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Differences in sickness absence in Sweden and Denmark: the cross national HAKNAK study

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Aim: To investigate potential differences in sickness absence among public sector employees in Sweden and Denmark, and to what extent a difference was associated with age, gender, physical and psychosocial work environment exposures, lifestyle factors, self-rated health or work ability. **Methods:** In 2000, two cross-sectional samples of 8562 public sector employees in Sweden and Denmark were surveyed. The study outcome, self-reported number of sick-leave days the year preceding interview, was dichotomized into 7 days or less, and more than 7 days. Chi square test was used to analyse distribution of dependent and independent variables in the two sub-cohorts. Stratified logistic regression analysis was performed to identify causes for absence within the two sub-cohorts, and logistic regression analysis was performed to study differences in sickness absence levels between the two sub-cohorts. **Results:** More subjects from the Swedish study population reported more than 7 days of sickness absence. Factors associated with sickness absence were largely similar in the two countries. The difference in absence level between Sweden and Denmark was not associated with differences in age, gender, skill level, lifestyle, psychosocial or physical work environment, musculoskeletal symptoms or self-rated health, whereas work ability score decreased the difference in sickness absence level. **Conclusion:** The results could indicate an increased retention of employees with health problems in the Swedish labour market compared with the Danish labour market. A possible explanation for the differences in sickness absence ascertained in this study could be due to differences in the sickness insurance legislation.

Keywords: cross sectional, cross national, Denmark, sickness absence Sweden.

Introduction

Sickness absence and the related factors vary over time, among different population sub-groups and between countries. In recent decades, the number of studies of sickness absence has increased in the Nordic countries as well as in many other industrial countries due to extensive consequences for the individual, employers and society. However, international comparisons of sickness absence and its underlying causes are urgently needed to increase the scientific knowledge in this research area.[1,2]

The existing, surprisingly few, comparisons of sickness absence between countries show higher proportions of sickness absence in Sweden, Norway and The Netherlands, compared to other European countries.[3,4] Also, higher levels of and risk for sickness absence have been reported among employees in the public sector compared with employees in the private sector.[4–6] Especially long-term sick-leave spells have been in focus since longer sickness absence spells could have negative effects on the life situation[7] and increase the risk of disability pension.[8–10]

National data on sick leave in Sweden show that persons employed by the municipalities are overrepresented among those on sick leave for $\geq$60 days per annum and that sickness absence varies between occupational groups.[11–14] Compared to Sweden, the overall absence rate in Denmark is considered to be relatively low.[15] However, to date, international comparisons have suffered from incompatibility of sickness absence data sources. Nevertheless, there seems to be a similar trend in Denmark as in Sweden, with regards to an excess risk of sickness absence among employees in the municipal sector[5] and among job groups overrepresented in the municipal sector.[6]

There is a vast body of literature explaining causes of sickness absence within the countries of Sweden[16–20] and Denmark.[5,6,21–30] However, no studies have been performed to explain the causes of the excess sickness absence in Sweden vs. Denmark. The aim of this study was to investigate potential differences in sickness absence levels assessed with identical sickness absence measures, and to investigate to which degree such a difference was associated with differences in age, gender, skill level, work environment, lifestyle, health or work ability.

Methods

Data

The cross-sectional study is based upon the HAKuL study[17] and the Danish Work Environment Study, DWECS.[23] Both samples of public sector employees from Sweden and Denmark were selected in 2000 as described in the following.

Sweden

HAKuL started in 1999–2000 in four county councils and six municipalities in the northern, middle and southern parts of Sweden.[17] The selection of municipalities was not random but based on interest from the municipalities to participate in the project. Information on occupation and age was derived from employers' registers. The study population represents almost

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all types of employees as well as the age and sex distribution of county councils and municipalities in Sweden. A comprehensive questionnaire was constructed using validated instruments as far as possible. The self-administered questionnaire included questions about individual factors, social situation, health, lifestyle, work ability and physical and psychosocial work environment. In year 2000, the questionnaire was distributed to 9003 employees with permanent employment, who at the time of inclusion were not on long-term sick leave for 3 months or longer. A total of 7533 employees (84%) completed and returned the baseline questionnaire. Of these, 511 employees were excluded due to missing data on either sickness absence or type of occupation. Accordingly, 7022 employees were included in the present study.

