

RESEARCH

Open Access



Factors associated with psychological distress of workers in the Finnish Evangelical Lutheran Church

Tuire Kuusi^{1*}, Kati Tervo-Niemelä² and Satu Viertiö³

Abstract

Background The work of church employees contains many elements causing symptoms of stress and anxiety. They can lead into psychological distress and possibly indicate the beginning of a more serious psychological state. Women seem to be more disposed to psychological stress than men. We investigated factors contributing to psychological distress among women and men in four professions of the Evangelical Lutheran Church of Finland (ELCF).

Methods A link to an electronic survey was sent to the members of respective trade unions of four professions of the ELCF, and we got responses from pastors ($n=241$), church musicians ($n=92$), diaconal workers ($n=85$) and youth workers ($n=56$). Psychological distress was assessed using the Mental Health Inventory-5 (MHI-5; cut-off value ≤ 52 indicating severe distress). We used logistic regression to examine sociodemographic, health-related, and work-related factors that could potentially be associated with psychological distress.

Results We found severe psychological distress in all profession groups. Gender differences were scarce. Loneliness was the most important factor associated with psychological distress in both men and women (OR 14.01; 95% CI 2.68–73.25 and OR 7.84; 3.44–17.88, respectively), and among pastors and church musicians (OR 8.10; 2.83–23.16 and OR 24.36; 2.78–213.72, respectively). High mental strain of work was associated with distress in women (OR 2.45; 1.01–5.97). Good work satisfaction was a protective factor for men and women (OR 0.06; 95% CI 0.01–0.40 and OR 0.61; 0.18–0.40, respectively) and for pastors and church musicians (OR 0.22; 0.08–0.73 and OR 0.06; 0.01–0.43, respectively). For women, additional protective factors were being a pastor (OR 0.26; 0.07–0.95), or youth worker (OR 0.08; 0.01–0.48), and good self-reported health (OR 0.38; 0.18–0.82).

Conclusion Even though we found some protective factors, the share of workers with severe distress was higher in all profession groups of the ELCF than in the general population. Loneliness was the strongest stressor among both genders and high mental strain among women. The result may reflect unconscious mental strain or subordination to the prevailing working conditions. More attention should be paid to the mental wellbeing and work conditions of church employees.

Keywords Mental health, Psychological distress, Workload, Pastor, Church musician, Diaconal worker, Youth worker

*Correspondence:

Tuire Kuusi

tuire.kuusi@uniarts.fi

¹University of the Arts, Helsinki, Finland

²University of Eastern Finland, Joensuu, Finland

³The Department of Public Health and Welfare, The Finnish Institute for Health and Welfare, Helsinki, Finland



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

Background

Pastors' and other church employees' work contains a great deal of factors that may be connected with psychological distress [1–3]. Previous studies, mostly conducted among the clergy, show several features that church workers find burdensome in their work. These include long and unpredictable working hours, the feeling of being constantly on-call, an increasing amount of bureaucracy, work overload, role ambiguity, difficulties in combining private and working life, and unsatisfactory financial compensation [3–12].

In this article, we are focusing on psychological distress among church workers in the Evangelical Lutheran Church of Finland (ELCF). Previous studies have shown high distress measures for church workers in the ELCF. Even though these studies did not use similar measures for workload, exhaustion and psychological distress, the tendency can be read from the results: approximately 50% of the diaconal workers experienced that their work was distressing [13], and more than 70% of them reported having too much work and difficulties in defining the responsibilities of their work [14], while approximately one fifth of both pastors and church musicians had similar experiences [15]. The share of youth workers who felt exhausted was 15% [16]. A recent study [17] on the effects of the COVID-19 pandemic revealed that nearly two-thirds of the workers in the church experienced that psychological distress, workload and exhaustion had increased during and after the pandemic, and this was especially the case with those in diaconal work (85%) and youth work (78%), and also with pastors (60%) and church musicians (50%).

Psychological distress

Psychological distress is commonly related to non-specific symptoms of stress, anxiety, and depression [18], and it can be measured with a five-item Mental Health Inventory (MHI-5) [19, 20]. These five items measure how often a respondent has felt nervous, sad, and depressed as opposed to feeling calm, happy, and peaceful (for details, see *Variables*). Previous studies show that several factors can contribute to increasing risk of psychological distress. These include low level of job satisfaction [21], lack of social and emotional support [22], emotional and social loneliness [23], and harmful lifestyles such as alcohol use [24], smoking [25], and substance use [26].

Previous studies in Western countries have shown that women are more disposed to psychological stress, depression, and anxiety than men [20, 27–29]. The risk factors affecting the gender difference can be biological, psychological, and social [30, 31]. Expectations for women and men can be different, as can the societal roles. Earlier study [32] has also shown that work engagement is gendered, and it is easier for men to experience

the main components of engagement (psychological meaningfulness, safety, and availability) at work. Further, work-family conflict can increase mental stress, and – especially during parenting – it is more common among women than men, although the gender gap in Europe is small [33, 34]. Work-family conflict has recently been studied with physicians and shown to be associated with depression, burnout, and emotional exhaustion. The study showed that there was an increase in gender inequalities during the COVID-19 pandemic; women increased their responsibility for home and children with the consequence that they experienced more work-to-family and family-to work conflict, as well as depressive and anxiety symptoms, than men [35].

Reward and distress of vocational work

The church work involves meeting people and supporting them in different life situations. Enthusiasm and joy are often emphasized in vocational professions such as the professions at church [36]. Research has shown that almost all Finnish church workers enjoy their work and consider their work meaningful and useful, and in general, work-related wellbeing factors are high in most workplaces [37]. Psychological distress can, however, be common in vocational work with people, although such work may also be considered particularly meaningful [38]. Church workers are among those professions to whom people turn to when seeking professional help. Church workers are expected to be able to help those who are facing traumatic life situations, death, illness, or sorrow, that is, the workers need abilities to handle emotional distress of the parish members. If there are also other work demands (e.g. workload, quick pace of work), the emotional demands may increase the worker's distress [38]. Some professions have no regular working hours, and this may cause distress because of the conflict between the service mission, needs of the parish members, and the worker's need to rest and recovery. Finally, recent studies show a notable decrease in work-related wellbeing among pastors and church musicians of the ELCF, during the COVID-19 pandemic [39].

In this study we examined four profession groups at the ELCF. Their duties and education differ from each other, but there also are important common aspects. First, the task of the workers within each group are the same regardless of the gender. Second, the workers in all groups have higher education either at Master of Arts or Bachelor of Arts (sometimes even doctoral) level. The four groups, their duties and education are as follows:

Pastor is a ministry of the church, and the officials are ordained as pastors. The special tasks of pastors are to provide public service and share sacred sacraments, to perform other church services, and to act in pastoral care. Their work is not tied to predetermined, regular working

hours but spread over the week and days. In addition to their theological expertise, pastors need a wide range of interaction skills and presence in their daily work with individuals, groups, and communities. At the same time, they need the ability to structure and relate their work to the strategy, objectives, and activities of the church [40]. The master's level education of the pastors takes place at theological faculties of universities. In Finland women have been ordained as pastors for 30 years, and currently women make up almost half of the acting pastors in the ELCF. However, there are less women in leadership positions: only 20% of the vicars are women. There is still a small part of the parish members (5%) and employees (9%) who do not accept women as pastors [41].

