

Job satisfaction and intention to quit the job

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Background	Negative psychosocial work conditions may influence the motivation of employees to adhere to their job.
Aims	To elucidate the perception of psychosocial work conditions among Danish hospital employees who would quit their job if economically possible and those who would not.
Methods	A cross-sectional questionnaire study of hospital employees. The questionnaire gave information on elements of the psychosocial work environment (job demands, job influence, job support, management quality, exposure to bullying), general health status, sick-leave during the preceding year, life style (leisure time physical activity, alcohol intake and smoking habits), age, sex and profession.
Results	There were 1809 participants with a response rate of 65%. About a quarter (26%) reported that they would quit their job if economically possible; this rose to 40% among the 17% who considered their health mediocre or bad. In a final logistic regression model, six factors were identified as independently associated with the wish to quit or not: self-assessed health status, meaningfulness of the job, quality of collaboration among colleagues, age, trustworthiness of closest superior(s) and exposure to bullying. Based on these factors it was possible to identify groups with fewer than 15% wishing to quit, and similarly, groups where 50% or more would quit if this was economically possible.
Conclusions	Psychosocial work conditions, in particular meaningfulness of the job, were independently associated with intention to quit the job if economically possible and relevant within different job categories.
Key words	Economy; health status; psychosocial work quality; retirement intention.

Introduction

With ageing populations in developed countries, due to an increase in life expectancy and low birth rates, the ratio of young people to old people (the dependency ratio) is gradually decreasing. Thus the proportion of gainfully employed people relative to those receiving money from social security systems and retirement funds is also decreasing as discussed in a 2008 paper on early retirement intentions among Belgian nurses [1]. This may over time be a threat to the very structure of society, and despite the presently high youth unemployment, the tendency in European and other western societies has been to raise the statutory retirement age, and to otherwise encourage people to postpone their age of withdrawal from the labour market.

Although the literature on the subject of retirement intention specifically is relatively limited, it has been shown repeatedly that adverse psychosocial workloads are associated with an increased wish for early retirement [1–10]. In order to identify which occupational

psychosocial factors may be the most important in motivating people to continue working or the opposite, at least two conditions may play a major role: health status and economic necessity. These conditions may heavily influence the interpretation of studies trying to elucidate the association of psychosocial work conditions and actual retirement.

In a recent study on job satisfaction at a Danish hospital, questions were asked covering occupational psychosocial elements and factors related to individual life style (smoking habits, alcohol intake and physical activity). In the context of the present paper, two important pieces of information were available: study participants were able to report on their health status on a graded scale, and study participants were asked if they would quit their job if it was economically possible.

We hypothesized that elements of the perceived psychosocial work environment, irrespective of job category, would be associated with the intention to quit one's work if it was economically possible and that the association could not be explained by health status or sex.

Methods

Data collection was performed by use of electronic or paper questionnaires. All employees belonging to the permanent staff in Bispebjerg University Hospital (BBH) were invited to participate in a survey. Permanent employment was defined as having the salary paid monthly. The survey was conducted during the period from 13 January 2009 to 16 March 2009. If the employee had not responded within a week, a reminder was sent. We have no information on how many reminders were sent, since we did not receive the database until after it was established. However, the authors were fully informed on how employees had been strongly encouraged to participate by the hospital administration prior to the survey. Access to the full database was allowed only to the company UNI-C, the Danish IT Centre for Education and Research. For the analyses, this organization passed on the database in anonymized form to the Department of Occupational and Environmental Medicine at BBH. The questionnaire gave information on elements of the psychosocial work environment (job demands, job influence, job support, management quality, exposure to bullying), general health status, sick leave during the preceding year, life style (leisure time physical activity, alcohol intake and smoking habits), age, gender and profession of the participants.

The question on intention to quit the job was phrased as a statement: 'If I had the economic opportunity to do so, I would quit my job.' Answer options were 'yes' and 'no'.

According to Danish law, ethical approval is not required for an anonymized questionnaire study.

