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**Psychophysical burden and lack of support:**

**Reasons for care workers' intentions to leave their work in the Nordic countries**

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## **Key Practitioner Message**

- High personnel turnover rates pose serious risks to the future provision of long-term care services in the Nordic countries.
- The most consistent organisational predictors of intentions to leave are related to the perceived burden and lack of support from supervisors.
- Resources and management urgently need improvement in order to safeguard the workforce in long-term care.

## **Abstract**

Long-term care of older adults is currently suffering from a shortage of trained personnel and high turnover rates. Care work is poorly paid, demanding, increasingly time-bound, and both mentally and physically burdensome. In this study, we examined the individual, organisational and economic factors that predict professional care workers' intentions to leave their current employment, using the NORDCARE survey data (2015, N=3801) collected in Denmark, Finland, Norway, and Sweden. The respondents were mainly practical and assistant nurses. The analysis showed that the predictors of intentions to leave were similar in the four countries. The most consistent organisational predictors of leaving intentions were related to psychophysical burden and a lack of supervisor support. Younger age also predicted intentions to leave. To break the vicious circle of burdensome work and high turnover, care workers need sufficient resources and support to conduct their work properly.

Keywords: care work, leaving intentions, psychophysical burden, older adults, long-term care

The social and health care service sector in the Nordic countries is facing challenges caused by demographic change, as large groups of older workers are leaving the labour market and only small cohorts of young people are ready to take over. At the same time, the ageing population has led to expectations of an increase in the demand for long-term care (LTC) services.

The predicted shortages of social and health care sector employees in Nordic countries vary: between 20 000 employees in Finland by 2025, 35 000–52 000 in Norway by 2030, and as many as 160 000 in Sweden by 2035 (Koponen, Laiho, & Tuomaala, 2012; Nordic council of Ministers 2014, p. 27; Statistics Sweden, 2015). In Denmark, in LTC alone, a shortage of 21 000–31 000 care workers is expected by 2025 (Schulz, 2014, p. 31). Comparing these national predictions is difficult because the professions included in the calculations vary so greatly. What is clear, however, is that the ageing population is creating an increasing need for personnel in LTC.

The Nordic welfare states are a particularly interesting case in terms of care workers' intentions to leave their work. In principle, Nordic countries offer tax-financed social and health care services, including LTC, for everyone, according to professional discretion and needs assessment (Kildal & Kuhnle, 2005; Szebehely & Meagher, 2018). The service users pay varying user fees, but the services are predominantly financed through taxes. The universal welfare model and extensive public services are based on the vast public sector employing women in particular in health care and in the care of children, the disabled and older people. As Carsten Jensen (2008) stated, in Scandinavia, the expansion of the public social care sector provided women with a gateway to the job market as well as the opportunity to transfer social care from the family to the state. The Nordic countries have been called social service states (Anttonen, 1990) and caring states (Leira, 1994; Daly, 2001) because social care is provided as a public service instead of on the basis of monetary transfers. The extensiveness of services-in-kind makes the Nordic countries different from other welfare states. However, if vast numbers of women are planning to leave care work, in which the need for workers will become urgent in the coming years, the production and provision of public care services for older people are in danger.

In this article, we examine care workers' intentions to leave their current jobs. We use the NORDCARE survey data, collected in 2015 in four Nordic countries – Denmark, Finland, Norway and Sweden – to analyse the factors that predict care workers' intentions to leave. The aim is not to compare the four rather similar welfare states but to identify the challenges that the Nordic countries encounter in terms of guaranteeing the sufficiency of care personnel in their tax-funded LTC services that should, in principle, be available to all older people with care needs. This paper adds to the existing research an analysis of individual, organisational and economic factors, complemented by other structural variables related to care workers' leaving intentions.

### **Care of older people in Nordic countries: Increasing effectiveness demands**

Public provision of care services is a common feature of the four Nordic countries in this study. Until the 1990s, local municipalities or regional authorities largely produced and provided both home care and residential care. Non-profit third-sector organisations also played an important role in providing residential care, especially in Finland. During the past two decades, however, market rationalities and for-profit service providers have entered the care sector (Authors, 2019; Hjelmar & Rostgaard, 2020; Moberg, 2017). Today, public authorities are still responsible for the LTC system, but the services are increasingly produced by private for-profit providers, albeit to a smaller extent than in many other European countries. The introduction of market-based care services in the four countries has differed. In Finland and Sweden, the marketisation of services has been more extensive than in Denmark and Norway. In Finland, private companies provide residential care services in particular, but in Sweden they provide both home care and residential care. In Denmark, private providers offer a share of home care, but residential care is almost completely public. In Norway, the share of private service providers is minimal in both sectors (Alastalo, Kehusmaa & Penttinen, 2018; Szebehely & Meagher, 2013, p. 244–245; Rostgaard et al., 2015).

