

Job Boredom and Its Correlates in 87 Finnish Organizations

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Objective: To investigate the correlates of job boredom in 87 Finnish workplaces ($N = 11,468$) and to examine the associations between job boredom, health outcomes, and job attitudes. **Methods:** We applied the Dutch Boredom Scale to measure job boredom. Hierarchical logistic regression analysis and odds ratio estimates were used for further examination of the variables. **Results:** Male, under-36-year-old employees and employees working in transportation, manufacturing, arts, recreation, and entertainment experienced the most job boredom. Job boredom increased the likelihood of employees' turnover and early retirement intentions, poor self-rated health, poor workability, and stress symptoms. **Conclusions:** Job boredom is a phenomenon that concerns a wide range of industries. We found a clear association between job boredom and negative health- and work-related perceptions. The results support the notion that job boredom can be harmful to employee health.

Being physically present but unmotivated at work and not using one's full potential can become costly for organizations and may also be harmful to employees' health. Job boredom is characterized by passiveness, a lack of interest in tasks in a given situation, and an inability to concentrate.¹ Consequently, a prolonged state of job boredom may offset an array of negative consequences, such as depressive symptoms, drug and alcohol abuse, and decreased job satisfaction and job performance.² Therefore, job boredom deserves more attention than it has received thus far. Indeed, over recent decades, it has attracted much less attention than other work-related affective-motivational states, such as job satisfaction, work engagement, and burnout. Thus, we still lack a comprehensive understanding of who experiences job boredom, and how it is related to employees' health- and work-related attitudes. This study among 11 468 Finnish employees aims to address these issues by investigating whether there are differences in the levels of job boredom between various demographic and occupational groups. In addition, we examine the relationships between job boredom and several health- and work-related outcomes in a wide spectrum of modern working environments to explore the potentially harmful effects of job boredom.

WHAT IS JOB BOREDOM AND WHO ARE AFFECTED?

Job boredom can be described as an unpleasant state of low arousal and dissatisfaction caused by a work situation that does not offer adequate stimulation.³ In the field of work and organizational psychology, job boredom is often defined through state or trait components. State boredom refers to a more transient occurrence, which is affected by the environment, whereas the latter refers to a more stable characteristic inherent to a personality.⁴ Here, we are interested in job boredom as an amotivational state at work, which can be either hindered or enhanced by features of the job or the work environment.

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Previous research indicates that the roots of state job boredom are far more complex than mere task monotony. Therefore, job boredom can be expected in a variety of jobs, irrespective of the presence of individual dispositions. Reijseger et al¹ applied the Job demands-resources model⁵ to identify the conditions under which job boredom might arise. They found that job boredom was associated with low job demands (workload and mental and emotional demands) and low job resources (autonomy and social support from colleagues and supervisors). More generally, job boredom is often thought to arise when employees feel that their tasks are not challenging.⁶ Nevertheless, it is important to note that the level of optimal job demands or valued job resources might vary according to the nature of the job and/or the individual's skills. For example, some authors suggest that higher education levels among employees might foster the experience of boredom, because employees' competences are likely to exceed the demands and challenges of the task.²

Furthermore, the relationship between job demands and job boredom might not be as linear as suggested by the literature that perceives job boredom as passiveness resulting from low stimuli in the environment. There is some evidence of excessively demanding tasks fostering boredom, as they lack tangible goals and, as such, purpose.⁷ Lack of meaning in work has also been recognized as a fundamental element in the experience of boredom.^{8,9} In addition to the ambivalence around the relationship between job demands and job boredom, there may also be ambiguity concerning job resources. For example, job autonomy may have different implications in present-day jobs to that in previous industrial working environments. Some argue that bureaucracy, the use of technology and control mechanisms (eg, constant reporting), typical in today's knowledge-intensive work, drain the meaning out of the work itself and, in effect, accelerate boredom.¹⁰ Thus, although employees might have formal autonomy in regard to their tasks, they may be bound by hindrances such as deadlines and time pressure, which limit the possibilities or desire to actually implement autonomy at work.

In sum, job boredom may be more prevalent in jobs low on challenge and variety, but also in conditions of high bureaucracy and control mechanisms that are not limited to low-skilled work. It is noteworthy that the demographic and occupational factors of job boredom have not been comprehensively investigated, although similar studies have been carried out on related constructs such as burnout¹¹ and workaholism.¹² Nevertheless, previous studies imply that job boredom is not a problem in only monotonous jobs; it can also be a frequent experience in various white-collar professions.^{13,14}

This study aims to scrutinize the commonly held assumptions concerning boring jobs and bored employees by exploring the prevalence of job boredom across demographic and occupational groups. Moreover, we contest the stereotype that job boredom is mostly experienced in industries characterized by low-skilled work and explore the possibility that job boredom is a phenomenon that can affect both blue- and white-collar industries.