Denmark

DWECS[23] features a random sample of 11 437 people living in Denmark, of whom 8583 (75%) participated in telephone interviews. Of these, 5357 were employees aged 18–69 who had not been sickness absent for at least 8 weeks prior to interview in 2000. A total of 1584 of the interviewed employees were employed in the municipal sector. Of these, 44 were excluded due to missing values on important variables, leaving 1540 for basis of analysis.

The HAKNAK study population thus consists of those 7022 Swedish and 1540 Danish public sector employees supplying information on sickness absence and skill level, totalling 8562 employees.

Sickness absence compensation systems in Sweden and Denmark

As described below, sickness absence systems were compatible during the time of study, even though the two systems are based on different models: Denmark practices the 'Flexicurity model', which conserves the employers' right from the so-called September Settlement off 1899 to freely hire and fire their employees. Sweden has introduced an active labour market policy that, among other things, protects employees against dismissal during sickness. All subjects in the Swedish cohort were covered by the Swedish national health insurance, which provides sickness benefits to those who fulfil the requirement of being unable to work due to disease or injury. At the time of this study, compensation for the first 14 days of a sick-leave spell was paid by the employer, with the exception of the first qualifying ('waiting') day, for which no benefit was paid. The first 7 days of absence in a sick-leave spell could be self-certified, thereafter a medical certificate was required. Almost similar conditions applied for Denmark at the time of the study: The initial 14 days of sickness absence was paid by the employer, after which the employer would receive a refund for sickness absence compensation from the State. There was no first qualifying ('waiting') day in Denmark at the time—it had been abolished in 1987. The rules with regards to certification were compatible.

The two sub-studies, HAKuL and DWECS, feature an array of common measurements of outcome and determinants of sickness absence. For this study, a working group consisting of researchers from the Swedish and Danish underlying sub-studies was formed, especially focusing on selecting these common features. These are described in the following:

Study outcome

The outcome of this study, 'Sickness absence in year preceding follow-up', was based on self-reported days of sickness absence the year preceding the date of follow-up using one question: 'How many days, approximately, have you been off work for health reasons the last 12 months?' Days of sickness absence was dichotomized as to identify those with 0–7 days of accumulated days of sickness absence per annum vs. those with more than 7 days.

Determinants

Age and gender

The study includes data on gender and age of the individual employee.

Occupational skills

Occupational skill level was classified according to the International Standard Classification of Occupations, ISCO-88.[31] Fifteen levels were identified (table 1).

Lifestyle

Lifestyle factors were measured in term of smoking status (current smokers, previous smokers and never), body mass index (underweight was $BMI < 18.5\,kg/m^2$, normal weight was $18.5 \leq BMI < 25\,kg/m^2$, overweight was $25 \leq BMI < 30$ and obesity was $BMI \geq 30\,kg/m^2$) and physical activity (active or passive).

Physical work environment

Extreme bending of back was divided into two categories according to work time spent in a position with extreme bending of the back: 'No' (never) and 'Yes' (others).

Working with arms above shoulders was divided into two categories according to work time spent in a position with arms lifted above shoulder height: 'No' (never) and 'Yes' (others).

Lifting of heavy loads was divided into two categories according to frequency of lifting: 'No' (never) and 'Yes' (others).

Psychosocial work environment

Quantitative demands was measured with one item: 'Do you have to work very fast?' The response options were dichotomized into the categories 'High' ('always' or 'often') and 'Low' ('sometimes', 'rarely' or 'never').

Table 1 Characteristics of the study population

	Country	
	Sweden	Denmark
N	7022	1540
Age, mean years	45.7	41.7
Gender,% females	82.9	75.3
Occupational skills,% in 15 ISCO-88 job groups		
Legislators, senior officials and managers	4.1	3.4
Clerks	5.1	8.3
Personal and protective service workers	39.6	27.7
Skilled agricultural and fishery workers	0.8	0.3
Craft and related trade workers	2.3	1.0
Plant and machine operators and assemblers	0.7	1.3
Elementary occupations	5.0	10.5
Physical, mathematical and engineering science professionals	0.2	0.7
Life science and health professionals	7.0	2.7
Teaching professionals	10.0	13.4
Other professionals	3.7	2.9
Physical and engineering science associate professionals	1.0	3.0
Life science and health associate professionals	12.5	8.5
Teaching associate professionals	7.0	11.8
Other associate professionals	1.0	4.5
Sickness absence,% with >7 days/year	29.5	24.5

Decision authority was measured with one item: 'Have you got influence on what you do in your job?' Response options were categorized in 'High' ('always', 'often' or 'sometimes') and 'Low' ('rarely' or 'never').