Reforms following the rationalities of New Public Management (NPM) have been introduced particularly in Sweden and Finland, where marketisation is also the most extensive. The

aim of NPM is to make organisations as cost-effective as possible. In care work, NPM reforms have been introduced in both the public and private sectors. This has meant strict, and often hierarchically ordered time and task management and the ‘customisation’ of care work (Clarke & Newman, 2007; Strandell, 2020; Vabø, 2009). According to research, care workers feel that providing good-quality care is difficult when care is designed to be overly task oriented and strictly time restrained (Dahl, 2009; Szebehely & Trydegård, 2012; Tainio & Wrede, 2008).

The demand for cost-effectiveness in recent years has meant scarcer resources, as LTC is provided with less staff. The ideals of active ageing and living at home for as long as possible, together with cuts in service provision and decreasing places in residential care mean that today, more disabled and frailer older people than ever continue to live at home. When they start to receive care services, their needs are already demanding (de Meijer, Bakx, van Doorslaer, & Koopmanschap, 2015; Gianino et al., 2017; Strandell, 2020; Vehko, Sinervo, & Josefsson, 2018).

The fact that an increasing share of older people have memory disorders creates demand for care workers in both residential care and home care. Strict time and task management, together with a rapid pace of work, mean that the needs of frail old people with memory problems are not met, and exposes care workers to clients’ agitated and violent behaviour, for example (Banerjee et al., 2012; Cohen-Mansfeld, Marx, & Werner, 1992; Geiger-Brown et al., 2007; Robinson & Tappen, 2008). The same issues – lack of time for work tasks, caring for individuals with dementia or individuals requiring different levels of assistance at the same workplace – have also been claimed to be the most emotionally and physically strenuous aspects of work in the care of older people (Hasson & Arnetz, 2008).

### **Leaving intentions and turnover related to individual, organisational, and economic factors**

High turnover rates in the care sector have been a reality in many European countries for more than a decade (Anglely & Newman, 2002; Moriarty, Manthorpe, & Harris, 2018). Care and nursing professions have also been researched for years. According to a literature review of 130 studies on

nurse turnover (Hayes et al., 2006), most studies have highlighted ‘individual’ (e.g., age, education) ‘organisational’ (e.g., work overload, management style) and ‘economic’ (e.g., salary) factors.

Regarding organisational factors, discussions on the burdensomeness of care work have been on the agenda of both policy-making and research in the past years in most welfare states, including the Nordic countries. LTC workers have shown to be at risk of work-related poor health, stress, and burnout (Authors, 2018), which leads to early retirement and high turnover (Colombo et al., 2011; Castle & Engberg, 2006). Trydegård (2012) examined the working conditions of care workers in the Nordic countries and found that the likelihood of considering leaving increased in tandem with being assigned too much work, not being able to influence one’s own work or develop professionally in one’s job and feeling inadequate in the care situation. Care workers who felt that they were not receiving support from their supervisors were also more likely to consider leaving their jobs than others (Ibid; also Fläckman, Sørli & Kihlgren, 2008; Virido & Daly, 2019). Similar determinants of care workers’ leaving intentions have also been found in research outside the Nordic context (Brannon et al., 2007; Robison & Pillemer, 2007; Karantzas et al., 2012; Sasso et al., 2019).

Regarding individual factors or socio-economic characteristics, the literature review by Hayes et al. (2006) highlighted the often-found *inverse* relationship between intentions to leave and age, or the length of work experience that normally correlates with age and is often difficult to distinguish from it. A recent study found a similar result among LTC workers in Finland: younger care workers were more likely to consider leaving their jobs (Authors 2021). According to Hayes et al. (2006, p. 243), educational level also tends to increase nurses’ turnover intentions, because ‘more highly educated individuals are more likely to quit in order to seek career advancement, especially if there are limited opportunities in their current organisation’. It is not known if the same applies to care workers in care for older people, although some studies have also found a correlation between care workers’ education levels and turnover intentions in LTC (Authors 2021; Decker, Harris-Kojetin, & Bercovitz, 2009). Regarding economic factors, Hayes et al. (2006) found mixed evidence, which indicated that the effect of wages on nurses’ turnover intentions is highly context dependent. According to Decker et al. (2009) dissatisfaction with wages predicted nursing assistants’ intentions

to leave their jobs in nursing homes in the US. To our knowledge, no prior research exists on the effects of economic factors on care workers' intentions to quit in the Nordic countries.

