

Proceedings of the Estonian Academy of Sciences, 2023, **72**, 3, 290–302 https://doi.org/10.3176/proc.2023.3.11 Available online at www.eap.ee/proceedings

OCCUPATIONAL WELL-BEING

Occupational well-being of health care teachers – action research at Tallinn Health Care College

Kadri Kööp^{a*}, Ülle Ernits^a, Anneli Vauhkonen^b, Janne Kommusaar^c, Marjaliisa Raiv^c and Terhi Saaranen^b

^a Tallinn Health Care College, Kännu 67, 13418 Tallinn, Estonia

^b Department of Nursing Science, University of Eastern Finland, P. O. Box 1627, FI-70211 Kuopio, Finland

^c Department of Nursing Science, Institute of Family Medicine and Public Health, University of Tartu, Puusepa 1a, 50406 Tartu, Estonia

Received 18 December 2022, accepted 17 March 2023, available online 19 August 2023

© 2023 Authors. This is an Open Access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International License CC BY 4.0 (http://creativecommons.org/licenses/by/4.0).

Abstract. Health care education is facing common challenges of the education sector, such as ageing staff, time pressures, digitalization, and the COVID-19 pandemic. This study is part of a larger participatory international action research titled *Developing Occupational Well-Being of Health Care Teachers in Estonia, 2021–2023.* The objective of the study is to describe and evaluate health care teachers' occupational well-being at the pretest phase of the action research project, as well as to describe the occupational well-being development plan and related development activities at Tallinn Health Care College. The data were collected from health care teachers by an electronical survey (n = 46, response rate 46%). The quantitative data were analysed by statistical methods and qualitative data by deductive-inductive analysis. In general, the teachers were satisfied with their physical environment. Many considered their work important, and they were also satisfied with working time arrangements. Based on the pretest results, an occupational well-being development plan was created. Improving communication and ergonomics were established as the main objectives in the development strategy. These improvement activities have already begun as seminars on communication, bullying, and ergonomics in the workplace and home office. The information can be utilized to develop long-term occupational well-being at Tallinn Health Care College. The results and good practices can enhance decision-making and education at local, regional, national, and international levels.

Keywords: occupational well-being, teacher, health care, education, action research.

1. INTRODUCTION

Well-being is seen as a significant value in our society, i.e., a goal to be pursued. Promoting occupational wellbeing is a key part of well-being because we spend a large portion of our lives at work. The challenges facing health care teachers at work include ageing staff, time pressures, digitalization of work and job management challenges (Thies and Serratt 2018; Saaranen et al. 2020). The sudden change to e-learning (because of COVID-19) and related remote work has brought even more challenges to teaching, working conditions, and the balance between work and family life. Educators had to adapt to this change rapidly (Keener et al. 2021). Investing in teachers' occupational well-being helps them cope with work and beyond, and enables a better quality of promoting teaching and learning (Hyvärinen et al. 2017; Arian et al. 2018; Schleicher 2018). Positive occupational well-being has

^{*} Corresponding author, kadri.koop@ttk.ee

also been identified in several studies as a workplace success factor from an economic perspective, as it affects organizational performance, sickness absenteeism, customer satisfaction and lower employee turnover (Woodworth 2016; Bittner and Bechtel 2017).

Occupational safety is defined as an important factor in a broader concept of occupational well-being (Chari et al. 2018). Occupational safety and health (OSH) management is an approach involving several steps and proactive measures to manage risks at work, and the participation of employees in this process is crucial. Risk assessment can be seen as a key aspect of OSH management. It involves the identification of risks, the introduction of corresponding measures, and ongoing reporting and updating of OSH management approaches. Employees in the education sector are exposed to various OSH risks, such as psychosocial environment, digitalization, musculoskeletal disorders. OSH management and risk assessment are important aspects to ensure the well-being of professionals working at education institutions (Howard et al. 2022).