Multiple logistic regression analyses were used when analysing the association of single items with the intention to quit the job if economically possible, taking into

account age and/or sex (Tables 1–3). For the final analysis (Table 4), multiple logistic regression analysis was used with stepwise backward elimination, allowing variables with $P < 0.10$, the program default, to remain in the model. For all analyses we used SPSS for Windows version 18 (SPSS for Windows, Release 18.0 2009. Chicago, IL, USA: SPSS Inc.). To ascertain goodness-of-fit we used the Hosmer-Lemeshow test [11].

Results

Altogether, 2802 members of the permanent staff were drawn from the salary administration database; 1809 individuals returned completed questionnaires, corresponding to an overall response rate of 65%. Analysing available information on responders and non-responders showed small differences with respect to age and gender, but craftsmen and unskilled workers and nurses' aides had a lower response rate than other job categories (~47%); 1782 employees (99%) had answered the question on whether they would quit their job, and 26% (469) employees reported that they would quit their job if it was economically possible to do so. The proportions of employees in the different job categories who would quit their job if economically possible were as follows: physicians (17%), administrative personnel (25%), nurses (23%), nurses' aides (36%), therapists and technicians (31%) and craftsmen and unskilled workers (35%). These rates did not change materially with adjustment for age and sex.

Table 1 shows socio-demographic, lifestyle and health characteristics of those who would quit their work if it was economically possible and those who would not. Those who wanted to quit (quitters) were slightly older

Table 1. Socio-demographic, lifestyle and health characteristics of those who would quit their job if economically possible and those who would not

	Would quit <i>n</i> = 469	Would not quit <i>n</i> = 1313	Age and/or sex-adjusted OR (95% CI)
Socio-demographic factors			
Age	44.9 ± 11.1	42.6 ± 11.3	1.21 (1.10–1.34)
Male sex, %	28	24	1.13 (0.89–1.45)
Lifestyle factors			
Current smokers, %	28	26	0.87 (0.66–1.15)
Alcohol, beverages/week, men only	9.3 ± 8.6	7.2 ± 6.9	1.03 (1.01–1.06)
Alcohol, beverages/week, women only	3.8 ± 4.7	3.1 ± 4.4	0.97 (0.94–0.99)
Low leisure time physical activity <4 h/week, %	75	67	1.48 (1.15–1.90)
Health factors			
Health considered mediocre/bad, %	27	14	2.25 (1.73–2.92)
Sick leave, number of days preceding year	13.2 ± 24.5	9.9 ± 20.6	1.006 (1.001–1.01)
BMI, men only	25.6 ± 3.6	25.1 ± 3.3	1.04 (0.98–1.11)
BMI, women only	24.1 ± 4.1	23.6 ± 4.1	1.03 (0.99–1.06)

OR, odds ratio.

Values presented are mean (standard deviation) or frequency in per cent.

Table 2. Psychosocial work characteristics of those who would quit their job if economically possible and those who would not

	Would quit <i>n</i> = 469	Would not quit <i>n</i> = 1313	Age and sex-adjusted OR (95% CI)
Work demands			
Quantitative			
Is it necessary to work very fast? Always/often, %	63	58	1.17 (0.94–1.46)
Is your work irregular and piling up? Always/often, %	40	33	1.28 (1.02–1.60)
How often are you unable to finish your work tasks? Always/often, %	28	25	1.15 (0.91–1.47)
Cognitive			
Does your job demand you to get good ideas? Always/often, %	59	67	0.70 (0.56–0.88)
Emotional			
Does your work bring you into emotional situations? Always/often, %	19	14	1.37 (1.03–1.82)
Are you emotionally touched by your work? Always/often, %	18	14	1.32 (0.99–1.77)
Does your work require that you hide your feelings? Always/often, %	22	17	1.32 (1.00–1.73)
Work control			
Decision latitude			
Do you have much influence on decisions at your work? Always/often, %	39	49	0.63 (0.50–0.78)
Do you have influence on your amount of work? Always/often, %	13	18	0.67 (0.49–0.92)
Do you have influence on your work tasks? Always/often, %	32	42	0.61 (0.49–0.77)
Do you consider your job meaningful? To a high or very high degree, %	71	84	0.46 (0.35–0.59)
Work support			
Is your closest superior good at solving conflicts? To a high or very high degree, %	29	38	0.68 (0.54–0.86)
How often do you receive support from other co-workers? Always/often, %	62	66	0.88 (0.70–1.11)
How often do you receive support from your closest superior? Always/often, %	37	44	0.79 (0.63–0.99)
How often do you speak with your colleagues about how well you perform your work? Always/often, %	19	24	0.80 (0.62–1.05)
How often do you speak with your superiors about how well you perform your job? Always/often, %	12	17	0.73 (0.54–1.01)
Is the collaboration among colleagues at your work place good? To a high or very high degree, %	61	73	0.59 (0.47–0.74)
Have you been exposed to bullying within the last year? % yes	12	6	1.86 (1.28–2.69)