In the following sections, we examine the factors that predict care workers' intentions to quit their work caring for older people in Denmark, Finland, Norway, and Sweden. In line with the classification of Hayes et al. (2006), we look at 1) individual factors (i.e. age, education), 2) organisational factors (i.e. support from one's supervisor, opportunities to influence the daily planning of work, feelings of inadequacy, time pressure, perceived burden, worries about the threat of violence), and 3) economic factors (i.e. salary), but we also complement these with other structural factors related to the employment setting and conditions (i.e. private or public sector, temporary or permanent contract, work in home care or residential care) that are not included in Hayes et al.'s (2006) classification.

## **Data and Methods**

Our data were obtained from the NORDCARE survey, carried out in Denmark, Finland, Norway and Sweden in 2015 (N=3801). The questionnaire was developed by a team of researchers from the Nordic countries and was used for the first time in 2005. Most questions are validated in previous surveys and the entire questionnaire was tested in interviews with care workers in all four Nordic countries before being distributed. Some new questions were added in 2015. Since 2005, the survey has also been carried out in Australia, Canada, Germany and Japan and used in several studies (e.g., Daly & Szebehely, 2012; Elstad & Vabø, 2008; Meagher et al., 2016; Strandell, 2020; Theobald et al., 2018; Trydegård, 2012).

The NORDCARE questionnaire was sent to a random sample from the membership lists of care workers' unions in the four countries, as the majority of care workers in these Nordic countries belong to a union. The sample was 2000 in each country in 2015 and the aim was to reach



about 1000 respondents in all four countries. Response rates varied between 52% and 59%. The majority of the respondents were women (92–96%) and native born (75–98%).

The questionnaire contained demographic and background questions and questions about the content of the respondents' working days, employment terms, working conditions and their personal views and experiences of the burdensomeness of their work. The respondents were care workers employed in home care and residential care services, with job categories such as home helpers, assistant nurses, care aides, nurse's aides, and practical nurses. Registered nurses were not included.

We followed the ethical principles of research (Korhonen, Kuula-Luumi, & Spoo 2019) throughout the study. The participants gave their informed consent, knowing that their responses would be handled anonymously, and that no personal, identifiable information would be saved. According to the Finnish National Board on Research Integrity guidelines, this study did not require ethical approval, as the collected data were completely anonymous, and the participants did not represent especially vulnerable groups such as minorities or people with limited capacity (ibid).

In this article, we examine intentions to leave on the basis of responses to the question **'Have you seriously considered leaving your current job during the last year?'**. The response options were 'yes' and 'no'. The question does not distinguish between intentions to leave the job (to look for another job in the care service sector) and intentions to leave the profession altogether. Naturally, considering leaving care work and changing professions is a more serious question for the entire social and health care sector than organisational turnover. Nonetheless, organisational turnover is also a serious issue because it reduces organisations' ability to ensure a continuous relationship between care workers and care receivers. The constant recruitment and integration of new workers can also consume supervisors' time and resources, and thus reduce their ability to support their staff and implement improvements in the quality of care.

### *Independent Variables*

Of the individual factors, we included age as a continuous variable. The respondents' education and/or training in the field of care for older people was elicited by five alternatives, less than one month, 1–5 months, 6–11 months, 1–2 years, more than two years. For the analysis, we categorised education into a dichotomous variable: maximum of two years vs more than two years. Gender and migration background was not included in the analysis because of the low number of men (4–7%) and migrants (2% in Finland, 7% in Denmark, 9% in Norway and 19% in Sweden) among the respondents.

Of the organisational factors, we calculated a burden index variable (see also Authors, 2021) using the median of four observed Likert scale variables: (1) feeling physically tired after a working day; (2) experiencing pain in your back after a working day; (3) feeling mentally exhausted after a working day; and (4) having difficulties sleeping because thoughts of work keep you awake. These variables were rated on a five-point Likert scale: (1) never, (2) rarely, (3) sometimes, (4) often, and (5) almost always. Cronbach's alpha was measured to predict the internal consistency of these variables as a group. An alpha coefficient of 0.77 indicated a relatively high internal consistency.

Organisational variables concerning 'receiving support from one's immediate supervisor', 'being able to affect the daily planning of work' and 'feeling inadequate because care recipients are not receiving enough help' were measured on a four-point Likert scale (most often, sometimes, rarely, and never). However, to increase the number of responses in the last two lower options, we combined the 'rarely' and 'never' categories.

The last two organisational variables, 'Care workers have no time to carry out the tasks that are planned for the care recipient' and 'Are you subjected to physical violence or threats by care recipients or their relatives?' were measured on a five-point Likert scale: (1) never, (2) less often, (3) every month, (4) every week, and (5) more or less every day. In this study, we treated these variables as continuous, in line with Williams' recommendation (2020). In his paper, Williams provides suggestions on when to consider ordinals as continuous variables. Accordingly, we applied BIC tests

and Wald tests to check linearity, and the results supported the use of the two variables above as continuous variables.