The **church musicians** of the ELCF run the musical life of their parish and work with parishioners of all ages. Their work consists of musical activities in services and various activities in the parish, e.g., choir conducting, music group conducting, music education at confirmation schools and children's music classes, etc. Like with pastors, also church musicians' work is without predetermined regular working hours and spread over the week and days. In addition to their musical expertise, they also need theological knowledge, since pastoral duties and meeting the parishioners in various major life events is part of their work [42]. Church musicians have a music-specific degree which can be either a master's level degree from a university or a bachelor's level degree (most often) from a university of applied sciences [43]. Women have been able to work as church musicians in Finland for more than 60 years, and currently approximately 67% of all church musicians in Finland are female [17].

Diaconal work is also part of the basic spiritual work of the ELCF. The diaconal workers are educated in universities of applied sciences. There are two options: *BA of social services, diaconal work* or *BA of health care, diaconal nursing*. The latter also gives the student the professional qualifications of a nurse. Most diaconal workers have regular working hours. The work involves people's everyday lives and dealing with complex issues in a creative and professional manner. Diaconal workers assist and support individuals, families, groups, and communities in various life circumstances and help them to cope independently [44]. Of all diaconal workers in Finland, approximately 92% are female.

Christian Youth Work is based on the mission of the Church, and the workers are supposed to be committed to the church's basic spiritual mission and values [45]. As with the diaconal workers, the youth workers are also educated in universities of applied science. Their BA can be the *BA of social services*, further defined as Christian Youth Work, or *Bachelor of Humanities* specializing in the youth work of the church. Youth workers are professionals who support young people's social

and emotional growth, and they work with children, young people, and families in various settings. The work includes planning, developing, and implementing activities together with children, young people, and their families. Most often the work has regular working hours, but it can also include camps and excursions [46]. The share of female youth workers in Finland is approximately 66%.

Aim

The study aimed at investigating factors contributing to psychological distress among workers in the ELCF. Our study has a special focus on comparing four professions in the church (pastors, church musicians, diaconal workers, and youth workers) and examining gender differences within the professions: how the church workers in different profession groups experience psychological distress and are there differences between male and female workers. Since we focus on four profession groups, each with different work descriptions, we can assume that the analyses would reveal differences in experiences of distress both between profession groups and between men and women workers within each profession group.

Materials and methods

Data collection

For data collection we used a questionnaire (see Variables). We contacted the participants via the trade unions of the pastors, church musicians, diaconal workers, and youth workers of the ELCF at the end of 2021. In these profession groups, a vast majority of church workers are members of these trade unions, which means that most of these workers can be reached via these unions. The unions informed all their members about the study by e-mail and sent the link to the questionnaire via the same e-mail. We also informed about the research on social media (Facebook) for contacting those who possibly had not read their e-mail or had ignored it. However, we have no data about the number of workers who were reached via these channels. The total number of respondents was 537, and they were divided as follows: 258 pastors, 100 church musicians, 88 diaconal workers, 61 youth workers, and 30 others (they did not belong to any of the above-mentioned groups and were excluded from our analyses). For the pastors, the number of respondents accounts for approximately 13% of the members (1978 in total) of the clergy union. For church musicians, the share is approximately 15% (100 out of the total of 658), while among diaconal workers (total 1168) and youth workers (total 769) the shares are lower (7.5% and 7.9%, respectively). Based on gender and diocese division, the respondents well represented the four groups of workers of the ELCF.

Variables

The questionnaire was created for the present study on the basis of various sources. We selected various quantitative measures for examining the participants' health and wellbeing, work, and their possibilities to combine work and family responsibilities from the *Health, Well-being and Service Use Study* by the Finnish Institute of Health and Welfare (see, e.g. the questionnaire from 2017 [47]). Psychological distress was assessed in this study using the Mental Health Inventory (MHI-5) based on the SF-36 questionnaire [19]. It is a self-report instrument to measure health-related quality of life and to detect anxiety and depression symptoms. The MHI-5 consists of five questions: 'How much of the time during the last month have you: 1) been a very nervous person, 2) felt downhearted and blue, 3) felt calm and peaceful, 4) felt so down in the dumps that nothing could cheer you up, and 5) been a happy person?' The five possible responses to the questions were scored between 1 and 5. Items 3 and 5 ask about positive feelings and their scoring was done in reverse. All scores were then converted to fit a range from 0 to 100, with low scores indicating more psychological distress. To measure clinically significant psychological distress, we used the cut-off of 52 points derived from the Eurobarometer survey in 2002 [48]. Cronbach's alpha for MHI-5 was $\alpha=0.885$; which indicates good internal consistency reliability.

The age of the participants was divided into three equal-sized categories: under 46 years, 46–55 years, and 56 years or more. Marital status was categorized as married/cohabiting, divorced/widowed, and single. Living alone was categorized based on a response of yes or no. Subjectively experienced loneliness was divided into two categories: never/seldom/sometimes and quite often/all the time. Self-reported health was asked using the following question: 'How would you describe your current state of health?' and it was categorized as good/rather good, moderate, and rather poor/poor.

Alcohol consumption was assessed using the Alcohol Use Disorders Identification Test (AUDIT-C) [49]. It consists of three questions, each scored 0–4: 'How often do you have a drink containing alcohol?' (alternatives: never, once a month or less often, 2–4 times a month, 2–3 times a week, 4 or more times a week), 'How many standard drinks of alcohol do you have on a typical day when you are drinking?' (alternatives: 1–2, 3–4, 5–6, 7–9, 10 or more), 'How often do you have 5 or more drinks on one occasion?' (never, less than once a month, once a month, once a week, daily or almost daily). A total score of six or more for men and five or more for women indicates at-risk drinking. Cigarette smoking was asked: 'Do you smoke at the moment (cigarettes, cigars, or pipe)?' and it was divided into three categories: never, sometimes/daily, and 'I have stopped smoking'.

Potential work-family conflict was assessed using the following question: 'Are the following statements about home and work accurate for you?' The respondents were asked to agree or disagree with two statements: 'I feel I am neglecting home issues because of my work' and 'I often find it difficult to concentrate on my work because of home issues.' The answers were divided into two categories: completely/fairly accurate and completely/fairly inaccurate.

Types of employment contracts were studied with two variables. One was whether the worker had full-time or part-time work and the other was whether the worker had permanent or fixed-term work. Job satisfaction was measured using the following question: 'How satisfied are you with your present work?' The responses were divided into three categories: extremely/fairly satisfied, neither satisfied nor dissatisfied, and fairly/extremely dissatisfied. Mental and physical strain of work was measured using the following question: 'What is/was your most recent job like (physically and mentally)?' Answers were divided into three categories as follows: low strain (light or fairly light), moderate strain (a bit strenuous), and high strain (quite or very strenuous). In regression analyses, mental and physical strain were divided into two categories: low strain and moderate/high strain. Questions related to job satisfaction, job strain, and work-family conflict are from the Finnish Quality of Work Life Surveys 1977–2008 [50].

Data analysis

Analyses were conducted using the SAS Enterprise Guide 7.1 [51]. We analysed the distribution of sociodemographic variables, health-related variables, and work-related variables (below, work and non-work variables) in four profession groups for both genders. Differences in the categorical variables were tested using the Chi square test. We also analysed the psychological distress measured with MHI-5 (yes/no; cut-off value of $MHI-5 \leq 52$ indicating severe distress) in the four profession groups.

We used logistic regression analysis to examine associations between the work and non-work variables, and psychological distress in the whole study sample, separately in men and women. Dependent variable in the model was psychological distress (MHI-5) and independent variables were included in the model simultaneously.