WHY SHOULD WE CARE? THE POTENTIAL CONSEQUENCES OF JOB BOREDOM

The existing literature lacks consensus on what job boredom actually is and how it should be measured. Earlier studies, in particular, have not distinguished between the subjective experience of boredom and the work context in terms of monotonous, understimulating work environments,¹⁵ resulting in the perception of job

boredom as a synonym of routinization.¹⁶ Others, however, have referred to monotony and routines as causes of job boredom.¹⁷ Conceptualizing job boredom by its causes alone lays the risk of ignoring a number of serious consequences. For example, although routinization is also perceived as having positive effects, such as increasing creativity,¹⁶ job boredom is associated with mostly negative consequences.²

Recent research suggests that job boredom has an affective, cognitive, and behavioral component.¹ For example, bored employees may feel dissatisfied, have a distorted sense of time (standing still or moving slowly), and engage in distractions. Hence, for organizations, employee boredom might be both unproductive and counterproductive, because some studies associate it with employee misbehavior.¹⁸ Furthermore, a study on manufacturing workers found that job boredom was linked to higher job dissatisfaction and absenteeism.⁴ A more recent study on office workers also found a positive relationship between job boredom and turnover intentions.¹ These studies imply that job boredom is experienced in diverse working environments, and that it may also have negative organizational and individual consequences. Nevertheless, because of a lack of systematic research on the individual and organizational correlates of job boredom in different types of work environments, our understanding of job boredom, including its epidemiology, remains limited.

As Daniels¹⁹ points out, work-related psychological well-being has often been operationalized one-sidedly as job satisfaction. Affective well-being expands this narrow scope in understanding well-being as a frequent experience of positive affect and infrequent experience of negative affect.²⁰ In the domain of work, affective well-being has often been described as axes or factors of polar opposites: for example, Warr²¹ describes the principal dimensions for the assessment of well-being using three axes, ranging from displeasure to pleasure, from anxiety to comfort, and from depression to enthusiasm (see Fig. 1). The model illustrates how work-related well-being can be either more activated (ie, work engagement) or less activated (eg, job satisfaction), whereas unpleasant job-related affects can range from anxiety (ie, stress) to depression (ie, burnout). Following Daniels,¹⁹ we place job boredom—an unpleasant state of passiveness—at the negative end of both the deactivation–activation and displeasure–pleasure axes. Such a position locates job boredom as the polar opposite of enthusiasm. Indeed, some researchers have recently suggested that the phenomenon of boredom at work is the opposite to that of work engagement,¹² an activated and pleasant state of vigor, dedication, and absorption at work.²²

Similarly to job boredom, burnout, that is, a stress syndrome characterized by exhaustion, cynicism, and reduced professional efficacy,²³ can also be defined as a deactivated and unpleasant state. Nevertheless, boredom is more strongly related to the activation–deactivation axis, whereas burnout also strongly relates

to the pleasure–displeasure axis.¹ Although the consequences of other aforementioned states of well-being have been widely studied, the associations of job boredom remain less known. Thus, the second purpose of this study is to shed light on this gray area of employee well-being by examining the associations of job boredom with various health- and work-related attitudes.

METHODS

The data were collected in 2011. Either an electronic or a postal survey questionnaire was sent to a total of 20,333 employees, of which 11,468 responded, resulting in a 56.6% response rate. The sample consisted of employees of various occupations from 87 Finnish organizations representing different industrial sectors and geographical locations in Finland. Because of missing values, the study population varied between 11,046 and 11,226, depending on the analysis. The sample comprised 81% women and 19% men, and the mean age was 46.2 years (SD = 10.5 years). The majority of the respondents (87%) had a permanent employment contract, and 36% had a university degree. More than a third of the study population (35%) worked in the health and social work industry (see Table 1 for all demographics and Table 2 for occupational details). The characteristics of the sample were compared with those of the Finnish working population.²⁴ This comparison revealed that female employees (81% in the sample vs 49% in the general working population) as well as employees older than 45 years (60% vs 43%) were overrepresented in the sample, whereas employees aged 15–35 years were underrepresented (17% vs 32%). Weighting adjustment was used in the analyses to correct the possible bias caused by the overrepresentation of women and older age groups. After applying the weighting adjustment, the gender × age distribution of the sample was similar to that of the general total working population of Finland. Public sector employees in general and health and social work industry workers in particular were overrepresented in the study sample (34% in the sample vs 16% in the general working population). In addition, employees with higher university degrees were overrepresented (36% vs 13%). Thus, despite the heterogeneous nature of the sample, the distribution was not representative of the Finnish working population.