The economic factor ‘Are you worried that your salary is not enough to cover your living expenses?’ was measured on a four-point scale, ‘no not at all’, ‘no not very much’, ‘yes somewhat’, and ‘yes a great deal’. The respondents’ primary place of work was categorised into three groups: residential care, ordinary home and other. The ‘other’ category included respondents working in both settings (i.e., residential care and ordinary home) or other care-related services. The respondents’ sector of employment was categorised into a dichotomous variable (public sector vs private sector). The private sector included both private companies and third sector organisations. These two were combined due to the very low number of respondents working in the third sector, especially in Norway (n=14) and Sweden (n=9). Employment contract was categorised as a dichotomous variable: temporary employment vs permanent employment. Temporary employment included employment on a fixed-term contract or on an hourly or casual basis.

### *Analysis*

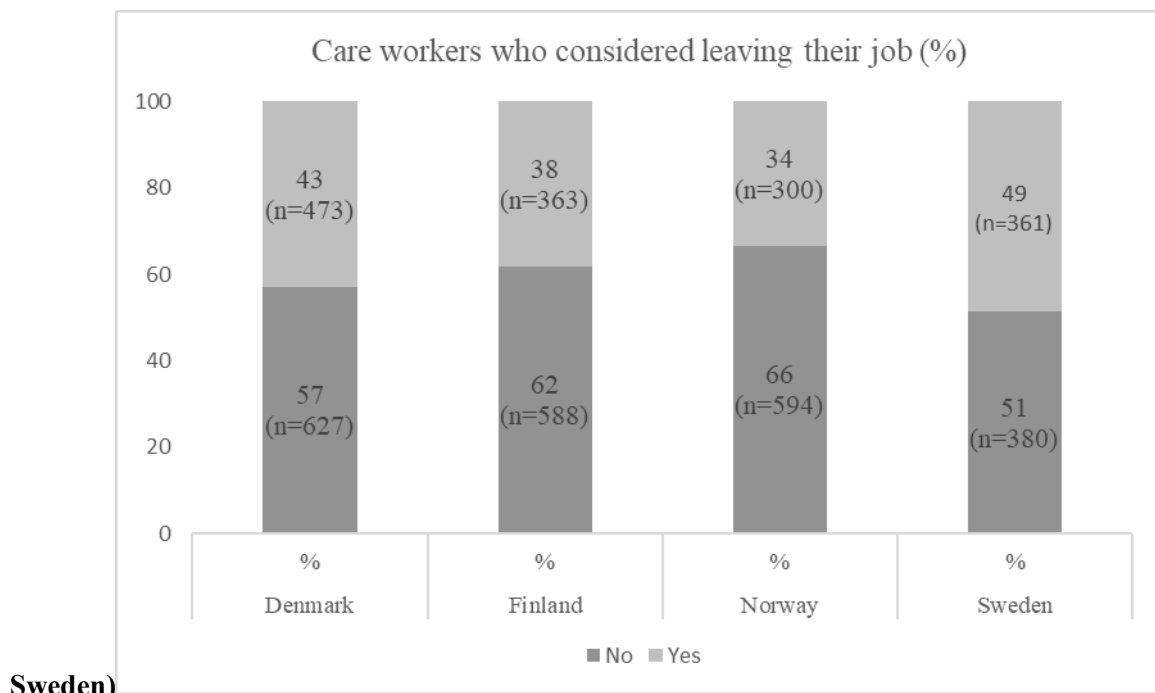
Data analyses were performed using SPSS version 26 computer software. We conducted cross-tabulation for all four countries separately to describe the characteristics of the individual, organisational, economic, and other structural variables. In addition, we performed Chi square and One-Way ANOVA tests separately (results are not reported in Table 1) for each country to compare respondents with intentions to leave to respondents with no intentions to leave in each respective country. In all four countries, the respondents with intentions to leave differed ( $p<0.05$ ) from the respondents with no intentions to leave in terms of age, education, all organisational factors, and worries related to salary. The other structural factors (employer, place of work and employment conditions) showed some variation in the different countries (significant and non-significant results) when respondents with intentions to leave were compared to respondents with no intentions to leave.

We also performed binary logistic regression independently for each Nordic country to explore the relationship between dependent and independent variables. Although logistic regression does not assume the key assumptions of linear regression (e.g., homoscedasticity), it holds certain assumptions, the absence of multicollinearity between independent variables being the most important. We used the standard collinearity diagnostic test to examine multicollinearity. The result showed an acceptable tolerance value of >0.1 and a variance inflation factor (VIF) value of <10 (Field, 2009). A listwise deletion approach was used to handle the missing data in the regression model. The results were presented using odds ratios (OR) with 95% confidence intervals.