Management quality was assessed with one item 'Is your work recognized and appreciated by the management?' and dichotomized: 'High' (response options 'in a high degree' and 'partly') and 'Low' (response options 'in a low degree' and 'in a very low degree').

Health status

The health status of employees was considered in terms of musculoskeletal symptoms and self-rated health. Three types of musculoskeletal symptoms were identified: Neck symptoms previous 12 months, low back symptoms during the last 12 months and knee symptoms during the last 12 months. Response options were 'yes'/'no'.

Global Self-rated Health (SRH) was measures in DWECS using a single question: 'How do you rate your health in general?' with five response options ('very good', 'good', 'fair', 'poor', 'very poor'). In the analyses the categories poor and very poor were collapsed into one category: 'poor'. In HAKuL the response options where 'excellent', 'very good', 'good', 'fair', 'poor' and in the analyses 'excellent' and 'very good' were collapsed into one category 'very good'.

Work ability

Work ability was measured with one question on self-rated work ability score on a scale ranging from 0 to 10, a measure previously used in cross country comparisons of sickness absence.[32] The respondents were asked to rate their work ability between 0 ('cannot work at all') and 10 ('has never been better') according to the question: 'Consider that your work ability was rated 10 when it was best. How would you rate your current work ability?'

Analysis

Initial χ^2 test was performed to identify potential differences in distribution of dependent and independent variables in the two sub-cohorts. To establish which factors were significantly associated with the outcome in the two sub-cohorts, country stratified logistic regression analysis was performed, yielding mutually adjusted odds ratios (ORs) with 95% confidence intervals (95% CIs) for each independent variable within Sweden and Denmark. Finally, logistic regression analysis was performed on the total data set consisting of the Swedish and Danish sub-samples to study differences in sickness absence levels between the two sub-cohorts. This part of the analysis was done in eight steps, adjusting the 95% ORs with CI 95% as follows: (i) Gender and age, (ii) Gender, age and occupational skill level, (iii) Gender, age, occupational skill level and lifestyle factors, (iv) Gender, age, occupational skill level and psychosocial work environment factors, (v) Gender, age, occupational skill level and physical work environment factors, (vi) Gender, age, occupational skill level and musculoskeletal symptoms, (vii) Gender, age, occupational skill level and self-rated health and (viii) Gender, age, occupational skill level and work ability.

Results

The Swedish sub-cohort consisted of relatively more women, and the mean age was higher, compared to the study participants from Denmark. There were certain variations with regards to composition of occupations, but the overall picture was similar in the two countries, where *personal and protective service workers* (including health care personnel) and *teaching professionals* totalled roughly 50% of both sub-cohorts. More subjects from the Swedish study population than from the Danish reported more than 7 days of sickness absence (table 1).

There were significant differences on all variables related to lifestyle, health and work environment in the two countries: more Danish study participants had a normal BMI, whereas more Swedish study participants than Danish study participants tended to be overweight or obese. More Danish study participants tended to be underweight. Smoking was more pronounced among Danish study participants, who on the other hand tended to be more physically active. More Swedish study participants complained about musculoskeletal symptoms in neck, low back or knees. More Danish study participants than Swedish study participants reported high-quantitative demands and low-decision authority, whereas low-management quality was reported profoundly more often in Sweden. More Swedish study participants reported working positions straining the back and having heavy lifting, whereas work postures implying having arms lifted above shoulder height was reported more often among the Danish study participants. Danish study participants scored higher on self-rated health and work ability scores (table 2).