TABLE 1. Demographic Correlates of Job Boredom (N = 11,468)

	<i>N</i>	<i>M</i>	<i>SD</i>
Job Boredom			
Age, yr	$\eta^2 = 0.02, F_{4,1} = 61,342, P < 0.001$		
<36	2121	1.43	0.312
36–44	2381	1.16	0.690
45–50	2275	1.02	0.833
51–56	2370	0.93	0.959
>56	2079	0.87	0.831
Gender	$\eta^2 = 0.04, F_{1,1} = 443.467, P < 0.001$		
Men	2100	1.30	0.876
Women	9126	0.91	0.726
Education	$\eta^2 = 0.00, F_{3,1} = 10,522, P < 0.001$		
Comprehensive school	1058	0.97	0.924
Secondary school	2311	1.06	0.783
Vocational school	3724	0.95	0.768
University	4040	0.98	0.718

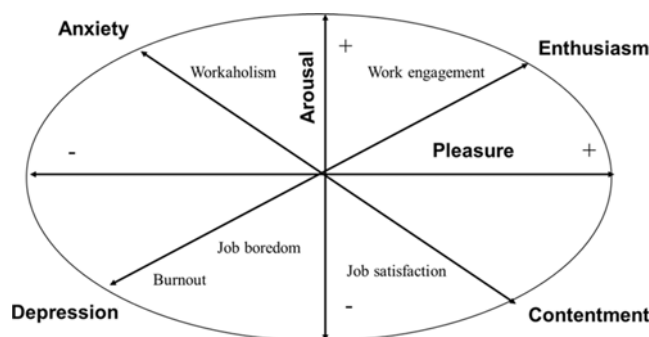


FIGURE 1. Dimensions of affective well-being (adapted from Warr²¹).

TABLE 2. Occupational Correlates of Job Boredom ($N = 11,468$)

	<i>N</i>	<i>M</i>	<i>SD</i>
Job Boredom			
Employment contract	$\eta^2 = 0.00, F_{1,1} = 1.749, ns.$		
Permanent	9692	0.98	0.794
Fixed-term	1515	0.95	0.603
Employee position	$\eta^2 = 0.02, F_{1,1} = 192.530, P < 0.001$		
Employee	10,158	1.02	0.771
Supervisor	1068	0.70	0.697
Industrial Sector	$\eta^2 = 0.03, F_{12,1} = 27.389, P < 0.001$		
Agriculture	52	0.98	0.771
Manufacturing	286	1.43	0.896
Construction	37	1.20	0.762
Transportation and storage	63	1.58	0.968
Information and communication	90	1.25	0.891
Financial and insurance activities	410	0.84	0.723
Professional, scientific and technical activities	864	1.15	0.853
Administrative and support service activities	300	1.01	0.803
Public administration and defense; social security	3497	1.00	0.796
Education	1168	0.96	0.794
Human health and social work activities	3946	0.88	0.669
Arts, entertainment, and recreation	116	1.46	0.922
Other service activities	397	1.07	0.752

Measures

Boredom at work was measured using the Dutch Boredom Scale,¹ which consists of six single-factor items measuring affective, cognitive, and behavioral manifestations of job boredom (eg, “I feel bored in my work”; 0 = *never* to 6 = *very often*; $\alpha = 0.85$).

Self-rated health was measured by one question: “How do you rate your health compared with peers of your own age?” with five response options (from 5 = *very good* to 1 = *very poor*). The variable was categorized into two categories: 1 = not poor (from 3 to 5) and 2 = poor (from 1 to 2 in the original scale). The reliability of the question is found to be comparable to or even better than that of the more specific questions on health.²⁵

Self-rated workability was assessed by one question with a scale from 0 to 10: “Assume that your work ability at its best

has a value of 10. How many points would you give your current workability? (0 means that you are currently not able to work at all).” This single-item question was derived from the Work Ability Index questionnaire,²⁶ a valid measure of workability.²⁷ Prior studies have indicated a strong association between the total Work Ability Index score and the single-item indicator.²⁸ The variable was dichotomized into 1 = not poor work ability (≥ 6) and 2 = poor work ability (< 6).

Stress symptoms were measured using one item²⁹: “Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because their mind is troubled all the time. Have you felt this kind of stress recently?” This item was scored on a five-point scale ranging from 1 (*not at all*) to 5 (*very often*). The item has converged with validated measures of well-being (including job burnout) and has had theoretically grounded associations with health and work characteristics.³⁰ This variable was recoded as 1 = stress experienced seldom or never (≤ 3) vs 2 = stress experienced often (> 3).