## Results

In the Nordic countries, 41% of care workers had considered leaving their current jobs. The worst situation was in Sweden, where 49% of care workers had intentions to leave, followed by Denmark and Finland. Norway had the least care workers who had considered leaving, at 34%.

**Figure 1. Proportion of respondents who have considered leaving their current work within the past 12 months (N=1100 in Denmark, N=951 in Finland, N=894 in Norway and N= 714 in**



Sweden)

The median age of care workers was the lowest in Finland (*Mdn*=49) and the highest in Norway (*Mdn*=53) (Table 1). About four out of five care workers in Finland had over two years of care work education, whereas in the other three countries, the proportion was about a half.

Care workers experienced psychophysical burden sometimes or often in their work: the median of the burden variable ranged between 3 and 3.5 in the four countries. Finnish respondents reported burden more often than their Nordic colleagues. The experience of being unable to carry out the tasks planned for a care recipient was more common in Finland, Denmark, and Sweden (*Mdn*=3, 'every month') than in Norway (*Mdn*=2, 'less often'). Despite the differences in working conditions, the care workers in the four countries reported comparative levels of being subjected to physical violence or threats by a care recipient or their relative: in each country, the median response indicated experiences of violence or threats of violence 'less often' than every month. In all four countries, one-third of the care workers received support from their immediate supervisor 'most often', except in Norway, where almost half of the care workers received support 'most often'. Compared to care workers in other Nordic countries, Finnish care workers (40%) reported less opportunities to influence the daily planning of their work. In Finland, Denmark and Sweden one-third of care workers felt inadequate 'most of the time' because care recipients were not receiving enough help. In Norway, one-fifth of care workers felt the same. The Finns were most often extremely worried that their salary was not enough to cover their living expenses (41%), whereas in Denmark, this worry was the least common. Finland also had the highest share of respondents from the private sector (over one-fourth), followed by Sweden (almost one-fifth). The proportion of respondents with a temporary contract was also highest in Finland (18%). More than half of the care workers were employed in residential care settings in all four countries, but the highest proportions were in Norway (71%) and Finland (67%).

**Table 1: Descriptive statistics**

	Denmark		Finland		Norway		Sweden	
	Total (n=1118) Mdn/%	Leaving the job (n=470) Mdn/%	Total (n=971) Mdn/%	Leaving the job (n=363) Mdn/%	Total (n=910) Mdn/%	Leaving the job (n=299) Mdn/%	Total (n=763) Mdn/%	Leaving the job (n=360) Mdn/%
<i>Individual factors</i>								
Age	52	50	49	43	53	50	50	46
Education/training								
Maximum of 2 years	57	52	27	21	54	46	59	53
More than 2 years	43	48	73	79	46	54	41	47
<i>Organisational factors</i>								
Burden	3	3.5	3.5	4	3	4	3	4
Receive support from immediate supervisor								
Yes, most of the time	34	23	36	22	46	30	32	23
Yes, sometimes	44	46	36	37	35	40	37	31
Rarely / never	22	31	29	41	19	30	31	46
Can affect the planning of daily work								
Yes, most of the time	44	36	22	15	33	27	34	29
Yes, sometimes	35	37	38	35	50	46	41	37
Rarely / never	20	27	40	50	17	28	26	34
Feeling inadequate because care recipients are not receiving enough help								
Mostly not	17	9	13	10	14	10	14	10
Yes, sometimes	48	42	52	39	65	57	52	41
Yes, most of the time	35	48	35	51	21	34	34	49
No time to do tasks that are planned for a care recipient	3	4	3	4	2	4	3	3
Subjected to physical violence or threat	2	2	2	2	2	2	2	2
<i>Economic &amp; other structural factors</i>								
Worried that salary is not enough to cover expenses								
No, not at all	37	27	10	6	18	10	15	11
No, not very much	36	38	28	21	44	41	29	20
Yes, somewhat	17	21	31	33	24	28	31	37
Yes, a lot	10	14	30	41	14	20	24	32
Employer								
Public sector	88	85	72	67	96	94	85	82
Private for-profit/not-for-profit	12	15	28	33	5	6	15	18
Employment conditions								
Temporary employment	6	5	18	18	5	7	11	10
Permanent employment	94	95	82	82	95	93	89	90
Place of work								
Residential setting	56	57	67	67	71	71	64	66
Ordinary home	35	34	22	24	18	21	30	29
Other	9	9	11	9	11	7	6	5

The care workers with leaving intentions were on average younger and more highly educated than the care workers with no leaving intentions (see Table 1). They often experienced burden and daily or weekly had insufficient time to carry out the tasks planned for care recipients. A further difference between all the respondents and those with leaving intentions was that the latter group less often received support from their immediate supervisor and could less often influence the daily planning of their work. Respondents with leaving intentions also more often felt inadequate because care recipients did not receive enough help. Finally, they were more often worried that their salary was not enough to cover their expenses.