Similar patterns for causes for sickness absence were observed in the two countries. There was an increased risk associated with BMI above normal. The risk associated with overweight was not significant in Denmark, and the association with underweight was not significant in either country. Both former and current smoking was associated with absence in both countries, seemingly more pronounced among the

Table 2 Frequency of exposure levels and differences between Sweden and Denmark

	Sweden *n* (%)	Denmark *n* (%)	*P*-value
Body mass index			
Underweight	6.21	11.44	<0.0001
Obesity	10.10	6.44	
Overweight	32.14	26.63	
Normal	51.55	55.49	
Smoking			
Smokers	26.90	35.41	<0.0001
Ex-smokers	26.54	23.72	
Non-smokers	46.56	40.87	
Physical activity			
Passive	15.51	11.83	0.0002
Active	84.49	88.17	
Work environment			
Quantitative demands (High)	19.47	32.92	<0.0001
Decision authority (Low)	66.4	78.72	<0.0001
Management quality (Low)	29.99	5.63	<0.0001
Extreme bending of back (Yes)	68.63	48.5	<0.0001
Work w. arms above shoulder (Yes)	32.89	37.48	0.0006
Lifting heavy loads (Yes)	49.98	34.98	<0.0001
Health			
Neck symptoms (Yes)	56.43	45.06	<0.0001
Low back symptoms (Yes)	56.09	51.63	0.0014
Knee symptoms (Yes)	30.42	26.27	0.0013
Self-rated health			
Poor	2.50	2.14	<0.0001
Fair	18.85	12.60	
Good	39.78	43.64	
Very good	38.87	41.62	
Work ability			
Low score(0–7)	28.59	11.1	<0.0001
Medium score(8–9)	47.06	46.36	
High score (10)	24.36	42.54	
Mean (SD)	8.0 (2.0)	8.8 (1.5)	

Danish study participants. Leisure time physical inactivity was associated with increased risk of sickness absence only among the Swedish study participants, whereas no association was found among the Danish study participants. This could possibly be due to small sample size. Musculoskeletal symptoms in the neck, low back or knees were associated with increased absence in both Sweden and Denmark. As was extreme bending of the back, working with arms lifted above the shoulders and lifting heavy loads. However, the two latter exposures were not significantly associated with increased absence in the Danish sub-cohort, possibly due to sample size issues. There was a strong association between self-rated health score and sickness absence, and workability score and sickness absence, both most pronounced among the Swedish study participants (table 3).

According to table 4, the differences in sickness absence could not be attributed to differences in occupational skill level composition in the two sub-cohorts. Inclusion of lifestyle factors also had no association with the excess absence in Sweden. In models including occupational skill level and psychosocial or physical work environment respectively, the sickness absence estimate was still significantly higher

Table 3 Sickness absence >7 days in relation to lifestyle, physical and psychosocial work environment and health status in Sweden ($n = 7022$) and Denmark ($n = 1540$), mutually adjusted OR with 95% CI

	Sweden			Denmark		
	n	Cases	OR (95% Ci)	*n*	Cases	OR (95% Ci)
Body mass index						
Underweight	427	125	1.18 (0.94–1.47)	180	48	1.17 (0.79–1.71)
Obesity	696	285	1.84 (1.55–2.19)	98	34	1.99 (1.25–3.17)
Overweight	2211	701	1.32 (1.17–1.48)	415	107	1.32 (0.99–1.76)
Normal	3545	919	1.00	859	187	1.00
Smoking status						
Current	1872	643	1.34 (1.18–1.52)	558	158	1.61 (1.22–2.13)
Former	1845	562	1.20 (1.06–1.37)	372	97	1.54 (1.12–2.11)
Never	3237	845	1.00	641	125	1.00
Physical activity						
Passive	1083	354	1.18 (1.02–1.36)	186	46	0.95 (0.66–1.37)
Active	5897	1710	1.00	1384	334	1.00
Neck symptoms						
Yes	3915	1343	1.62 (1.45–1.81)	708	198	1.39 (1.09–1.76)
No	3026	709	1.00	862	182	1.00
Low back symptoms						
Yes	3896	1323	1.58 (1.41–1.76)	806	235	1.69 (1.33–2.16)
No	3049	726	1.00	764	145	1.00
Knee symptoms						
Yes	2094	739	1.44 (1.29–1.61)	411	120	1.49 (1.14-1.93)
No	4801	1292	1.00	1159	260	1.00
Quantitative demands						
High	1361	454	1.28 (1.12–1.46)	512	128	1.16 (0.90–1.50)
Low	5637	1616	1.00	1057	251	1.00
Decision authority						
Low	4647	1331	0.92 (0.82–1.03)	1232	289	0.97 (0.72–1.30)
High	2343	734	1.00	337	89	1.00
Management quality						
Low	2059	653	1.18 (1.05–1.32)	88	32	1.68 (1.05–2.69)
High	4803	1367	1.00	1469	343	1.00
Extreme bending of back						
Yes	4785	1502	1.26 (1.10–1.43)	758	210	1.34 (1.04–1.73)
No	2185	558	1.00	810	169	1.00
Working with arms above shoulders						
Yes	2292	813	1.43 (1.27–1.60)	585	167	1.26 (0.98–1.63)
No	4675	1244	1.00	984	213	1.00
Lifting heavy loads						
Yes	3480	1127	1.13 (1.00–1.28)	543	150	1.21 (0.93–1.58)
No	3494	931	1.00	1003	2241	1.00
Self-rated health						
Poor	175	127	12.94 (9.11–18.38)	33	22	9.25 (4.25–20.14)
Fair	1325	658	4.75 (4.08–5.52)	198	77	2.99 (2.07–4.30)
Good	2790	841	2.16 (1.89–2.46)	688	155	1.26 (0.96–1.65)
Very good	2728	445	1.00	653	126	1.00
Work ability						
0 (lowest)	100	93	69.45 (31.75–151.91)	4	4	* (*)
1	23	20	42.43 (12.39–145.32)	2	2	* (*)
2	43	37	37.00 (15.34–89.24)	4	4	* (*)
3	89	55	9.24 (5.86–14.58)	7	3	3.24 (0.69–15.15)
4	101	58	7.53 (4.93–11.49)	11	4	2.47 (0.66–9.23)
5	394	212	6.19 (4.86–7.89)	34	14	2.96 (1.41–6.21)
6	352	189	6.55 (5.09–8.44)	21	10	3.80 (1.48–9.73)
7	872	329	3.46 (2.85–4.20)	85	25	1.94 (1.14–3.30)
8	1705	483	2.24 (1.88–2.66)	333	93	1.81 (1.30–2.51)
9	1543	311	1.45 (1.21–1.75)	369	86	1.36 (0.99–1.87)
10 (highest)	1683	257	1.00	644	118	1.00