In the result section, the results are organized so that we first present the differences in the four profession groups and between genders and, second, present the results concerning work and non-work variables explaining psychological distress. Finally, we present the association between the same variables and psychological distress in two profession groups, pastors and church musicians, individually. Due to the relatively small sample size of diaconal workers and youth workers, it was not expedient to analyse these profession groups separately.

Results

The results for MHI-5 (Table 1) show that the shares of ELCF workers who experienced clinically significant psychological distress were high. For women, the shares varied between 14.7% (Christian youth workers) and 22.5% (church musicians), and for men they varied between 18.6% (pastors) and 38.1% (church musicians). Even though the results in all profession groups showed that men experience clinically significant psychological distress more often than women, the differences are not statistically significant in any profession group. In other words, the results show that work at ELCF causes psychological distress, but the finding is not specific for any profession.

We continued by analysing gender differences in non-work variables but, generally, we did not find statistically significant differences in most of the factors. These include loneliness, suicide thoughts or self-reported physical health, and marital status. There were no statistically significant gender differences in at-risk drinking either. The only statistically significant difference was in smoking: male church musicians were smoking more often than female. Generally, the church workers seemed to be in rather good physical health: more than 60% of participants in all groups self-reported good or rather good physical health.

When focusing on the work variables, we found only few statistically significant differences between men and women: Female diaconal workers reported more often than men that they felt they were neglecting home issues because of their work. Male pastors, on the other hand, reported more often than female that it was difficult to concentrate on the work because of home issues. The smallest difference between the genders in work-family conflict was in church musicians.

Associations between psychological distress (MHI-5) and work and non-work variables

When we searched for factors potentially influencing psychological distress in the whole data (Table 2), we found the strongest association in loneliness, in both men and women. On the other hand, good work satisfaction was associated with less psychological distress in both men and women. Differences between the genders were few: Within women, the profession of pastor and youth worker was a protective factor. Health-related factors were associated with distress only in women, as self-reported health was a protective factor. Moderate or high mental strain of work was associated with distress in women.

In Table 3 we show the results of multivariable logistic regression analyses separately for two of the profession groups, namely pastors and church musicians. In both groups, loneliness was associated with the largest

risk of psychological distress, and good work satisfaction was a protective factor against distress. In pastors, self-reported good health was also associated with less distress.

Discussion

In this cross-sectional study of four Finnish church professions, we found clearly higher psychological distress for the ELCF workers than in the general population, both for women and men. Yet, we found few work and wellbeing factors that were associated with psychological distress. Furthermore, we found some differences between the four profession groups we studied. Some differences between genders were also found in regression analysis.

In a recent population-based study about the working population in Finland, there were 8.8% of male and 11% of female respondents who self-reported psychological distress at a level that is clinically significant and would need to be treated [20]. Compared to the working population in general, male church musicians, who were most stressed, reported almost four and a half times more distress and female church musicians reported twice as much.

Heavy alcohol intake has been found to be associated with an increased risk for, e.g., lower mental health and depressive symptoms [26, 52]. Our results showed that at-risk drinking was rarer within the Church workers than in the Finnish population with the same educational degree and age range [53]: the percentage of at-risk drinking in the general population was 35.6% for men and 18.2% for women, while in our sample it was between 10.8% and 22.7% for men and between 10% and 25.7% for women. Only female Christian youth workers had a higher rate (25.7%) than women in the general population. Earlier research has shown that there is a connection between low-level alcohol use and religiosity, especially in rural areas [54], and that deaths from alcohol-related diseases were especially rare in Finnish church musicians, both male and female [55]. We did not find association between psychological distress and alcohol use. Therefore, alcohol consumption is not the reason for high psychological distress in our sample.

Smoking was rarer in our sample than in previous study of the Finnish general population [20]. Women were smoking less than men, but those women who had quit smoking had more stress than others. Current smoking has been found to be associated with non-specific psychological distress [56]. We do not know how long ago the participants had quit smoking, but it is widely recognized that psychological distress is common while quitting smoking [57].

Common work conditions that have been found to cause distress at work are, for example, job insecurity

Table 1 Descriptive information of the study sample by profession groups and gender. Statistical significance of the differences between men and women

Gender	Pastors			Church musicians			Diaconal workers			Christian youth workers		
	Men (n=80)	Women (n=161)	P-value ¹	Men (n=21)	Women (n=71)	P-value ¹	Men (n=5) ²	Women (n=80)	P-value ¹	Men (n=22)	Women (n=34)	P-value ¹
	n (%)	n (%)		n (%)	n (%)		n (%)	n (%)		n (%)	n (%)	
MHI-5 (cut-off ≤ 52 points = psychological distress)	15 (18.8)	27 (16.8)	0.7028	8 (38.1)	16 (22.5)	0.1537	14 (17.5)	14 (17.5)	0.3061	5 (22.7)	4 (14.7)	0.4440
MHI-5 mean (95% CI)	69.8	69.9		58.9	66.9		67.6	67.6		68.5	68.6	
Age (years)			0.9246			0.7100			0.6701			0.1272
under 46	27 (32.5)	55 (34.0)		4 (18.2)	19 (26.8)		23 (28.8)	23 (28.8)		8 (36.4)	22 (62.9)	
46–55	20 (24.1)	41 (25.3)		9 (40.9)	27 (38.0)		25 (31.2)	25 (31.2)		5 (22.7)	6 (17.1)	
56 or older	36 (43.4)	66 (40.7)		9 (40.9)	25 (35.2)		32 (40.0)	32 (40.0)		9 (40.9)	7 (20.0)	
Age (mean)												
Marital status			0.0517			0.6325			0.4987			0.1303
Married/cohabiting	66 (80.5)	104 (65.4)		15 (68.2)	54 (77.1)		61 (76.3)	61 (76.3)		15 (68.2)	27 (77.1)	
Separated/divorced/widowed	6 (7.3)	20 (12.6)		2 (9.1)	6 (8.6)		12 (15.0)	12 (15.0)		4 (18.2)	1 (2.9)	
Single	10 (12.2)	35 (22.0)		5 (22.7)	10 (14.3)		7 (8.7)	7 (8.7)		3 (13.6)	7 (20.0)	
Lives alone	17 (20.5)	40 (24.8)	0.4454	6 (27.3)	15 (21.1)	0.5469	11 (13.9)	11 (13.9)	0.7065	7 (31.8)	6 (17.1)	0.1986
Loneliness												
Never/seldom/sometimes	73 (88.0)	138 (85.2)	0.5533	16 (72.7)	57 (80.3)	0.4511	74 (92.5)	74 (92.5)	0.3239	18 (81.8)	28 (80.0)	0.8655
Quite often/all the time	10 (12.0)	24 (14.8)		6 (27.3)	14 (19.7)		6 (7.5)	6 (7.5)		4 (18.2)	7 (20.0)	
Suicide thoughts over the past 12 months	6 (7.2)	14 (8.6)	0.7022	2 (9.1)	2 (2.8)	0.2050	4 (5.0)	4 (5.0)	0.1667	1 (4.6)	3 (8.6)	0.5624
Self-reported current physical health												
Good/rather good	57 (68.7)	111 (68.5)	0.9987	15 (68.2)	48 (67.6)	0.6686	54 (67.5)	54 (67.5)	0.7507	15 (68.2)	21 (60.0)	0.8234
Moderate	20 (24.1)	39 (24.1)		5 (22.7)	12 (16.9)		19 (23.8)	19 (23.8)		6 (27.3)	12 (34.3)	
Rather poor/poor	6 (7.2)	12 (7.4)		2 (9.1)	11 (15.5)		7 (8.7)	7 (8.7)		1 (4.6)	2 (5.7)	
At-risk drinking (AUDIT-C)³	9 (10.8)	28 (17.3)	0.1827	5 (22.7)	10 (14.1)	0.3355	8 (10.0)	8 (10.0)	0.4575	3 (13.6)	9 (25.7)	0.2762
Smoking												
Never	53 (63.9)	112 (69.6)	0.6650	12 (57.1)	61 (85.9)	0.0120	59 (73.8)	59 (73.8)	0.8934	10 (50.0)	19 (54.2)	0.5697
Sometimes or daily	14 (16.9)	23 (14.3)		5 (23.8)	4 (5.6)		3 (3.8)	3 (3.8)		3 (15.0)	8 (22.9)	
Quit	16 (19.3)	26 (16.2)		4 (19.1)	6 (8.5)		18 (22.5)	18 (22.5)		7 (3.0)	8 (22.9)	
Full-time work	78 (94.0)	143 (88.3)	0.1916	17 (77.3)	64 (90.1)	0.1157	73 (91.3)	73 (91.3)	0.4899	19 (86.4)	31 (91.2)	0.5696
Permanent work	65 (81.3)	127 (81.9)	0.8975	20 (95.2)	66 (97.1)	0.6861	71 (89.9)	71 (89.9)	0.4888	21 (100)	30 (85.7)	0.0695
The effect of COVID pandemic on work load												
No effect	27 (32.5)	34 (21.1)	0.1433	8 (36.4)	17 (23.9)	0.2643	9 (11.3)	9 (11.3)	0.7758	1 (5.3)	5 (14.3)	0.4636
Work load increased	43 (51.8)	100 (62.1)		11 (50.0)	33 (46.5)		68 (85.0)	68 (85.0)		17 (89.5)	26 (74.3)	
Work load decreased	13 (15.7)	27 (16.8)		3 (13.6)	21 (29.6)		3 (3.7)	3 (3.7)		1 (5.3)	4 (11.4)	
Mental strain of work						0.1181						0.7736
Low	6 (7.2)	9 (5.6)	0.8505	5 (22.7)	9 (12.7)	0.4721	2 (2.5)	2 (2.5)		1 (5.3)	2 (5.7)	
Moderate	20 (24.1)	42 (25.9)		67 (31.8)	22 (31.0)		16 (20.0)	16 (20.0)		4 (21.1)	9 (25.7)	
High	57 (68.7)	111 (68.4)		10 (45.5)	40 (56.3)		62 (75.5)	62 (75.5)		14 (73.7)	24 (68.8)	