We used logistic regression analysis to examine which factors accounted for leaving intentions when the other factors were controlled for (Table 2). There were some differences among the four countries, but the strongest predictors of leaving intentions were consistent across the countries. In general, the younger respondents were more likely to be considering leaving their jobs than the older ones. Of the organisational factors, experiencing psychophysical burden and lacking support from one's supervisor showed statistically significant results in all four Nordic countries. First, experiencing work-related psychophysical burden predicted leaving intentions in all four countries (OR varied between 1.90 in NO and 2.14 in SE). Second, the respondents who mostly received no support from their immediate supervisor had considered leaving their job in all the four countries (OR varied between 1.99 in DK and 2.73 in SE) more often than those who often received support.

The other organisational variables predicting leaving intentions were not consistent across the four countries. First, having no time to do the tasks planned for a care recipient predicted leaving intentions only in Sweden (OR=1.49;  $p<0.001$ ). Second, being subjected to physical violence or threat of violence by a care recipient or their relative predicted leaving intentions in Norway (OR=1.20;  $p<0.05$ ) and Sweden (OR=1.26;  $p<0.05$ ). Being 'worried a lot' that one's salary is insufficient to cover expenses predicted leaving intentions only in Denmark (OR=1.85;  $p<0.05$ ). Yet, worries related to salary were less typical in Denmark than in the other countries (Table 1).

**Table 2: Logistic regression: background variables and work-related factors associated with intentions to leave**

	Denmark N=938	Finland N=816	Norway N=727	Sweden N=643
	OR (95%CI)	OR (95%CI)	OR (95%CI)	OR (95%CI)
<i>Individual factors</i>				
Age	0.97(0.96-0.99)**	0.97(0.95-0.98)***	0.97(0.95-0.99)**	0.96(0.95-0.98)***
Education/Training (Ref: Max of 2 years)				
Yes, more than 2 years	1.52(1.12-2.05)**	1.36(0.93-2)	1.12(0.78-1.61)	2.28(1.52-3.43)***
<i>Organisational factors</i>				
Burden	2.08(1.7-2.55)***	2.06(1.64-2.58)***	1.90(1.49-2.43)***	2.14(1.68-2.72)***
Receive support from immediate supervisor (Ref: Yes, most often)				
Yes, sometimes	1.62(1.14-2.31)**	1.72(1.15-2.57)**	2.09(1.39-3.15)***	0.91(0.56-1.48)
Rarely/never	1.99(1.28-3.11)**	2.62(1.68-4.07)***	2.47(1.48-4.1)***	2.73(1.61-4.61)***
Can affect the daily planning of work (Ref: Yes, most often)				
Yes, sometimes	1.21(0.85-1.72)	0.76(0.48-1.19)	0.86(0.57-1.3)	0.84(0.53-1.32)
Rarely/never	1.45(0.92-2.30)	0.85(0.53-1.36)	1.69(0.97-2.95)	1.74(0.97-3.10)
Feeling inadequate because care recipients are not receiving enough help (Ref: Mostly not)				
Yes, sometimes	1.12(0.71-1.77)	0.76(0.45-1.31)	1.10(0.61-1.96)	0.91(0.48-1.73)
Rarely/never	1.38(0.82-2.32)	1.45(0.81-2.61)	1.98(0.99-3.95)	1.66(0.8-3.41)
No time to do tasks that are planned for a care recipient	1.07(0.93-1.23)	0.99(0.84-1.17)	1.16(0.97-1.38)	1.23(1.02-1.48)*
Subjected to physical violence or threat	1.10(0.95-1.28)	1.01(0.87-1.16)	1.20(1.01-1.42)*	1.26(1.04-1.53)*
<i>Economic &amp; other structural factors</i>				
Worried that salary does not cover expenses (Ref: No, not at all)				
No, not very much	1.31(0.93-1.85)	1.02(0.51-2.02)	1.23(0.71-2.12)	1.08(0.58-2.00)
Yes, somewhat	1.29(0.84-1.99)	1.35(0.69-2.65)	1.22(0.68-2.21)	1.74(0.95-3.17)
Yes, a lot	1.85(1.04-3.3)*	1.42(0.71-2.82)	1.21(0.6-2.44)	1.09(0.56-2.14)
Employer (Ref: public sector)				
Private for-profit/not-for-profit	1.48(0.95-2.31)	1.48(1.03-2.13)*	1.52(0.7-3.3)	1.90(1.1-3.29)*
Employment conditions (Ref: Temporary employment )				
Permanent employment	1.36(0.72-2.56)	1.26(0.8-1.98)	0.88(0.38-2.03)	1.84(0.91-3.71)
Place of work (Ref: Residential setting)				
Ordinary home	1.07(0.74-1.54)	1.34(0.87-2.06)	1.33(0.84-2.13)	1.20(0.74-1.94)
Other	1.25(0.72-2.18)	0.98(0.55-1.75)	0.66(0.33-1.33)	1.82(0.7-4.76)

The ability to affect the daily planning of work and feeling inadequate because care recipients do not receive enough help did not predict intentions to leave in any of the four countries when the other variables were controlled for. The effects of these variables (which are clear in Table



1) were thus entirely mediated by the other variables in the regression analysis (including burden and lack of supervisor support).