Table 4 Risk (OR and 95% CI) for sickness absence in Sweden vs. Denmark adjusted for other risk factors

OR (95%CI)	Adjusted for
1.26 (1.11–1.43)	Age, gender
1.22 (1.07–1.39)	Age, gender, occupational skill level
1.25 (1.10–1.43)	Age, gender, occupational skill level, lifestyle factors
1.19 (1.04–1.37)	Age, gender, occupational skill level, psychosocial work environment
1.18 (1.03–1.35)	Age, gender, occupational skill level, physical work environment
1.15 (1.01–1.31)	Age, gender, occupational skill level, musculoskeletal symptoms
1.18 (1.03–1.34)	Age, gender, occupational skill level, self-rated health
0.92 (0.80–1.06)	Age, gender, occupational skill level, work ability score

in Sweden. Musculoskeletal symptoms or self-rated health score did not affect the difference either. However, the introduction of work ability score in a model also containing the effects of age, gender and occupational skill level, caused the differences between to two countries to become statistically insignificant (table 4).

Discussion

More Swedish study participants than Danish study participants reported more than 7 days of sickness absence. Causes for sickness absence were largely similar in the two countries: BMI above normal (Sweden only), former and current smoking, leisure time physical inactivity (Sweden only), musculoskeletal symptoms in the neck, low back or knees, extreme bending of the back, working with arms lifted above the shoulders (Sweden only) and lifting heavy loads (Sweden only) and low self-rated health score all increased the risk of sickness absence. The difference in absence level between Sweden and Denmark was not associated with differences in composition gender, age, skill level, lifestyle, psychosocial or physical work environment, musculoskeletal symptoms or self-rated health, whereas taking into account differences in work ability score caused the differences between to two countries to become statistically insignificant.

Design

This is the first cross national study addressing causes of sickness absence among public sector employees in Sweden and Denmark, and furthermore the only study addressing the underlying causes for this difference. One should take the following study limitations into account, when interpreting the results: Firstly, methods of selection into the two national cohorts differ: In Denmark, study participants were randomly drawn from the Central Population Register, and are representative for all employees working in the municipal sector in Denmark. In Sweden, the selection of participants was not random but was based on interest from the employing municipalities to participate in the project. This could theoretically select municipalities with focus on, and resources for, employee absence. However, we do not think that this has resulted in a selection of workplaces that either functioned very well or had a lot of problems and the authors do not think it likely that this affects the conclusions of the present study.

