistical difference between the groups.

Management

When comparing the change that had taken place in the geriatric wards with that in other elderly care units, a statistically significant interaction of group and time was observed for relational justice ($p < .001$), but not procedural justice. In the geriatric wards using Kinaesthetics, no differences in relational justice were observed between the measurements, although the increase in the mean score between the first and third measurements only just failed to reach statistical significance ($p = .098$). In home care, relational justice scores increased from the first to the second measurement ($p = .02$), while no difference was found between the first and third measurements. In nursing homes, no change over time was observed. In procedural justice, a main effect of group ($p=.003$) but not time was found. Geriatric wards using Kinaesthetics scored lower ($M = 2.85$, $SE = .08$) than both home care and nursing homes.

In 2017, relational justice was perceived to be best in geriatric wards ($M =4.26$). The difference was statistically highly significant ($p < 0.001$). In

procedural justice, on the other hand, geriatric wards had the lowest mean ($M = 2.75$). The difference between the groups was statistically significant ($p <0.01$).

Discussion

The aim of the current study was to analyse the change in psychosocial factors at work after the implementation of Kinaesthetics in one region of inter-municipal cooperation in elderly care in Finland. Job characteristics, teamwork function and organisational justice were analysed. The results were compared with home care and nursing homes.

The changes in psychosocial factors at work were very similar in all the units analysed. In general, psychosocial factor at work were perceived rather favourably in all units, and the differences were minor regardless of statistical significance. Based on the current results, implementation of Kinaesthetics had only minor influence on how employees experience their work, work team and management.

The change differed between the units only regarding relational justice in management. A tendency for improvement was observed in the geriatric wards after they started to use Kinaesthetics. One factor that may have contributed to this is that ward managers had actively taken part in Kinaesthetics training. According to previous research, first-line managers have a key role in the implementation of new rehabilitation models of care. When it comes to learning Kinaesthetics and a rehabilitation model of care, managers are present in the everyday work of the unit, providing support and enabling new practices (Vahakangas, 2010; Fringer, Huth, & Hantikainen, 2014, Finger, Huth & Hantikainen 2015). The respondents were more satisfied with the leadership of their own work unit than the leadership of the organisation.

In the wards in question, procedural justice had deteriorated slightly, and was perceived as poorer than in other elderly care units. During the study, a nation-wide health and social services reform was being prepared, and it is thus possible that the effect of the intervention was overridden by other changes in the organisation. The structural reforms within the organisation where the number of beds was reduced by closing one geriatric ward may have contributed to the results. It is likely that staff members felt that

structural reforms come from the level of the organisation, outside their own unit.

Following the implementation of Kinaesthetics, there was a slight, although not statistically significant, increase in innovation in the geriatric wards. This finding is corroborated by other studies on Kinaesthetics: innovation increases when Kinaesthetics is used as a rehabilitation model of care (Fringer, Huth & Hantikainen, 2015; Stenman et al., 2016). The results show that the level of goal-orientation and development was good in all elderly care units and no differences between the units existed. These findings differ from those of an earlier analysis in the same organisation, which showed that those working in service housing and nursing homes are best acquainted with the goals of their work and develop their work more than those working in geriatric wards (Stenman et al. 2015). A key element in the implementation of Kinaesthetics is that employees test new methods and reflect on them together. Regarding development, the results were in line with previous research on Kinaesthetics (Fringer, Huth & Hantikainen, 2014; Stenman et al., 2016).

The level of social capital was high in all elderly care units. In the geriatric wards that had taken Kinaesthetics into use, in addition to the results described above, giving assistance and showing consideration remained at good level, with no difference from the other elderly care units. According to earlier research, Kinaesthetics improves learning together and promotes team work when used as a care practice model (Fringer; Huth & Hantikainen, 2014; Fringer, Huth & Hantikainen, 2015; Stenman et al., 2016). Lack of improvement in social capital in this study may be due to ceiling effect.

After the implementation of Kinaesthetics, there was no difference in change in work characteristics between the work units. For example, job demands increased in all units during the follow-up. According to previous research, the use of Kinaesthetics reduces nurses' work burden (Betschon, Brach & Hantikainen, 2011). However, the reduction in the number of beds and closing one ward may have caused more burden for the remaining wards in this study. Job demands were considered the high in the geriatric wards, which is in line with previous research (Rouxel, Michinov & Dodeler, 2016). In all the units taking part in the study, job effort

was very high. Job rewards decreased in all units, which may be due to the structural reforms that took place in the elderly care and the national pay cuts during the follow-up.

The results indicate that the implementation of Kinaesthetics may have a positive effect on employee job satisfaction. The results were in line with previous research on models that promote client rehabilitation (Stanmore, Ormrod & Waterman, 2006; Resnic et al., 2009b; Vahakangas, 2010).

Strengths and limitations

The cross-sectional surveys in this study were conducted with total sampling, where the focus is on response rates. The study sample was relatively small, but the participation rate was high. The measures used in these surveys were widely used and validated. The measures that best describe the characteristics of a ward that promotes a rehabilitative model of care were chosen for analysis (Vahakangas 2010). As an existing survey was used, it could not be modified.

The limitations of the study include generalisability and possible effects of other factors. One key limitation is also that the study was not a randomised intervention study. The material was collected in elderly care units within a collaboration area comprising four municipalities. The results can be generalised to this area. During the five-year follow-up period, a lot of structural reforms took place in elderly care, which may have had a significant impact on the results. At baseline, each of the three geriatric wards had 35 beds. In 2015, one of the geriatric wards was housed in a temporary location, which meant that the number of beds and staff was reduced by half. In addition, one geriatric ward was closed at the beginning of 2016. It is likely that these changes had an impact on respondents' perceptions of work characteristics, such as job demands, job control, rewards and procedural justice. Other material, such as interviews, could have been utilised in the study to deepen the knowledge. However, the fact that several cross-sectional surveys were examined improved the reliability of the study.

Conclusion

The results indicate that the implementation of Kinaesthetics may have a positive effect on employee job satisfaction in elderly care,

although the effects found in this study were minor. Managers play a key role in trying out and implementing new care practices. The fact that all employees, including managers, take part in the same training promotes multiprofessional collaboration and reaching a common goal. Kinaesthetics provides an opportunity to learn and come up with new ideas together. Other large-scale structural reforms that coincided with the adoption of the new model of care may have had a negative effect on the outcomes. The results of this study can be utilised in the implementation of the rehabilitation model of care, and of Kinaesthetics in particular. Further studies are needed to elucidate the incorporation of Kinaesthetics into daily routines. In addition, more research is warranted on the effects of Kinaesthetics on the quality of elderly care nursing by monitoring changes with different instruments.

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