The care workers who worked in the private sector had considered leaving more often than those who worked in the public sector in Finland and Sweden, where the private sector is larger than that in Denmark and Norway.

## **Discussion**

The Nordic countries face the challenge of insufficient staffing in LTC. The proportion of care workers who had considered leaving their current employment setting in the last year varied from one-third in Norway to almost one-half in Sweden. We analysed the individual, organisational, economic, and structural factors that predicted care workers' intentions to leave their work in four Nordic countries. According to descriptive analysis, the clearest differences between care workers with and without leaving intentions were related to organisational factors: care workers with leaving intentions experienced more psychophysical burden, lacked support from their supervisors, lacked opportunities to influence the daily planning of their work, had feelings of inadequacy and time pressure, and encountered some extent of violence or the threat of violence from a care recipient or their relative. Individual factors were also significant: the respondents with leaving intentions were on average younger and more educated than the care workers with no leaving intentions. Finally, the respondents with leaving intentions were more often worried that their salary was insufficient to cover their expenses than the others and slightly more often worked in the private sector.

Overall, the descriptive analysis gave a slightly more positive picture of the organisational and economic conditions among the Norwegian and (to some extent) Danish than among the Finnish and Swedish care workers. The Danish and Norwegian care workers received support from their supervisors and could influence the daily planning of their work more often than their Swedish and Finnish colleagues. The Norwegian workers felt inadequate in their work the least

often. Finland and Sweden stood out with the largest share of care workers working in the private sector and those worried about insufficient salary. Also in Finland and Sweden, a larger share of care workers had a temporary work contract.

In the regression analyses, when all variables were controlled for, the strongest and most consistent predictors of leaving intentions were work-related burden (i.e., feeling physically tired, suffering back pain, feeling mentally exhausted after a working day, and experiencing sleep difficulties) and the lack of supervisor support. It seems plausible that other organisational and economic factors – including the threat of violence, feelings of time pressure, worries related to salary, and especially feelings of inadequacy and the inability to influence the daily planning of work – mainly increase care workers' leaving intentions because they increase their psychophysical burden. Lack of supervisor support predicted leaving intentions also when psychophysical burden was controlled for. This indicates how important supervisor's support is in demanding and burdensome care work where workers struggle with feelings of inadequacy, lack opportunities to influence the daily planning of their work and work under time pressure.

In short, in order to prevent care workers, especially younger and better educated ones, considering leaving their jobs and possibly the entire profession, the Nordic countries should focus on alleviating the burden and stress they experience and on increasing supervisors' abilities to support care workers in their daily work.

In the care of older people, intentions to leave are related to the vicious circle created by the demand for cost-effectiveness and inadequate staffing, which exposes care workers to time pressure, feelings of inadequacy, psychophysical burden and (to some extent) physical violence or the threat of physical violence. It is difficult to combine effectiveness with good quality of care, because good care requires time (Authors 2018, 2019; Mol 2008). Supervisors' inability to support their staff seems to further accelerate the vicious circle: inadequate support increases care workers' turnover rates, high turnover rates increase supervisors' continuous need to recruit new employees, and this in turn consumes supervisors' abilities to support the existing staff.

Improvement of supervisors' abilities to support their staff should begin at the organisational level. Due to NPM-related transformations, supervisors face contradictory demands in contemporary care organisations (Authors 2018; 2021): on the one hand, supervisors are expected to serve short-term cost-effectiveness, but on the other hand, they are expected to contribute to high quality of care and ensure the well-being of care workers. The role of supervisors and their ability to support care workers must be the target of political reflection and structural improvement. Supervisors need management skills and training, but they also need time and resources, and without these, their abilities to support their staff remain inevitably limited (Authors 2021). However, improving supervisors' abilities to support their staff is one way to reduce the alarmingly high turnover intentions of carers of older people, albeit only a partial solution, and without improvements in the factors that increase care workers' psychophysical burden, an insufficient solution.