Answer options were modified (dichotomized) from questionnaire options:

Frequency of exposure: (1) Always; (2) Often; (3) Sometimes; (4) Rarely; (5) Never/nearly never.

Degree of exposure: (1) To a very high degree; (2) To a high degree; (3) Partly; (4) Little; (5) Very little.

than those who would not quit (non quitters). No significant sex differences were observed.

With respect to life style factors no major differences were observed between potential quitters and non-quitters, although a statistically significant difference was found with respect to leisure time physical activity, with less physical activity reported and also a slightly higher consumption of alcohol among potential quitters.

Self-assessed health was significantly rated as mediocre or bad more often among quitters, who also had a higher sickness absence in the preceding year. Finally, potential quitters had a higher BMI (0.5 units) than non-quitters, a difference statistically significant among women.

Table 2 shows ‘psychosocial work characteristics’ of those who would quit their job if economically possible and those who would not. With respect to work demands small differences were observed between quitters and non-quitters. Only one item was clearly different—whether job demands included coming up with good ideas always or often; the quitters reported that this

was less frequently necessary, probably reflecting low influence.

With respect to work control, quitters reported significantly lower decision latitude than non-quitters.

Regarding work support, three items were clearly significantly different between quitters and non quitters: closest superior being good at solving conflicts, good collaboration among colleagues and having been exposed to bullying.

Table 3 shows how ‘quality of management’ was assessed among those who would quit their job if economically possible and those who would not. With respect to assessing quality of management, management quality was rated lower by quitters than non-quitters with respect to all items included in this Table.

Table 4 shows determinants of intention to quit if economically possible. The multiple logistic regression analysis included factors from Tables 1–3, which were significantly associated with the outcome (would quit/would not) following logistic regression analysis. Among

Table 3. Assessed quality of management among those who would quit their job if economically possible and those who would not

	Would quit <i>n</i> = 469	Would not quit <i>n</i> = 1313	Age and sex-adjusted OR (95% CI)
Does your closest superior keep his/her promises? To a high or very high degree, %	46	59	0.57 (0.46–0.71)
Are you treated as an equal independent of your job function, sex, age, ethnic background, etc.? To a high or very high degree, %	74	85	0.55 (0.42–0.71)
Are the employees treated with respect by their superiors? To a high or very high degree, %	53	66	0.59 (0.47–0.73)
Do you consider the superiors mentioned below competent to lead within their field of responsibility? To a high or very high degree, %			
Your closest superior	54	67	0.64 (0.51–0.80)
The superior for your area/function	49	65	0.65 (0.53–0.81)
Your department management	53	67	0.59 (0.47–0.73)
Hospital management ^a	44	61	0.51 (0.38–0.67)
Do you consider the superiors mentioned below good at communicating with the employees? To a high or very high degree, %			
Your closest superior	46	58	0.64 (0.52–0.80)
The superior for your area/function	40	52	0.63 (0.50–0.78)
Your department management	37	47	0.66 (0.53–0.82)
Hospital management ^a	28	39	0.61 (0.45–0.83)

Answer options were modified (dichotomized) from questionnaire options:

Degree of exposure: (1) To a very high degree; (2) To a high degree; (3) Partly; (4) Little; (5) Very little.