Table 1 (continued)

Gender	Pastors			Church musicians			Diaconal workers			Christian youth workers		
	Men (n = 80)	Women (n = 161)	P-value ¹	Men (n = 21)	Women (n = 71)	P-value ¹	Men (n = 5) ²	Women (n = 80)	P-value ¹	Men (n = 22)	Women (n = 34)	P-value ¹
	n (%)	n (%)		n (%)	n (%)		n (%)	n (%)		n (%)	n (%)	
Physical strain of work												
Low	75 (90.4)	135 (83.3)	0.3050	16 (72.7)	45 (64.3)	0.3019		64 (80.0)	0.9316	15 (68.2)	22 (62.9)	0.8273
Moderate	7 (8.4)	25 (15.4)		46 (27.3)	18 (25.7)			14 (17.5)		6 (27.3)	12 (34.3)	
High	1 (1.2)	2 (1.3)		0	7 (10.0)			2 (2.5)		1 (4.5)	1 (2.8)	
Work satisfaction												
Extremely/fairly satisfied	59 (71.1)	126 (78.3)	0.0813	12 (63.2)	50 (71.4)	0.2589		63 (78.8)	0.8645	17 (77.3)	22 (62.9)	0.3015
Neither satisfied nor dissatisfied	16 (19.3)	15 (9.3)		1 (5.3)	8 (11.4)			13 (16.3)		2 (9.1)	9 (25.7)	
Fairly/extremely dissatisfied	8 (9.6)	20 (12.4)		6 (31.6)	12 (17.2)			4 (5.0)		3 (13.6)	4 (11.4)	
Family-work conflict												
I feel I am neglecting home issues because of my work	40 (50.6)	96 (60.8)	0.1373	13 (61.9)	48 (69.6)	0.5107		53 (66.3)	0.0030	13 (61.9)	21 (61.8)	0.9917
I often find it difficult to concentrate on my work because of domestic issues	15 (18.8)	15 (9.7)	0.0483	3 (14.3)	11 (16.9)	0.7759		8 (10.5)	0.4448	2 (9.1)	8 (24.2)	0.1535

¹ P-values indicating the statistical significance between men and women lower than .05 (statistically significant) are in bold print

² Not reported due to small N

³ At-risk drinking is assessed as AUDIT-C, men ≥ 6 points and women ≥ 5 points

[58], shift work [59], and physical exposure to harmful working conditions [60]. Job insecurity is associated with part-time and temporary work contracts [61]. In our sample, the largest share of part-time employment contracts was with male church musicians (22.7%), who also reported most distress. Further, in our sample the share of respondents with temporary contracts was clearly lower (between 2.9% for church musicians and 18.7% for pastors) than at the church in general (varying between 18.6% for church musicians to 22.6% for pastors) [62], indicating that those who might have most distress because of the temporary work did not even respond. This may explain why temporary contracts were not associated with distress in the two profession groups we studied in logistic regression analysis, namely, pastors and church musicians.

The church's professions could be compared to shift work due to non-standard working hours. In particular, pastors and church musicians also work during weekends, their working hours are irregular, and it is not always easy for them to take their weekly days off. Further, during the pandemic, church workers reported increased amount of work, new duties, and changes in working environment, and they also reported that work became more demanding during the pandemic [17, 39]. These factors can explain the greater amount of distress in the church employees of our study compared to the general working population [20, 38].

Job strain is high in working conditions in which the workers have too little control over their work, demands are too high, and they get little social support in the workplace [63]. Church workers in Finland reported remarkably more mental job strain than participants in the general population [20]. In our study sample, high mental strain was associated with psychological distress in women, but not in men. This is opposite to a previous study [20], where mental strain of work was associated with psychological distress in men. Generally, vocational work is characterized by enthusiasm and joy [36], and mental strain of the work may provide meaning and quality in work [38]. Yet, in these respects, church work is the same for men and women. Earlier study has, further, shown that women had clearly higher anxiety during the pandemic [64] and that women are less resilient and have a higher prevalence of mood and psychological disorders after disasters [65]. Even though the pandemic cannot be compared to a disaster, it can be called an abnormal situation causing mental strain.

Education of the workers in the ELCF is quite high, as bachelor's or master's degree is needed for all the studied professions: pastors, cantors, youth workers and diaconal workers. Higher education has been shown to correlate with good physical and mental health [66]. More than 60% of the participants reported their physical health as

Table 2 Logistic regression analysis (odds ratios with 95% confidence intervals) of non-work and work variables with psychological distress (MHI-5 cut-off ≤ 52 points) in the study sample. Variables were included in the model simultaneously.