Employee’s turnover intentions were measured using one item: “I often think about resigning from my current job” (1 = *disagree* to 5 = *completely agree*). The variable has shown to be a valid measure in, for example, a recent study on Finnish judges.³¹ It was recoded as either 1 = having turnover intentions seldom or never (≤ 3) or 2 = having turnover intentions often or somewhat often (≥ 4).

Retirement intentions were measured by one question on a four-point scale: “Have you considered retiring before the normal retirement age?” (1 = no, never; 2 = yes, sometimes; 3 = yes, often; 4 = I have already sent in my application). Many Finnish survey studies have applied this measure and shown that it predicts actual retirement.^{32,33} The variable was dichotomized as 1 = no regular early retirement intentions (≤ 2) and 2 = having retirement intentions often or already applied for early retirement (> 2).

Demographic and occupational characteristics were measured using six items to elicit participants’ age, gender, level of education, type of employment contract, employee position, and industrial sector according to the classification of Statistics Finland. The demographic variables (age, gender, and education) were chosen on the basis of previous studies that associate them with job boredom,² whereas occupational variables were chosen to investigate the loci of job boredom in terms of occupational characteristics.

Statistical Analyses

We conducted univariate analyses of variance to examine job boredom and its demographic and occupational correlates. The differences between the categories of the independent variables were analyzed with 95% confidence intervals of the means. Because of the large size of the sample, even practically irrelevant differences among groups may become statistically significant. Thus we used a significance level of $P < 0.001$. Effect sizes (eta-squared = η^2) were also provided. Effect sizes of $\eta^2 < 0.01$ (1% of variance accounted for) or less were considered irrelevant from a practical point of view. A stepwise logistic regression analysis and odds ratio (OR) estimates were used to assess how strongly job boredom was associated with employee health- and work-related attitudes. Logistic regression was carried out in three steps, starting from an empty model. In the first step, demographic variables were included in the model. In the second step, other occupational variables were added. Job boredom was included in the third step, and as a final step the interaction variables (eg, age \times job boredom) were added to the model. All analyses were conducted using SPSS 18.0 software.

RESULTS

Descriptive Results

Of the demographic variables, as shown in Table 1, employees younger than 36 years had the highest mean score in job boredom ($M = 1.43, SD = 0.31$), whereas employees older than 56 years

TABLE 3. Odds Ratios for the Final Models of Associations Between Job Boredom, Health, and Work-Related Attitudes (N = 11,468)

	Poor Self-Rated Workability			Poor Self-Rated Health			Stress Symptoms			Turnover Intentions			Early Retirement Intentions		
	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI
Step 1															
Age, yr															
>36	-1.13	0.3***	0.21-0.49	-0.48	0.6*	0.43-0.91	0.05	1.0	0.86-1.27	0.52	1.7***	1.36-2.07	-1.51	0.2***	0.18-0.28
36-44	-0.74	0.5***	0.34-0.68	-0.16	0.9	0.62-1.17	-0.01	1.0	0.83-1.18	0.63	1.9***	1.55-2.29	-0.92	0.4***	0.33-0.47
45-50	-0.67	0.5***	0.36-0.72	-0.10	0.9	0.66-1.24	0.08	1.1	0.91-1.29	0.61	1.8***	1.52-2.25	-0.57	0.6***	0.48-0.67
51-56	-0.18	0.8	0.62-1.13	0.06	1.1	0.79-1.43	0.11	1.1	0.94-1.32	0.47	1.6***	1.31-1.95	-0.20	0.8**	0.71-0.95
<57		1.0***			1.0			1.0			1.0***			1.0***	
Gender															
Female	-0.20	0.8	0.62-1.08	-0.05	1.0	0.74-1.23	0.14	1.2*	1.00-1.33	0.20	1.2**	1.06-1.41	-0.10	0.9	0.78-1.05
Male		1.0			1.0			1.0			1.0			1.0	
Education															
Comprehensive school	1.0	2.8***	1.89-4.04	0.67	2.0***	1.39-2.74	-0.28	0.8*	0.61-0.95	-0.10	0.9	0.72-1.13	0.41	1.5***	1.23-1.84
Secondary school	0.65	1.9***	1.37-2.68	0.04	1.0	0.77-1.41	-0.35	0.7***	0.60-0.83	-0.30	0.7***	0.63-0.87	0.25	1.3**	1.10-1.52
Vocational education	0.44	1.5**	1.13-2.13	0.10	1.1	0.85-1.44	-0.18	0.8**	0.73-0.95	-0.07	0.9	0.81-1.07	0.20	1.2**	1.05-1.41
University		1.0***			1.0***			1.0***			1.0**			1.0***	
	$R^2 = 0.032^a$			$R^2 = 0.010$			$R^2 = 0.011$			$R^2 = 0.019$			$R^2 = 0.048$		
Step 2															
Employment status															
Employee	0.45	1.6	0.94-2.62	0.37	1.5	0.95-2.22	-0.40	0.7***	0.56-0.79	0.03	1.0	0.84-1.28	0.15	1.2	0.95-1.43
Supervisor		1.0			1.0			1.0			1.0			1.0	
Permanent contract	0.21	1.2	0.83-1.81	0.30	1.4	0.96-1.91	0.39	1.5***	1.24-1.77	0.25	1.3**	1.08-1.52	0.39	1.5***	1.20-1.81
Fixed-term contract		1.0			1.0			1.0			1.0			1.0	
Industrial sector															