Increasing the number of care workers per care user has been suggested as one way to ease the burden of care workers (Elovainio et al., 2014; Sasso et al., 2019). It has been shown that in hospitals the nurse staffing ratios are related to patient outcomes: less patients per nurse decrease the odds of patient deaths and adverse patient events (Kane et al. 2007; Aiken et al. 2011). In nursing homes, missed care due to insufficient time or resources for care work is associated with nurses' burnout and job dissatisfaction. Yet, it is important to not only pay attention to numbers of nurses or care workers but also to staffing factors like turnover or use of agency staff, to training and experience of staff as well as to care organization and management (White, Aiken & McHugh, 2019).

Higher staffing ratios are shown to positively affect the quality of care (Schnelle et al. 2004). Yet, it is also shown that the relationship between levels of nurse-staffing ratios and different aspects of quality of care in nursing homes are not always very clearly defined and that there is inconsistency in research results regarding the ways in which staffing affects quality of care (Shin & Bae, 2012). Measuring quality of care for older people is complex. Care quality is highly dependent on time, attention and mediating a feeling of being 'cared about' to care users. Therefore, quality cannot be reached only by measuring clinical outcomes (Spilsbury, Hewitt, Stirk & Bowman, 2011) but it is not surprising that higher staffing ratios improve the nurse-assessed quality of care (Aiken,

Clarke & Sloane, 2002; Rääkkönen, Perälä & Kahanpää, 2007). More time per client allows care workers to give more attention and personal care. This again, relieves work-related stress and burden and decreases intentions to leave (White, Aiken & McHugh 2019).

It seems clear that the demands for cost-effectiveness and the implementation of NPM measures, such as defining tasks related to care as accountable assignments, have increased care workers' psychophysical burden. Moreover, the marketisation of care services has significantly changed the entire care sector by, for example, bringing in competition, cost containment, and cost-effective targets for services rather than good-quality care to meet people's needs. All this has altered the former principles and logic of organising social protection in the Nordic welfare states (Dahl, 2009; Hjelmar & Rostgaard, 2020; Moberg, 2017; Strandell, 2020; Trydegård, 2012).

In Finland and Sweden, altogether about one-fifth of services are provided by private for-profit companies. The difference to Denmark and Norway is considerable, where only 4–6% of care services are provided by private companies (Szebehely & Meagher, 2013, pp. 244–245). Both Sweden and Finland have also suffered 'care scandals' which have revealed how some units of residential care provided care of improper quality (Jönson 2014; Yle News 2019). The media reported widely on inadequate staffing, medication, hygiene, and even nourishment, especially in private care units. It is possible that these problems in the private care industry have increased care workers' leaving intentions, particularly in private care companies. Regression analysis showed that working in the private sector predicts intentions to leave in Finland and Sweden, where care services for older people have been marketised the most extensively.

The finding that care workers experience psychophysical burden and lack the support of their supervisors is not new in research on turnover among care professions, and has been shown by previous research (Brannon et al., 2007; Castle & Engberg, 2006; Colombo et al., 2011; Robison & Pillemer, 2007; Sasso et al., 2019). However, this article presents important results from four Nordic countries all facing similar challenges to prevent large numbers of care workers leaving their jobs. The fact that we were able to reveal the effects of psychophysical burden and supervisor support on

leaving intentions across the four countries increases the reliability of these results. Based on their consistency across the four countries, it is reasonable to believe that reducing care workers' psychophysical burden and increasing supervisors' abilities to support care workers are effective ways with which to secure tolerable turnover rates, continue caring relations, and ensure a sufficient amount of care personnel in coming years and decades.

The extensive public services in the Nordic countries have enabled many women to enter the labour market and to transfer social care responsibilities from the family to the state (Jensen 2008). If a significant number of care workers are planning to leave their jobs in LTC, both public and private service providers will face severe challenges to produce the care services required for the increasing number of older people. Inadequate staffing creates a need to make the criteria of needs-tested services stricter. Inadequate staffing also poses risks to the quality of care services, which in turn requires individuals and families to compensate for the deficiencies of care services. These kinds of developments could lead to the refamilisation of care and increased reliance on market-based care services among those who can afford them (Szebehely & Meagher 2018). The consequences of vast shortage of personnel in care work may risk gender equality and increase inequality among older adults, as informal care and private services are unequally accessible or available to older persons.

### **Strengths and limitations**

The survey question on leaving intentions (have you seriously considered leaving your current job during the last year?) was not ideal. It is likely that some respondents had thought about leaving their current employment while others may have thought about leaving the field of LTC or care work altogether. However, regardless of the ambiguous formulation, we consider the question reasonable to measure how committed care workers are to their current jobs. The NORDCARE data collected in four countries are unique. The response rate was high, and the data can be considered to represent the care workers in the four countries. The question of intentions to leave enabled important analysis of future challenges related to having sufficient numbers of educated professionals in care of older

people in the Nordic countries. However, more research is needed to understand the country-wise differences.

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