	Men (n = 134)		Women (n = 323)	
	OR (95% CI) ²	P value ³	OR (95% CI) ²	P value ³
Sociodemographic factors				
Profession ¹				
Pastor	0.40 (0.05–3.21)	0.3850	0.26 (0.07–0.95)	0.0416
Church musician	0.52 (0.04–6.77)	0.6176	0.26 (0.06–1.12)	0.0702
Diaconal worker	0.15 (0.01–3.06)	0.2196	0.38 (0.10–1.45)	0.1564
Youth worker	0.27 (0.02–3.43)	0.3156	0.08 (0.01–0.48)	0.0055
Age (years)				
under 45	1	0.0702	1	0.2419
46–55	0.19 (0.03–1.14)	0.3085	0.59 (0.25–1.42)	0.0774
56 or older	0.47 (1.11–2.02)		0.45 (0.18–1.09)	
Marital status				
Married/cohabiting	1			
Divorced/separated/widowed	0.95 (0.14–6.67)	0.9579	1.20 (0.44–3.29)	0.7215
Single	0.25 (0.04–1.44)	0.1203	2.02 (0.74–5.50)	0.1706
Health-related factors				
Self-reported good physical health	0.75 (0.20–2.84)	0.6761	0.38 (0.18–0.82)	0.0132
At-risk drinking	2.60 (0.35–19.43)	0.3525	0.64 (0.20–2.03)	0.4463
Smoking				
Never	1	0.1318	1	0.6975
Sometimes or daily	3.29 (0.70–15.40)	0.2323	1.30 (0.34–4.95)	0.0790
Quit	2.36 (0.58–9.62)		2.14 (0.92–5.02)	
Lonely quite often or all the time	14.01 (2.68–73.25)	0.0018	7.84 (3.44–17.88)	<.0001
Work-related factors				
Part-time work	0.93 (0.06–13.11)	0.9577	0.40 (0.10–1.57)	0.1885
Fixed-term work	0.78 (0.15–4.04)	0.7850	0.78 (0.28–2.20)	0.6382
Work satisfaction				
Extremely/fairly satisfied	0.06 (0.01–0.40)	0.0039	0.16 (0.06–0.47)	0.0008
Neither satisfied nor dissatisfied	0.18 (0.02–1.36)	0.0955	0.61 (0.18–2.11)	0.4339
Fairly/extremely dissatisfied	1			
Mental strain of work				
Low	1	0.9922	2.45 (1.01–5.97)	0.0481
Moderate or high	0.99 (0.25–3.95)			
Physical strain of work				
Low	1	0.9521	0.99 (0.44–2.24)	0.9821
Moderate or high	0.96 (0.22–4.20)			
I feel I am neglecting home issues because of my work ⁴	2.21 (0.56–8.68)	0.2574	2.02 (0.88–4.66)	0.0982
I often find it difficult to concentrate on my work because of domestic issues ⁴	0.41 (0.08–2.24)	0.3049	1.96 (0.75–5.14)	0.1705

¹ The reference group of each profession group are those who are not in that profession

² OR=Odds ratio, 95% CI=95% confidence interval. Bold ratios: statistically significant results

³ P-values lower than 0.05 (statistically significant) are in bold print

⁴ N indicates the number of yes answers

good or rather good, which compares well with the physical health status of the general population [67]. In our study self-reported good health was associated with less distress in pastors and in women.

Our study showed that 59% of pastors and 47% of church musicians reported that COVID-19 pandemic had increased their workload. The increase in workload was very close to ours in a previous study (approximately 59% of pastors and 49% of church musicians reported so in [39]). It is important to remember that some workers experienced a decrease in workload (17% of pastors and

26% of church musicians in our study compared to 26% and 33% in [39]).

In our study the share of those who were extremely or fairly satisfied with work varied between 62.9% (Christian youth worker women) and 78.8% (diaconal worker women). Even the highest percentage was lower than it was in Finland 2018 (88%; [68]), most likely reflecting the above-mentioned changes during the COVID-19 pandemic (see also [17]). Previous longitudinal research among pastors and church musicians also shows that work satisfaction among both professions had decreased

Table 3 Logistic regression analysis (odds ratios with 95% confidence intervals) of non-work and work variables with psychological distress (MHI-5 cut-off ≤ 52 points) in two profession groups. Variables were included in the model simultaneously

	Pastors (N=241)		Church musicians (N=92)	
	OR (95% CI) ¹	P value ²	OR (95% CI) ¹	P value ²
Sociodemographic factors				
Gender				
Male	1.13 (0.42–2.99)	0.8097	1.21 (0.17–8.71)	0.8479
Female	1		1	
Age (years)				
under 45	1	0.6873	1	0.9733
46–55	0.80 (0.27–2.38)	0.1272	1.03 (0.15–7.12)	0.5682
56 or older	0.43 (0.15–1.27)		1.76 (0.25–12.25)	
Marital status				
Married/cohabiting	1	0.1558	1	0.4282
Divorced/separated/widowed	2.39 (0.71–7.98)	0.5346	0.22 (0.01–4.79)	0.0774
Single	1.50 (0.42–5.42)		0.08 (0.01–1.32)	
Health-related factors				
Self-reported good health	0.29 (0.12–0.73)	0.0087	2.72 (0.30–24.50)	0.3723
At-risk drinking	0.57 (0.14–2.32)	0.4300	0.30 (0.02–5.35)	0.4160
Smoking				
Never	1	0.5830	1	0.7485
Sometimes of daily	0.68 (0.17–2.72)	0.4638	0.60 (0.03–13.40)	0.7817
Quit	0.63 (0.18–2.19)		0.70 (0.06–8.71)	
Lonely quite often or all the time	8.10 (2.83–23.16)	< 0.0001	24.36 (2.78–213.72)	0.0040
Work-related factors				
Part-time work	1.18 (0.21–6.65)	0.8504	11.28 (0.71–178.18)	0.0854
Fixed-term work	0.85 (0.25–2.83)	0.7859	1.05 (0.10–11.14)	0.9687
Work satisfaction				
Extremely/fairly satisfied	0.22 (0.08–0.73)	0.0133	0.06 (0.01–0.43)	0.0058
Neither satisfied nor dissatisfied	0.67 (0.15–2.96)	0.5973	0.15 (0.01–1.99)	0.1090
Fairly/extremely dissatisfied	1		1	
Mental strain of work				
Low	1	0.5443	1	0.7217
Moderate or high	1.37 (0.50–3.77)		1.33 (0.28–6.40)	
Physical strain of work				
Low	0.83 (0.23–2.95)	0.7722	1	0.4483
Moderate or high			1.89 (0.36–9.82)	
I feel I am neglecting home issues because of my work ³	1.21 (0.46–3.21)	0.6952	4.51 (0.55–37.28)	0.1621
I often find it difficult to concentrate on my work because of domestic issues ³	0.51 (0.13–1.97)	0.3259	4.11 (0.34–50.17)	0.2686

¹ OR=Odds ratio, 95% CI=95% confidence interval. Bold ratios: statistically significant results

² P-values lower than 0.05 (statistically significant) are in bold print

³ N indicates the number of yes answers

during the COVID-19 pandemic and the share of those feeling burdened in their work had increased [69]. In an earlier meta-analysis [21], as in our study, psychological distress was more common in workers with low work satisfaction. The same meta-analysis found that burnout was the most important mediator between work dissatisfaction and mental health problems. If work dissatisfaction causes burnout, it may, if untreated, lead to mental health problems.

Loneliness was the most significant factor in psychological distress in our study. Loneliness is associated with

both physical health problems [70] and mental health disorders [23, 71]. In our study sample the association of loneliness with distress was almost two times bigger in men than in women, but in a previous population-based study [20] the association was equal, and generally women report loneliness more commonly than men [72]. For men, loneliness was the only risk factor for distress in our study, while for women the risk factors also included earlier smoking and high mental strain of work. These findings reflect that loneliness was a greater factor in wellbeing for men than for women in our study sample.