(Continued)

TABLE 3. (Continued)

	Poor Self-Rated Workability			Poor Self-Rated Health			Stress Symptoms			Turnover Intentions			Early Retirement Intentions		
	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI	β	OR	95% CI
Agriculture etc	-0.37	0.7	0.09-5.13	0.21	1.2	0.29-5.16	0.17	1.2	0.55-2.55	-0.05	1.0	0.42-2.17	0.40	1.5	0.74-3.00
Manufacturing	-0.91	0.4*	0.17-0.95	-0.77	0.5	0.20-1.08	-0.43	0.7	0.42-1.01	-0.33	0.7	0.50-1.05	-0.31	0.7	0.51-1.05
Construction	-0.16	0.9	0.11-6.54	0.03	1.0	0.14-7.83	-0.96	0.4	0.05-2.87	0.38	1.5	0.47-4.56	0.54	1.7	0.67-4.44
Transportation	0.33	1.4	0.47-4.08	0.15	1.2	0.35-3.85	0.17	1.2	0.59-2.38	-0.12	0.9	0.44-1.79	0.29	1.3	0.74-2.43
Information and communication	—	—	—	-0.45	0.6	0.15-2.64	0.30	1.3	0.77-2.35	-0.03	1.0	0.53-1.77	0.07	1.1	0.62-1.88
Financial and insurance activities	-0.75	0.5	0.19-1.17	-0.11	0.9	0.48-1.68	-0.13	0.9	0.64-1.20	-0.16	0.9	0.62-1.17	0.41	1.5**	1.14-1.97
Professional, technical and scientific	0.09	1.1	0.66-1.79	0.46	1.6*	1.06-2.34	0.45	1.6***	1.27-1.93	0.17	1.2	0.96-1.47	-0.26	0.7*	0.60-0.99
Administrative and support services	0.28	1.4	0.73-2.36	0.41	1.5	0.89-2.58	-0.56	0.6*	0.36-0.89	-0.30	0.7	0.50-1.09	0.02	1.0	0.73-1.41
Public administration and defense etc	0.11	1.1	0.84-1.48	0.18	1.2	0.93-1.55	0.20	1.2**	1.07-1.40	0.15	1.2*	1.02-1.33	-0.08	0.9	0.80-1.06
Education	0.36	1.4	0.97-2.13	0.39	1.5*	1.04-2.11	0.51	1.7***	1.38-2.00	0.22	1.2*	1.02-1.51	0.18	1.2	0.99-1.46
Arts, entertainment & recreation	0.52	1.7	0.75-3.82	0.80	2.2*	1.09-4.58	0.44	1.5	0.97-2.49	0.18	1.2	0.74-1.95	0.34	1.4	0.89-2.25
Other service activities	1.01	2.8***	1.77-4.30	0.82	2.3***	1.47-3.51	0.32	1.4*	1.04-1.83	0.06	1.1	0.78-1.43	-0.14	0.9	0.64-1.19
Human health and social work	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		1.0**			1.0**			1.0***			1.0			1.0**	
Step 3															
Job boredom	0.59	1.8***	1.61-2.03	0.41	1.5***	1.36-1.68	0.22	1.3***	1.17-1.33	0.75	2.1***	1.98-2.25	0.52	1.7***	1.58-1.80
	$R^2 = 0.051$			$R^2 = 0.024$			$R^2 = 0.025$			$R^2 = 0.028$			$R^2 = 0.057$		
	$R^2 = 0.085$			$R^2 = 0.040$			$R^2 = 0.032$			$R^2 = 0.112$			$R^2 = 0.094$		