Working life in Estonia is regulated by various national acts, regulations, and EU directives. The Occupational Health and Safety Act provides occupational health and safety obligations and rights to both the employer and employee. This is to prevent any detriment to employees' health, and to promote their physical, mental, and social well-being. The employer and employees are required to cooperate to ensure a safe working environment and to improve working conditions. The employer is responsible for the internal control and risk assessment of the working environment, appropriate training for employees, and organization of medical examinations for employees whose health may be affected by work, e.g., by noise, vibration, work with display screens and in unnatural positions. In addition, the employer is responsible for prioritizing collective protective measures and the development of overall prevention policy. The risk assessment must include an action plan to prevent or reduce the employee's health risks, and has to be prepared in written form and retained in the working environment database. The employee is required to contribute to the creation of a safe working environment, follow the health and safety requirements, and undergo a medical examination in accordance with the established procedures (Occupational Health and Safety Act 2023). All employees must be treated equally, regardless of their gender (Gender Equality Act 2022), nationality, race, age, disability, religion, beliefs, or sexual orientation (Equal Treatment Act 2022).

Based on Hascher and Waber's systematic review (2021), teachers' well-being has received increasing attention, clarifying the construct of teachers' well-being, adding knowledge about its prevalence, and systemizing predictors and outcomes of teachers' well-being. The concept of occupational well-being can, for example, be a meaningful and smooth activity that supports health and careers in the working environment and in the work community. In different contexts, the concept of occupational well-being is highlighted through related subconcepts with different emphases (Hyvärinen et al. 2017). As to the term, international studies often use 'job satisfaction' rather than 'well-being at work', 'occupational well-being' or 'welfare'. The terms are somewhat overlapping, but differ in some respects, which again creates confusion in the systematic evaluation and use of research data (Saaranen et al. 2015).

In this study, occupational well-being is examined through four aspects (working conditions, work community, workers' resources and work, and professional competence). The factors in these areas can be either resource factors or load factors, i.e., they can either promote or prevent occupational well-being. For the empowerment to be successful, resource factors and load factors have to be balanced (Saaranen et al. 2015, 2021). Also, occupational well-being is not a permanent state but exists under the influence of the mutual balance of load and resource factors. To safeguard and promote occupational wellbeing and health, resource and load factors of both the individual worker and the work community should be sought to maintain a balance. In that case, it is possible for the employee to become empowered and achieve satisfactory well-being and health at work (Fig. 1).

Little research has been conducted on the occupational well-being of teachers in social and health care (Hyvärinen et al. 2017; Saaranen et al. 2020), and the research is predominantly descriptive and presented by charting. Previous research data shows that development needs exist in relation to workload, organizational support, role ambiguity, and wage issues (Arian et. al. 2018; Auxier et. al. 2018; Thies and Serrat 2018; Hampton et al. 2020). In addition, jobs are different, which requires evidence-based research and development appropriate to each profession, based on occupational well-being and related work community factors. The need is for both individual-level (Rinne et al. 2021) and community-level (Laine et al. 2018) intervention research.

Action research has been described as a cyclical process, with slight variations depending on the context of the research and sources (e.g., Lawson et al. 2015; Cresswell and Plano Clark 2018). The cyclical nature of the process is one of the key elements behind action research. It is formulated by means of a spiral-like cycle, where the planning, action, observation, and reflection phases occur several times (e.g., Lawson et al. 2015). During this action research project, one needs to be aware that the research should be flexible, if necessary, and respond to the demands of its environment and participants. Good results have been achieved in action research

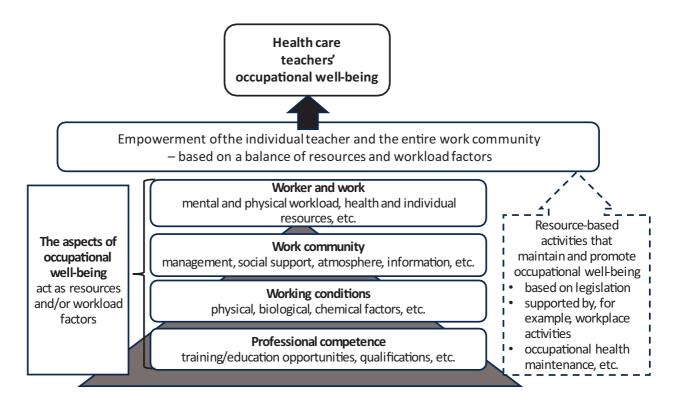


Fig. 1. Occupational well-being of health care teachers as a process of empowerment and related factors (Saaranen et al. 2020).

projects on occupational well-being in the field of education, where occupational well-being activities have been based on the needs of the work community and guided by a clear action plan (Saaranen et al. 2015; Laine et al. 2016, 2017, 2018). Participation, joint ownership and engagement help continue the development work as an educational organization's own development programme when the actual action research project has been completed (Woynarowska-Sołdan 2019).