Our results show that the church workers had good physical health, low alcohol consumption and relatively high work satisfaction; these all are sources of psychological wellbeing. Commitment, higher age, and higher educational status can also be factors contributing to the wellbeing of the church workers via increasing work engagement regardless of the specific profession. In general, we did not find major gender differences within the professions, nor did we find major differences between the professions. This could be interpreted to indicate that there is equity in work tasks and working conditions within the Finnish church. This is important, since, as stated, there still are members of the church who do not accept women as pastors [41]. Another possible explanation is that women use the questionnaire scales differently from men: women do not choose 'daily' or 'all the time' options to describe their distress or bad feelings, since they do not find them exceptional, only normal [73].

Strengths and limitations

There have been numerous studies related to pastors' work wellbeing. However, there are few studies conducted among other professions in the church. In this study we have studied psychological distress among church musicians, diaconal workers, and youth workers in addition to pastors. In this study, the special focus was on health and wellbeing on the one hand, and gender on the other. The study was conducted during the COVID-19 pandemic. Even though there are also other studies of church workers both during the COVID-19 pandemic [39] and earlier (e.g., [68]), those studies used different measures for examining well-being. Taken together, the study provides valuable information on the wellbeing among four professions of the ELCF during a special time period. However, this special time period also needs to be kept in mind when reading the results.

The limitations of the study are as follows. (1) We collected the data during the COVID-19 pandemic, and, hence, the data does not include experiences before or after the pandemic. (2) Because the pre-pandemic studies used different measures of well-being, we were rarely able to compare their results to those of our study. (3) The number of respondents was relatively low. Approximately 16% of church musicians who were members of the union, responded; of pastors, the share was 13%, and it was even lower for diaconal workers and Christian youth workers. Due to small sample, we could not report the male diaconal workers' data. (4) It is possible that the attrition of data was selective and that we got responses from those who were specifically interested in the topic. (5) The number of respondents with temporary contracts was low, indicating that one cause of distress was missing in our data. Yet, as stated, the respondents represented

well all dioceses of the ELCF as well as the gender division of the profession groups.

Conclusions

The share of church workers, both men and women and in all four professions, who experienced clinically significant psychological distress (measured by the MHI-5) was higher than in the general population. The results might be indicative of unconscious mental strain or subordination to the prevailing working conditions, especially since the workers had reported excessive work and unclear working conditions already before the COVID-19 pandemic, and these have further increased during the pandemic. We did not find major differences between the professions, nor between the genders, indicating equity in work tasks and working conditions in the ELCF. We call for further research into the elements of distress (as measured by the MHI-5) and experiences of loneliness with church workers in particular and vocational work in general. More attention should be paid to the mental wellbeing of church employees in the workplace, and the workers should be heard more about their working conditions. If mental strain goes unnoticed and is continuously neglected, it may lead to more serious mental ill health.

Author contributions

T.K. drafted the first version of the manuscript. S.V. did the statistical analyses. All authors have contributed to the conception and design of experimental studies and participated in revising the manuscript for intellectual content, and approved the final version of the manuscript.

Funding

The research received no external funding.

Data availability

The data will be saved for five years after the publication of the study, after which they are archived in the Finnish Social Science Data Archive.

Declarations

Ethical approval

The Ethical Review Committee of the Uniarts, Helsinki finds that based on the received material the planned study follows the ethical principles of research in the humanities and social and behavioral sciences issued by the Finnish Advisory Board on Research Integrity. Thus, the review committee states that the mentioned study is ethically acceptable.

Consent to participate

Informed consent was obtained from all participants involved in the study.

Consent for publication

By submitting their responses the participants agreed to the use of the data as part of scientific research, as indicated in the data protection statement.

Competing interests

The authors declare no competing interests.