^aSubjects reporting 'don't know' (~35%) were excluded from the analysis.

the 10 factors included in this final analysis, six remained in the model following backward elimination of variables. Taking into account also job categories in the analysis had no material influence on the strength of covariates for intention to quit (not shown). These six factors may, when added up, be used as an index for determination of intention to quit the work if economically possible and,

Table 4. Covariates of intention to quit work if economically possible versus no intention

	Odds ratio (95% CI)
Self-assessed good health versus not	0.49 (0.37–0.65)
Considers work meaningful (to a high/very high degree versus less)	0.51 (0.39–0.68)
Collaboration among colleagues at the work place is good (to a high/very high degree versus less)	0.73 (0.57–0.94)
Age, years	
≤30	1 ^a
31–40	1.26 (0.87–1.81)
41–49	1.29 (0.88–1.88)
50+	1.70 (1.19–2.43)
Closest superior(s) keeps promises (to a high/very high degree versus less)	0.75 (0.59–0.95)
Exposed to bullying preceding year, no versus yes	0.68 (0.46–1.02)

Multiple logistic regression analysis including factors from Tables 2–4, which were significantly associated with the outcome following logistic regression analysis.; variables are presented according to strength of association with the outcome following multivariable adjustment.

Excluded from the final model, $P > 0.10$: gender; influence on work tasks; equal treatment independent of job function, gender, age, ethnic background, etc.; communication from closest superior.

^aReference category.

correspondingly, lack of such an intention. The association of this index with intention to quit work is illustrated in Figures 1a,b and 2.

As seen in Figure 1a, including all study participants among those without adverse psychosocial conditions, fewer than 15% wished to quit, and among those with four or more adverse conditions, ~50% wished to quit.

Figure 1b shows the result of a similar analysis broken down according to profession. The largest two groups with the same basic education within each group were the nurses and the doctors, so for the purpose of illustration we present nurses, doctors and others (comprising nurse's aides, administrators, craftsmen, unskilled workers and allied health professionals (radiographers, laboratory workers, etc.)). The ability of the identified factors to distinguish between employees wishing to quit their job and others was quite similar within even smaller subgroups of job categories (not shown).

Figure 2 demonstrates the association between psychosocial work conditions index and intention to quit the job among study participants with self-reported good health and among those reporting a suboptimal or even bad health. A graded trend was found for both groups with a generally more pronounced wish to quit if possible among those in suboptimal health. Even with a clustering of good psychosocial work quality (and young age, i.e. <50 years) ~30% in this group would quit compared with <15% among employees in good health. More than 50% would quit if they had a clustering of three to five of the adverse factors, including the age.