Although the questions from both Denmark and Sweden originated from the same validated instruments used in several other investigations we are aware that the wording in some of the questions somewhat differed slightly. However, we do not think that this should affect the results to a great extent but it should be taken into account when interpreting our results.

The study utilizes a cross-sectional design which provides information about a possible association between the exposures and sickness absence but not about the direction of a possible cause–effect relation. If the reporting of lifestyle, work environment and health related factors are affected by the level of sickness absence this could lead either to an over or an underestimation of the associations, whereas the impact on the analysis of the international sickness absence difference is assumed to be minimal. This is also the case with the bias potentially caused by common method variance due to gathering exposure and outcome data with the same data source. We recognize that this study only covers a small array of factors known to affect sickness absence, leaving considerable room for residual confounding.

The categorization of sickness absence should be commented upon: The dichotomization around 7 days does not specifically capture the aspects associated with the longest sickness absence cases. The dichotomization was chosen because of the small sample size for the Danish subpopulation. It was not possible to establish useful (sufficiently large) categories of subjects with long-term sickness absence in the Danish sample. We used the dichotomization around 7 days, as this has been used in other previous studies,[40] as this identifies the quartile (roughly) with most sickness absence.

With regard to the use of self-reported data on sickness absence to establish outcome only a few studies feature comparisons of self-reported data on sickness absence and data from employer records.[33–38] Some of these studies are based on small populations within specific occupations (coal miners, office and production work[33–36]) and two studies focus on sickness absence due to back pain.[33,34] Nearly all report a high specificity of a single question for detecting workers sickness absence but one author suggests not using a recall period of more than 2 months.[35] Two more recent studies based on larger cohorts have compared the total number of retrospectively self-reported sickness absence days for 12 months with register data for the same period from the employers' registers on sickness absence irrespective of diagnoses. Both studies concluded that there were a relatively good agreement between self-reported and register data on sickness absence and that self-reported information can be useful when no information from employers' registers are available.[37,38] In relation to the present study there is no reason to believe, that any possible systematic over or underestimation of sickness absence should differ between to two sub-cohorts.

Finally, we cannot rule out that the different data collection methods (self-administered questionnaire in Sweden, telephone interview in Denmark) can affect the reporting of items. A recent study by Feveile and colleagues has found this to be the case for certain measures of health.[39]

Other studies

Previous studies have found larger differences in sickness absence between the two countries.[3,4] These differences might be partly due to differences in data collection methods, partly the fact that this study only focuses on employees in the municipal sector, and, lastly, the selection criteria for this study: We only included those in work. This implies that people with an ongoing case of long-term sickness would not be included in the present study.

To our knowledge no other studies have examined possible differences of sickness absence between Denmark and Sweden

and to what degree these differences could be attributed to by gender composition, work environment, lifestyle, global self-rated health or work ability. A recent cross-sectional study of associations between ill health, unemployment and retirement has shown a related trend: Ill health seemed to be unrelated to unemployment in Sweden, whereas there was a significant association in Denmark.[40]

Conclusion

The difference in absence level between Sweden and Denmark was not associated with differences in job level composition, lifestyle factors, psychosocial or physical work environment, musculoskeletal symptoms or self-rated health, whereas taking into account differences in work ability score caused the differences between to two countries to become statistically insignificant. This could indicate an increased retention of employees with health problems in the Swedish labour market compared to the Danish labour market. As suggested by Alavinia and Burdorf,[40] a possible explanation for the differences in sickness absence ascertained in this study could be explained by differences in legislation: Sweden practises an active labour policy that increases the opportunities for people with chronic illness to remain in work, implying that Swedish employees are protected against dismissal during sickness absence, whereas this is not the case in Denmark.

Key points

- Sickness absence is a major public health problem in both Sweden and Denmark.
- Especially employees in the municipal sector contribute disproportionally to sickness absence in both countries.
- No studies have investigated the underlying causes for cross country differences in sickness absence in Sweden and Denmark.
- The present study found that study participants from Sweden had more sickness absence than those from Denmark, and that causes for sickness absence were largely similar in the two countries. Differences in sickness absence were not due to differences in gender, age, skill level, lifestyle, work environment or health, but were associated with differences in work ability score.
- The study indicates that the higher sickness absence level in Sweden could be due to increased retention of employees with health problems.

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