Received: 10 October 2023 / Accepted: 20 February 2024

Published online: 21 March 2024

References

- Carroll JW. God's potters: Pastoral Leadership and the Shaping of congregations. Grand Rapids, MI: William B. Eerdmans Publishing Company; 2006.
- Turton DW, Francis LJ. The relationship between attitude toward prayer and professional burnout among anglican parochial clergy in England: are praying clergy healthier clergy? *Mental Health Relig Cult.* 2007;10(1):61–74. <https://doi.org/10.1080/13674670601012246>.
- Tervo-Niemelä K. Clergy work orientation profiles and wellbeing at work: a study of the Lutheran clergy in Finland. *Rev Religious Res.* 2016;58(3):365–84. <https://doi.org/10.1007/s13644-016-0247-4>.
- Beebe RS. Predicting Burnout, Conflict Management Style, and turnover among Clergy. *J Career Assess.* 2007;15(2):257–75.
- Mueller CW, McDuff EM. Clergy-congregation mismatches and clergy job satisfaction. *J Sci Study Relig.* 2004;43:261–73.
- Grosch WN, Olsen DC. Clergy burnout: an integrative approach. *J Clin Psychol.* 2000;56(5):619–32.
- Grossley K. Professional satisfaction among U.S. healthcare chaplains. *J Pastoral Care Couns.* 2002;56(1):21–.
- Van der Ven JA. Education for reflective Ministry. Louvain: Peeters; 1998.
- Lewis CA, Turton D, Francis LJ, editors. Clergy work related psychological health, stress, and burnout [Special Issue]. *Mental Health, Religion and Culture.* 2007;10:1–8.
- Hill WE, Darling CA, Raimondi NM. Understanding boundary-related stress in Clergy families. *Marriage Family Rev.* 2003;35(1–2):147–66. DOI: 10.1300/J002v35n01_09.
- Hang-yue N, Foley S, Loi R. Work role stressors and turnover intentions: a study of professional clergy in Hong Kong. *Int J Hum Resource Manage.* 2005;16(11):2133–46.
- Tomic W, Evers W. Burnout among Dutch Reformed pastors. *J Psychol Theol.* 2003;31(4):329–38.
- Kiiski J. Diakoniatyöntekijä- rinnallakulkija ja kaatopaikka. In: Diakoniabarometri 2013. Kirkon tutkimuskeskuksen verkkojulkaisu 33.2013. Web publication in Finnish https://evl.fi/documents/1327140/45386794/Diakoniatyontekijaa_rinnallakulkija_ja_kaatopaikka.+Diakoniabarometri+2013+33.pdf/389f059d-8df6-ad9e-ff48-553acc2746b0.
- Isomäki P, Lehmsmies J, Salojärvi P, Wallenius L. Yksinäisyyden monet kasvot. In: Diakoniabarometri 2018. Kirkon tutkimuskeskuksen verkkojulkaisu 56. 2018. Web publication in Finnish: <https://www.theseus.fi/bitstream/handle/10024/153283/Isomaki%20Paivi%202018.pdf?sequence=1&isAllowed=y>.
- Niemelä K, Kutsumusta. auttamista ja itsensä toteuttamista– Pappien ja kanttorien suhde työhön, työhyvinvointi ja suhtautuminen ajankohtaisiin kysymyksiin Kirkon akateemisten jäsenkyselyssä 2014 [Calling, helping and self-fulfilment– Pastors' and church musicians' relationship to work, well-being at work, and attitude to current issues in the Church Academics' member survey 2014]. Kirkon tutkimuskeskuksen verkkojulkaisu 38. Tampere: Kirkon tutkimuskeskus. 2014. Web publication in Finnish: <https://akiliitot.fi/wp-content/uploads/2021/04/Jasentutkimus-2014.pdf>.
- Porkka J, Valtonen M. Innostava ja kohtaava kasvatus. In: Kirkon kasvatuksen barometri 2020. Kirkon tutkimuskeskuksen verkkojulkaisu 65. 2020.
- Tervo-Niemelä K, Kuusi T, Viertiö S. Kirkon Hengellisen työn työntekijöiden Kokemukset COVID-19-pandemian vaikutuksista työhön ja hyvinvointiin [Church spiritual workers' experiences of the impact of the COVID-19 pandemic on their work and well-being]. In: Kallatsa L, Ojalampi J, editors. Kokemuksia, käytäntöjä ja kohtaamisia rajoituksissa. Koronapandemia Eksistentiaalisena, eettisenä ja uskonnollisena kysymyksenä. [Experiences, practices and encounters with constraints. The COVID-19 pandemic as an existential, ethical, and religious issue]. Helsinki: Suomalainen teologinen kirjallisuusseura; 2023.
- Cuijpers P, Smits N, Donker T, ten Have M, de Graaf R. Screening for mood and anxiety disorders with the five-item, the three-item, and the two-item Mental Health Inventory. *Psychiatry Res.* 2009;15:168.
- McHorney CA, Ware JE Jr. (1995). Construction and validation of an alternate form general mental health scale for the Medical Outcomes Study Short-Form 36-Item Health Survey. *Med Care.* 1995;33:15–38.
- Viertiö S, Kiviruusu O, Piirtola M, Kaprio J, Korhonen T, Marttunen M, Suvisaari J. Factors contributing to psychological distress in the working population, with a special reference to gender difference. *BMC Public Health.* 2021;21:611. <https://doi.org/10.1186/s12889-021-10560-y>.
- Faragher EB, Cass M, Cooper CL. The relationship between job satisfaction and health: a meta-analysis. *Occup Environ Med.* 2003;62:105–12.
- Kendler KS, Myers J, Prescott CA. Sex differences in the relationship between social support and risk for major depression: a longitudinal study of opposite-sex twin pairs. *Am J Psychiatry.* 2005;162(2):250–6. <https://doi.org/10.1176/appi.ajp.162.2.250>.
- Erzen E, Çikrikci Ö. The effect of loneliness on depression: a meta-analysis. *Int J Soc Psychiatry.* 2018;64(5):427–35. <https://doi.org/10.1177/0020764018776349>.
- Li J, Wang H, Li M, Shen Q, Li X, Zhang Y, et al. Effect of alcohol use disorders and alcohol intake on the risk of subsequent depressive symptoms: a systematic review and meta-analysis of cohort studies. *Addiction.* 2020;115:1224–43. <https://doi.org/10.1111/add.14935>.
- Ranjit A, Korhonen T, Buchwald J, Heikkilä K, Tuulio-Henriksson A, Rose RJ, et al. Testing the reciprocal association between smoking and depressive symptoms from adolescence to adulthood: a longitudinal twin study. *Drug Alcohol Depend.* 2019;200:64–70. <https://doi.org/10.1016/j.drugalcdep.2019.03.012>.
- Grant BF, Stinson FS, Dawson DA, Chou P, Dufour MC, Compton W, et al. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders. *Arch Gen Psychiatry.* 2004;61(8):807–16. <https://doi.org/10.1001/archpsyc.61.8.807>.
- Suvisaari J, Aalto-Setälä T, Tuulio-Henriksson A, Härkänen T, Saarni SI, Perälä J, Schreck M, Castaneda A, Hintikka J, Keistilä L, Lähteenmäki S, Latvala A, Koskinen S, Marttunen M, Aro H, Lönnqvist J. Mental disorders in young adulthood. *Psychol Med.* 2009;39:287–99.
- Bromet E, Andrade LH, Hwang I, et al. Cross-national epidemiology of DSM-IV major depressive episode. *BMC Med.* 2011;9:90.
- Markkula N, Suvisaari J, Saarni SI, Pirkola S, Pena S, Saarni S, Ahola K, Mattila AK, Viertiö S, Strehle J, Koskinen S, Härkänen T. Prevalence and correlates of major depressive disorder and dysthymia in an eleven-year follow-up - results from the Finnish Health 2011 Survey. *J Affect Disord.* 2015;173:73–80.
- Kuehner C. Gender differences in unipolar depression: an update of epidemiological findings and possible explanations. *Acta Psychiatr Scand.* 2003;108(3):163–74. <https://doi.org/10.1034/j.1600-0447.2003.00204.x>.
- Hopcroft RL, Bradley DB. The sex difference in depression across 29 countries. *Soc Forces.* 2007;85(4):1483–507. <https://doi.org/10.1353/sof.2007.0071>.
- Banihani M, Lewis P, Syed J. Is work engagement gendered? *Gend Manag Int J.* 2013;28:400–23.
- Remery C, Schippers J. Work-family conflict in the European Union: the impact of organizational and public facilities. *Int J Environ Res Public Health.* 2019;16(22):4419. <https://doi.org/10.3390/ijerph16224419>.
- Lunau T, Bambra C, Eikemo TA, van der Wel KA, Dragano N. A balancing act? Work-life balance, health and well-being in European welfare states. *Eur J Pub Health.* 2014;24(3):422–7. <https://doi.org/10.1093/eurpub/cku010>.
- Frank E, Zhao Z, Fang Y, Rotenstein LS, Sen S, Guille C. Experiences of work-family conflict and Mental Health symptoms by gender among Physician Parents during the COVID-19 pandemic. *JAMA Netw Open.* 2021;4(11):e2134315. <https://doi.org/10.1001/jamanetworkopen.2021.34315>.
- Pekkarinen L. Julkisen alan työhyvinvointi vuonna 2020 [Well-being at work in the public sector in 2020]. Kevan tutkimuksia 1/2021. Web publication in Finnish: <https://www.keva.fi/globalassets/2-tiedostot/ta-tiedostot/tyoelama-palvelut/julkisen-alantyohyvinvointi-2020-raportti.pdf>.
- Potila AK, editor. Raportti kirkon työntekijöiden työoloista. In: Kirkon työolobarometri 2011 [Church Labour Force Survey 2011. Report on working conditions of church employees]. Helsinki: Työturvallisuuskeskus. 2012. Web publication in Finnish: https://evl.fi/documents/1327140/42549564/ttk_kirkon_tyoolobarometri_2011.pdf/97d29e41-3b37-4536-5eec-32101343cc79.
- Geisler M, Berthelsen H, Hakanen J. No job demand is an island. Interaction effects between Emotional demands and other types of Job demands. *Front Psychol.* 2019;10:873. 10.3389/fpsyg.2019.00873.
- Tervo-Niemelä K. Kutsumus pandemian puristuksessa. Pappien, kanttorien ja teologien suhde työhön, työhyvinvointi ja suhtautuminen ajankohtaisiin kysymyksiin AKI-liittojen jäsentutkimuksessa 2022. Suomen ev.-lut. Kirkon tutkimusjulkaisu. Helsinki: Kirkon tutkimus ja koulutus; 2023.
- Papin ydinosaamiskuvaus [Description of the core competences of a pastor]. Web publication in Finnish: <https://kirkonydinosaaminen.fi/pappi.html>. Accessed 16.12.2022.
- Women ordained for thirty years. <https://evl.fi/current-issues/women-ordained-for-thirty-years>. Accessed 20.8. 2023.
- Kanttorin ydinosaamiskuvaus. [Description of the core competences of a church musician]. Web publication in Finnish: <https://kirkonydinosaaminen.fi/kanttori.html>. Accessed 30.11. 2023.