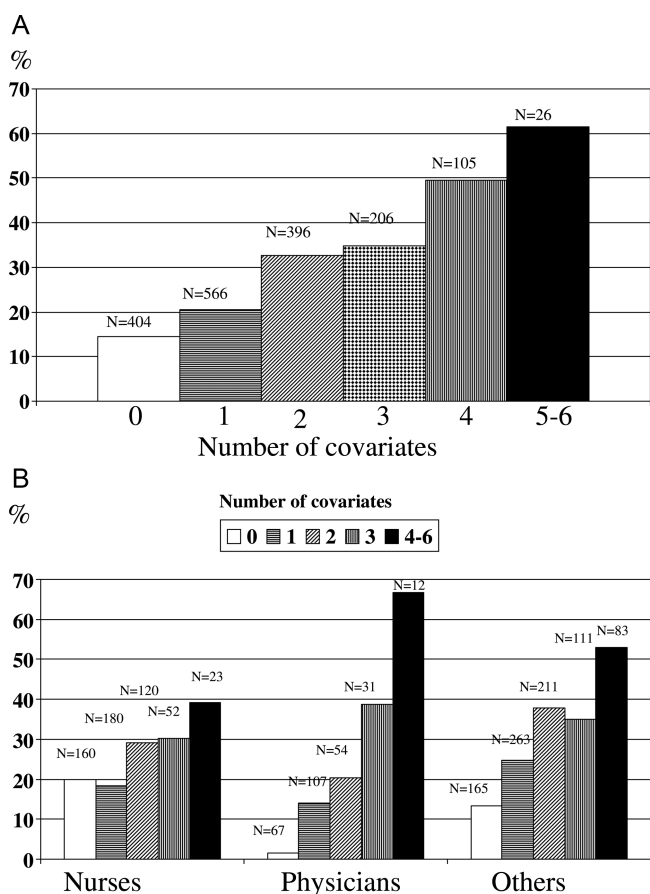


Figure 1. Prevalence of intention to quit the job if economically possible according to clustering of covariates identified in Table 4: (1) self-assessed health; (2) meaningful work; (3) collaboration among colleagues; (4) age (below or above 50); (5) trustworthiness of closest superior(s); (6) exposure to bullying.

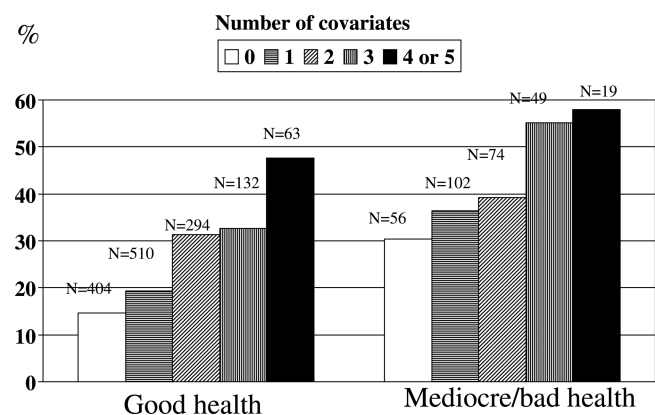


Figure 2. Prevalence of intention to quit the job if economically possible according to self-assessed health status and clustering of other covariates identified in Table 4: (1) meaningful work; (2) collaboration among colleagues; (3) age (below or above 50); (4) trustworthiness of closest superior(s); (5) exposure to bullying.

Discussion

As hypothesized, exposure to perceived psychosocial risk factors at work was clearly associated with the intention

to quit the job, if this intention was not moderated by economic considerations; the associations could only in part be attributed to health status and gender differences. In fact, differences between male and female employees were generally small and not statistically significant in any of the analyses. Furthermore, adverse psychosocial exposures were relevant determinants of intention to quit irrespective of job category. The psychosocial factors were quite strong relative potential determinants or covariates of the intention to quit the job as seen in Table 4. When these determinants clustered, the absolute ‘risk’ of reporting an intention to quit work, increased from approximately 15% among those without risk factors to more than half of the employees among those who had five to six of the covariates. With respect to the physician group, only 1 of 67 employees would quit working if none of the adverse conditions were present. The number of physicians who clustered four to six adverse conditions was small ($n = 12$). However, eight (65%) would quit working if economically possible.

Among quantitative work demands (Table 2) only work assessed as irregular and piling up was associated with the intention to quit. Among cognitive and emotional work demands all single items were associated with the intention to quit. Questionnaire items assessing work control were all significantly associated with intention to quit, with a particularly strong association found for perceived meaningfulness of the job. In contrast, questionnaire items on work support varied in their strength of association with intention to quit. Statistically, in this category, the strongest associations with intention to quit were found for the questions: ‘is your closest superior good at solving conflicts?’ ‘is the collaboration among colleagues good?’ and ‘have you been exposed to bullying?’

All questionnaire items assessing quality of management were strongly, and statistically significantly, associated with the intention to quit (Table 3). High quality management was associated with a reduction of nearly 50% of reporting an intention to quit.

The final model (Table 4) may be regarded as the identification of the most relevant adverse psychosocial work conditions associated with the intention to quit work in this study. Apart from age, four occupational factors were independently associated with intention to quit and nearly as strongly associated herewith as self-assessed health status. As illustrated in the figures, on the basis of these few factors, it was possible to identify groups with a high inclination to quit if economically possible. In an additional analysis (not shown) we looked at full-time employees and part-time employees separately. The clustering of these same factors as shown in Figure 1a were associated with intention to quit in both groups. Among full-time employees (72% of the population), 11% would quit if they had no covariates increasing to 52% among those with five to six covariates. Among part-time workers the corresponding figures were 24% increasing to approximately 50%.