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.
^aNagelkerke R^2 estimate reports the proportion of variance accounted for in the dependent variable based on the predictive power of the independent variables in the model.
 OR, odds ratio.

had the lowest mean score ($M = 0.87$, $SD = 0.83$). A post hoc test demonstrated that the mean levels of job boredom differed significantly between all age groups. On average, job boredom scores decreased with age ($F_{4,11221} = 61.34$, $P < 0.001$). Men had a higher mean score ($M = 1.3$, $SD = 0.88$) than women ($M = 0.91$, $SD = 0.72$; $F_{1,11224} = 443.467$, $P < 0.001$). Furthermore, employees who had completed secondary school had the highest mean score of job boredom ($M = 1.1$, $SD = 0.78$; $F_{3,11129} = 10,522$, $P < 0.001$) when compared with other educational groups (mean scores for all demographic groups are presented in Table 1). Nevertheless, the mean scores showed little variation between educational cohorts, and the post hoc test found that only the job boredom mean scores of employees with secondary school education differed significantly from those of other educational groups. Furthermore, the effect size of education indicates that it had little relevance from a practical point of view (education accounted for less than 1% of the variance of job boredom).

Of the occupational variables presented in Table 2, employees had a higher mean job boredom score ($M = 1.0$, $SD = 0.77$) than supervisors ($M = 0.7$, $SD = 0.68$; $F_{1,11224} = 192.530$, $P < 0.001$). Employment contract was not significantly related to feeling bored at work ($F_{1,11205} = 1.749$, ns). As regards industrial sectors, employees in transportation and storage reported the highest mean scores of job boredom ($M = 1.58$, $SD = 0.97$) along with workers in manufacturing ($M = 1.43$, $SD = 0.90$) and in the arts, entertainment, and recreation industries ($M = 1.46$, $SD = 0.92$). Employees working in finance and the insurance sector ($M = 0.84$, $SD = 0.72$), in health and social work ($M = 0.88$, $SD = 0.67$), and in the education sector ($M = 0.96$, $SD = 0.79$; $F_{12,11213} = 27.389$, $P < 0.001$) reported the least job boredom (Table 2). Apart from employment contract, the occupational factors included in the analysis can also be considered practically significant ($\eta^2 > 0.01$). The post hoc test demonstrated a significant difference between the mean levels of job boredom in certain industries. Industries such as manufacturing, transportation and storage, information and communication technology, arts, recreation and entertainment, and construction did not differ significantly from each other, but did show significant difference in comparison to industrial sectors such as finance, education, health and social work, and administrative and support service activities. In sum, the means of industries with low job boredom did not differ from each other but differed significantly from the industries with the highest mean scores of job boredom.

Job Boredom, Health, and Work-Related Attitudes

Next, we investigated whether job boredom is related to self-reported health variables and work-related attitudes, after adjusting for individual demographic and occupational factors. First, experiencing job boredom increased the likelihood of decreased workability ($OR = 1.8$; $P < .001$). In addition, self-rated workability decreased with age and increased with higher education. Employees with the lowest level of education were the most likely to rate their workability as poor ($OR = 2.8$; $P < .001$), whereas those with a university education were least likely to do so. Furthermore, working in "other service activities" increased the likelihood of poor workability ($OR = 2.8$; $P < .001$).

Job boredom was also associated with poor self-rated health. Employees experiencing job boredom were 1.5 times more likely to rate their health as poor ($P < .001$). Similarly to workability, more highly educated employees had better self-rated health than less educated employees. In addition, health perceptions decreased slightly with age. Employees working in other services ($OR = 2.3$; $P < .001$) and the arts, entertainment, and recreation industry ($OR = 2.2$; $P < .05$) were the most likely to rate their health poorly. Also, those working in professional, technical, and scientific activities ($OR = 1.6$; $P < .05$) and in education ($OR = 1.5$; $P < .05$) had a higher likelihood of poor self-rated health. After testing for the interaction effects,

job boredom was found to interact with education ($\beta = -0.149$; $P < .01$) in such a way that the association between job boredom and poor self-rated health was stronger among less educated employees.

Bored employees were 1.3 times more likely to experience stress symptoms than their less bored colleagues. Particularly those working in professional, technical, and scientific activities ($OR = 1.6$; $P < 0.001$) and in education ($OR = 1.7$; $P < 0.001$) were more prone to experiencing stress symptoms. Having a permanent employment contract also associated with stress ($OR = 1.5$; $P < 0.001$), that is, employees on a permanent contract were more likely to experience stress symptoms than those on a fixed-term employment contract. Moreover, employees were less likely to experience stress symptoms than supervisors ($OR = 0.7$; $P < 0.001$). Finally, the more educated employees were, the more they reported stress symptoms. Education and job boredom had an interaction effect on stress symptoms ($\beta = -0.152$; $P < 0.001$). Although job boredom was associated with stress symptoms regardless of educational level, the effect was stronger among less educated employees.