43. Kanttori tuo musiikin seurakunnan arkeen ja juhlaan [The church musician brings music to the daily life and celebrations of the congregation]. Web publication in Finnish: <https://evl.fi/tietoa-meista/toissa-kirkossa/ammatit/kanttori-tuo-musiikin-seurakunnan-arkeen-ja-juhlaan/>. Accessed 29.11.2023.
44. BA of social services, diaconal work. <https://www.diak.fi/en/admissions/degree-programmes/ba-programmes/ba-of-social-services-diaconal-work/>. Accessed 16.12.2022.
45. Nuorisotyönohjaajan ydinosaamiskuvaus. [Description of the core competences of a Christian youth worker]. Web publication in Finnish: <https://kirkonydinsaaminen.fi/nuorisotyönohjaaja.html> Accessed 16.12.2022.
46. BA in Social Services, Christian Youth work. <https://www.diak.fi/en/admissions/degree-programmes/ba-programmes/ba-of-social-services-christian-youth-work/>.
47. Health, Wellbeing and Service Use Study. Finnish Institute for Health and Welfare. <https://thl.fi/documents/155392151/190160361/A1621-3.pdf/84fc162a-9b55-45e1-b411-e2c713f42aca/A1621-3.pdf?t=1504163600473>.
48. The European Opinion Research Group. The mental health status of the European population. Directorate-General Press and Communication. Opinion Polls, Press Reviews, Europe Direct. 2003. https://www.mscbs.gob.es/organizacion/sns/planCalidadSNS/pdf/excelencia/salud_mental/opsc_est19.pdf.pdf.
49. Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use disorders Identification Test. *Arch Intern Med*. 1998;158:1789–95.
50. Lehto AM, Sutela H. Three decades of working conditions. Findings of Finnish Quality of Work Life Surveys 1977–2008. Statistics Finland 2009. Available at https://www.stat.fi/tup/julkaisut/tiedostot/working_conditions.pdf.
51. SAS Institute Inc, Cary, North Carolina, USA, Research Triangle Institute.
52. Berg NJ, Kiviruusu OH, Lintonen TP. Longitudinal prospective associations between psychological symptoms and heavy episodic drinking from adolescence to midlife. *Scand J Public Health*. 2019;47:420–7.
53. Sotkanet. Finnish Institute for Health and Welfare. (<https://sotkanet.fi/sotkanet/fi/index>). Results for age group 20–64 years, high education. Accessed 20.8.2023.
54. Winter T, Karvonen S, Rose RJ. Does religiousness explain regional differences in alcohol use in Finland? *Alcohol Alcohol*. 2002;37(4):330–9.
55. Kuusi T, Haukka J, Myllykangas L, Järvelä I. The causes of death of professional musicians in the classical genre. *Med Probl Perform Artist*. 2019;34:92–7.
56. Lawrence D, Francis Mitrou F, Zubrick SR. Non-specific psychological distress, smoking status and smoking cessation: United States National Health Interview Survey 2005. *BMC Public Health*. 2011;11:256. <https://doi.org/10.1186/1471-2458-11-256>.
57. Cosci F, Pistelli F, Lazzarini N, Carrozzini L. Nicotine dependence and psychological distress: outcomes and clinical implications in smoking cessation. *Psychol Res Behav Manag*. 2011;4:119–. <https://doi.org/10.2147/PRBM.S14243>.
58. De Witte H, Pienaar J, De Cuyper N. Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: is there causal evidence? *Australian Psychol*. 2016;51(1):18–31. <https://doi.org/10.1111/ap.12176>.
59. Zhao Y, Richardson A, Poyser C, Butterworth P, Strazdins L, Leach LS. Shift work and mental health: a systematic review and meta-analysis. *Int Arch Occup Environ Health*. 2019;9(6):2:763–93.
60. Amick BC, McDonough P, Chang H, Rogers WH, Pieper CF, Duncan G. Relationship between all-cause mortality and cumulative working life course psychosocial and physical exposures in the United States labor market from 1968 to 1992. *Psychosom Med*. 2002;64(3):370–81.
61. Kim IH, Muntaner C, Shahidi FV, Vives A, Vanroelen C, Benach J. Welfare states, flexible employment, and health: a critical review. *Health Policy*. 2012;104(2):99–127.
62. Kirkon tilastollinen vuosikirja; Henkilöstötieto 2022 [Statistical Yearbook of the Church; Personnel statistics]. Web publication in Finnish: <https://www.kirkontilastot.fi/viz.php?id=210>. (Accessed 20.8.2023).
63. Karasek R, Theorell T. Healthy work: stress, productivity, and the reconstruction of working life. New York, NY: Basic Books; 1990.
64. Barzilay R, Moore TM, Greenberg DM, DiDomenico DE, Brown LA, White LK, Resilience, et al. COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers. *Transl Psychiatry*. 2020;10:291. <https://doi.org/10.1038/s41398-020-00982-4>.
65. Mao W, Agyapong VO. The role of Social Determinants in Mental Health and Resilience after disasters: implications for Public Health Policy and Practice. *Front Public Health*. 2021;9:658528. <https://doi.org/10.3389/fpubh.2021.658528>.
66. Albert C, Davia MA. Education is a key determinant of health in Europe: a comparative analysis of 11 countries. *Health Promot Internat*. 2011;26:163–70.
67. Parikka S, Koskela T, Ikonen J, Kilpeläinen H, Hedman L, Koskinen S, Lounamaa A. Kansallisen terveys-, hyvinvointi ja palvelututkimus FinSoten Perustulokset 2020 [Baseline results from FinSote 2020]. Web publication in Finnish: thl.fi/finnote.
68. Official Statistics of Finland (OSF): Quality of work life [e-publication]. ISSN = 2342–2890. Helsinki: Statistics Finland. Accessmethod: http://www.stat.fi/til/tyoolot/index_en.html (Accessed: 7.12.2023).
69. Tervo-Niemelä K. Kutsumuksen imu ja työn todellisuus Pappien, teologien ja kanttoreiden suhde työhön, työhyvinvointi ja suhtautuminen ajankohtaisiin kysymyksiin Kirkon akateemisten jäsentutkimuksessa 2018 [Engagement of devotion and reality of work. Pastors', theologians' and church musicians' attitudes to work, well-being at work, and attitudes to current issues in the Church Academic Membership Survey 2018]. Kirkon tutkimuskeskuksen verkkojulkaisu 58. <https://evl.fi/documents/1327140/40900428/Ktk+-+Kutsumuksen+imu+ja+ty%C3%B6n+todellisuus/508cc23e-d76d-9619-f930-c54bb9b90502>.
70. Leigh-Hunt N, Baggeley D, Bash K, Turner V, Turnbull S, Valtorta N, Caan W. An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*. 2017;152:157–71.
71. Nuyen J, Tuithof M, de Graaf R, van Dorsselaer S, Kleinjan M, ten Have M. The bidirectional relationship between loneliness and common mental disorders in adults: findings from a longitudinal population-based cohort study. *Soc Psychiatry Psychiatr Epidemiol*. 2020;55(10):1297–310. <https://doi.org/10.1007/s00127-019-01778-8>.
72. Beutel ME, Klein EM, Brähler E, Reiner I, Jünger C, Michal M, Wiltink J, Wild PS, Münzel T, Lackner KJ, Tibubos AN. Loneliness in the general population: prevalence, determinants and relations to mental health. *BMC Psychiatry*. 2017;17:97.
73. Kuusi T, Viertiö S, Helenius A, Tervo-Niemelä K. Health and well-being of church musicians during the Corona Pandemic—experiences of Health and work-related distress from musicians of the Evangelical Lutheran Church in Finland. *Int J Environ Res Public Health*. 2022;19:9866. <https://doi.org/10.3390/ijerph19169866>.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.