Assuming that the identified factors are universally valid among working employees, the factors might be used as a tool for monitoring the quality of the psychosocial working environment. Because this method is simple and cheap, such monitoring could easily be applied on a regular basis in different workplaces. Furthermore, several of the factors identified in this study as potential determinants of intention to quit work have previously been found relevant also as predictors of sickness absence [12,13].

A cross-sectional study cannot establish causation or the direction of associations between exposures and outcomes, i.e. reverse causality may exist. Employees answering that they wanted to quit their job may have certain personality traits or may be negative towards the work place in general. Accordingly, such employees may respond more negatively to questions about their psychosocial work conditions. Thus, there is a risk of circular argumentation when trying to establish the direction of causality. However, even so, the associations found are relevant for the employees, because they reflect their perception of the psychosocial work environment. If reverse causation explains much of the associations found, an improvement of the psychosocial work environment may have a limited effect. However, the Finnish longitudinal study by von Bonsdorff *et al.* [4] indicated that low satisfaction and negative perceptions about work was less pronounced among employees still working 11 years later compared with those retired either because of disability or because of old age. This, of course, does not disprove the possibility of reverse causality in our study.

Another methodological problem in observational studies may be bias, in particular related to selection, measurement and confounding. In this study some selection bias may have influenced the results because of non-respondents. The overall response rate was ~65% but among some groups as low as 47%. The ability of the identified factors to discriminate between groups with a high or a low proportion of employees who would quit their work was, however, strong, irrespective of profession. However, it cannot be excluded that some selection bias has influenced the association between the outcome and the covariates. At least if the response rate, high or low, was itself associated with intention to quit the job. Whether this is the case is unknown.

All information related to psychosocial work conditions, life style and health status were based on self-report with the inherent risk of some misclassification. Since a vast majority of Danish hospital employees are able to give answers to a questionnaire, and that the associations found between work conditions and intention to quit were comparable between highly educated study participants and others, measurement bias must be considered a minor problem when assessing the perceived psychosocial work conditions as covariates of intention to quit.

In order to minimize confounding bias and residual confounding, multivariate analysis was used, taking into account the correlation between work conditions, the impact of lifestyle and health conditions. Multivariate analysis in a cross-sectional study, like the present one, was considered the best method for confounder control, since a number of dependent variables were analysed.

Considering the high impact of health and personal economic situation for actual retirement, these factors may blunt the relationship between psychosocial work environment factors and retirement in observational studies using actual retirement as an endpoint. So a study like this using intention to quit one's job without hindrance by economic considerations as an endpoint may have the advantage that the impact of this major confounder is minimized. However, results from studies on *de facto* retirement may identify a broader spectrum of 'risk factors' for retirement, occupational as well as others. For example, it has been shown that being a current smoker is a strong predictor of retirement [14]. In the present study, the intention to quit was practically the same among smokers and non-smokers. So the hypothetical question on intention to quit used in this study may be a cheap and easily applied method as a measurement tool for not only identifying individuals who would like to quit their job but also evaluating the psychosocial quality of a given work or workplace. In addition, a study like this may identify which of the many psychosocial factors included have the strongest association with the wish of quitting one's job if economically possible.

In the literature addressing determinants of intention to quit the job, the idea of identifying a few core determinants capable of distinguishing between groups likely to leave their job and those not so inclined to do so is, to our knowledge, lacking.

The results of this paper indicate that it may be possible to screen the overall quality of the psychosocial working environment by applying the following four questions: 'Do you consider your job meaningful?', 'Is the collaboration among colleagues at your work place good?', 'Does your closest superior keep his/her promises?' and 'Have you been exposed to bullying within the last year?'

Key points

- In a large population of work active hospital employees approximately one in four would quit their job if this was economically possible.
- Intention to quit the job was clearly associated with job category but not with the sex of the employee.
- Perceived suboptimal health and dissatisfaction with the psychosocial work quality were strongly associated with the intention to quit.

Conflicts of interest

None declared.

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