In addition to health variables, job boredom was related to employees' turnover intentions ($P < 0.001$). Bored employees were 2.1 times more likely to have turnover intentions from their current job, and job boredom was more strongly associated with turnover intentions than other variables in the model. The association between age and intentions to leave was as expected: employees older than 56 years were less likely to consider leaving their jobs than those in other age groups. The likelihood of exit intentions reached their peak between the ages of 36–50 years ($OR = 1.8$; $P < .001$). Furthermore, the likelihood of turnover intentions was stronger among women ($OR = 1.2$; $P < .001$) and those with a university education.

Of all the variables in the model, job boredom was also most predictive of employees' intentions to retire prematurely ($OR = 1.7$; $P < .001$). Again, the association between age and retirement intentions was expected: the likelihood of having early retirement plans increased with age. Furthermore, the more educated employees were, the less likely they were to plan early retirement, whereas the least educated employees were most likely to consider early retirement ($OR = 1.5$; $P < .001$). Employees with a permanent contract were 1.5 times more likely to plan early retirement than employees with fixed-term employment. Gender interacted with job boredom in such a way that job boredom had a stronger effect on the early retirement intentions of male employees ($\beta = 0.247$; $P < 0.001$).

Overall, these results indicated that the levels of job boredom vary in different demographic and occupational groups. In addition, job boredom is particularly associated with negative work-related attitudes, but also with several self-reported health outcomes.

DISCUSSION

This study among a large sample of Finnish employees had two main purposes: To explore the prevalence of workplace boredom in different demographic and occupational groups and to investigate whether job boredom is associated with negative health perceptions and work attitudes. This investigation was spurred by the notion that in contrast to other negative states of ill-being at work (eg, job stress, burnout), surprisingly little academic research exists on job boredom; how common it is in different types of workplaces and how it is associated with various outcomes.

The current findings showed that young and male employees experience job boredom more often than older and female employees. Job boredom was also experienced more in industries such as manufacturing, transportation and storage, and arts, entertainment, and recreation. In addition, we found a clear association between job boredom and self-rated health indicators, that is health status, workability, stress symptoms, and work-related attitudes, that is, exit and early retirement intentions.

The Correlates of Job Boredom

This study showed that education played only a very minor role in experiencing boredom in Finnish workplaces. Thus, this study does not support the proposition that the highly educated experience more job boredom, which is presented elsewhere.¹⁴ Neither does low education as such seem to expose people to job boredom.

Although we found no clear evidence on differences in workplace boredom according to educational level, our findings indicated that employees in blue-collar industries experience more job boredom than those in other industries. Industries such as storage, transportation, and manufacturing entail jobs that are low skilled, lack challenge, and consist of monotonous tasks, all of which are features associated with boredom at work.² The findings are congruent with the traditional stereotype of job boredom in blue-collar jobs, whereas health and social work and education industries were among those with the least job boredom among both male and female employees. In contrast to the literature explaining boredom-proneness through attributes associated with gender roles, norms, and socialization,² our analyses indicate that job boredom is not an issue of gender alone. In addition to the blue-collar industries, employees working in the arts, entertainment, and recreation industries experienced boredom at work relatively often. Furthermore, levels of job boredom in professional, scientific, and technical activities as well as in information and communication technology industries were slightly higher than those in other industries. These findings outline workplace boredom as a phenomenon that may have its roots not only in task monotony but also in other elements of the job, such as its meaning to the employee⁹ and underchallenging demands.¹ Thus, the results expand our understanding of the loci of job boredom beyond the scope of common stereotypes and raise the need for further investigation of the job and other features that expose workers to boredom.

The analyses also showed that age was negatively associated with experiencing boredom at work. More specifically, employees younger than 36 years experienced more job boredom than older employees. This may seem counterintuitive, as the longer an employee occupies a job, the more routine and, hence, boring it might become.¹⁷ Nevertheless, our findings are congruent with other studies that show that job boredom has a declining linear relationship with increasing age.³⁴ Because of the representativeness of the sample across age groups, the results cannot be explained by the “healthy worker effect,” that is, that only the healthy elderly remain employed.

It may be that the variety and challenges of tasks also increase with increasing age. Another explanation may be drawn from the field of developmental psychology, in which the Selection, Optimization and Compensation theory³⁵ posits that as individuals age, their biological potential declines, resulting in diminishing levels of performance, increasing levels of challenge and a need to adjust functioning to compensate for the losses. Aside from the mechanisms of aging, in the early stages of working life, task features might not always match individual’s motives and needs, especially if one’s capabilities are perceived as exceeding the demands of the job. For example, at a somewhat later stage of one’s career, an employee might get promoted and accordingly obtain access to a more varied task description. Indeed, in this study, supervisors were less bored at work than employees. The tasks of supervisors typically entail more autonomy and variety than those of employees, and these job resources are known to relate to more work engagement and less job boredom.^{1,36} Furthermore, supervisors might be more motivated and able to actively escape boredom by, for example, seeking new challenges.³⁷

Health, Work-Related Attitudes, and Job Boredom

Job boredom was strongly associated with variables concerning organizations and employees, namely employee health- and work-related attitudes. After controlling for demographic and occu-

pational variables, job boredom increased the odds of having intentions to leave one’s present job and to retire early. As job boredom is characterized by passive indifference and a lack of interest toward tasks that feel meaningless,^{1,8,13} it may lead to disengagement and alienation from work and consequently to considering changing one’s job or prematurely leaving work life altogether.^{38,39} This type of “withdrawal behavior” can be perceived as a coping mechanism for job boredom.⁴⁰ If an individual lacks the ability to adequately cope with the situation, negative health effects might start accumulating.

Job boredom increased the likelihood of negative health-related outcomes and stress symptoms. Earlier research has mostly focused on the attitudinal and behavioral outcomes of job boredom, that is, withdrawal, rather than its impact on health.² There is growing evidence of burnout’s negative health consequences,^{41,42} which is typically related to excessively high job demands.⁴³ In contrast, job boredom has mainly been associated with insufficient job demands.^{1,6} Thus, it was interesting to find that job boredom increased the likelihood of experiencing poor health and poor work ability even more than most of the demographic and occupational variables. Having lower education increased the likelihood of poor self-rated work ability and health more than that of experiencing boredom at work. The association between job boredom and poor self-rated health was also stronger among employees with less education. Moreover, job boredom increased the likelihood of experiencing general stress symptoms, and this association was also higher among those who were less educated. Further research should examine whether job boredom, also in the long-term, could predict similar symptoms and health consequences to job burnout, and whether these impacts vary between different educational groups.

Research has also shown that job boredom can boost behavior that is beneficial to the organization.^{16,44} It would be important to investigate whether there are general conditions under which job boredom results in poor health and increased strain and whether there are conditions under which some type of job boredom could even be beneficial to employee health, and to, for example, recovery.

Limitations

This study has certain limitations. First, common method bias is always attached to self-report questionnaires.⁴⁵ Nevertheless, our focus was on job boredom, which is a state that can be accurately reported only by the individual alone, as it may often be hidden under a façade of more normative behavior. For the same reason, social desirability might be another source of common method bias in this study, as job boredom may be perceived as a taboo that employees will not admit to experiencing. Congruently in this study, the overall scores of workplace boredom were low. Nevertheless, the distribution of mean scores did not deviate substantially from normality, and as previously noted by other researchers, low scores are a common challenge when measuring negative phenomena such as burnout. Thus it should be considered noteworthy that significant relations to both independent and dependent variables were found, despite low levels of job boredom. In this study, we have addressed the importance of making a distinction between boring, understimulating jobs and the subjective experience of boredom at work. This is rarely investigated and was this study objective. In the future, it would be important to study boredom with objectively measured indicators of health and retention.

Second, longitudinal designs should be applied in future research to further investigate, for example, how job boredom develops over time and what its long-term health consequences are. Third, the sample was not fully representative of the whole Finnish working population. Some industries were overrepresented, such as health and social work, whereas other employment sectors, such as the private sector, were underrepresented. Nevertheless, the sample provided a wide, heterogeneous coverage of the Finnish working environment.

To improve representativeness, we applied weighting adjustment to the sample, after which the results could be generalized across gender and age.

CONCLUSIONS

This study contributes to an underresearched area of employee ill-being, that is, job boredom, by identifying its prevalence and sociodemographic correlates and by estimating its relation to negative organizational and health outcomes. As a practical implication, it would benefit organizations to pay attention to redesigning work in a way that provides employees with challenging jobs and opportunities for development. Special focus should be given to providing young employees with opportunities to use and develop their potential. In addition, organizations could support the efforts of employees to actively influence the boundaries of their jobs themselves to alleviate boredom.

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