The objective of this study is to describe and evaluate health care teachers' occupational well-being at the pretest phase of a larger action research project, as well as to describe the occupational well-being development plan and related development activities of Tallinn Health Care College as part of the new development plan at the college. The research questions of this study are:

- 1. What are the pretest results of personal occupational well-being, general occupational well-being of teachers in the work community, and activities promoting occupational well-being?
- 2. What are the pretest results in four aspects of occupational well-being: working conditions, work community, workers' resources and work, and professional competence?
- 3. What are the most important development needs and related activities regarding occupational well-being?

2. MATERIALS AND METHODS

2.1. Action research as a study design

This study uses a participatory action research design, where the researcher and participants work together to understand a problematic situation and develop it for a better outcome. It is a context specific method focusing on the needs of a particular group - teachers working at Tallinn Health Care College. The pretest helped identify which aspect of occupational well-being requires development activities. The definition of development needs was determined together with the Occupational Well-Being Development team (OWE team) of Tallinn Health Care College (ten members) and a research team from the University of Tartu and the University of Eastern Finland. Members of the OWE team are key players in planning and organizing the organization's occupational development activities with the support from the research group. The posttest will be conducted in October 2022, and the results of the development activities are expected in spring 2023.

The research proceeds as a spiral-like cycle, where planning, action, observation, and reflection phases occur several times. These names are not always used for the phases, and they are partly overlapping (Lawson et al.

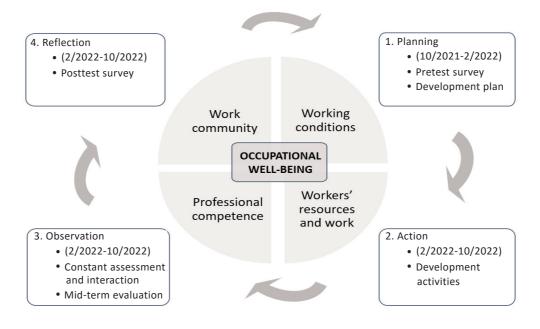


Fig. 2. The action research cycle.

2015). This study combined qualitative and quantitative data to gain a more complete understanding about the state of occupational well-being and development needs (see Creswell and Plano Clark 2018; Fig. 2).

2.2. Questionnaire

The research uses the *Occupational Well-Being of Social* and Health Care Teachers Index Questionnaire. It is based on the Well-Being at Your Work Index Questionnaire by Saaranen et al. (2006), which has previously been used and developed to promote the occupational well-being of school staff in action research projects nationally (Saaranen et al. 2006, 2013) and internationally (Saaranen et al. 2013, 2015; Laine et al. 2018). The original questionnaire was modified and adapted in 2011, 2017 and again in 2020 to measure the occupational well-being of social and health care teachers.

The questionnaire was translated from Finnish into Estonian. The translation was prepared by an Estonian research team and an Estonian philologist. Then the Estonian questionnaire was translated back into Finnish by another philologist. After this, the original and retranslated versions of the questionnaires were crosschecked. Minor changes were made based on this checking (Guillemin et al. 1993). The questionnaire was tested in October 2020 by master's students and teaching staff of the Department of Nursing Science at the University of Tartu (n = 8) and was found to be functional.

The questionnaire contains 95 variables consisting of background variables (22), variables of personal occu-

pational well-being, general occupational well-being of teachers in the work community (2), activities promoting occupational well-being (2), and variables of four aspects of occupational well-being (Likert-scale variables 1-5: 1 = totally disagree ... 5 = totally agree): 1) working conditions (11), 2) work community (23), 3) workers' resources and work (16), and 4) professional competence (19). In addition, the questionnaire has nine open-ended questions about satisfaction with occupational well-being activities and supporting factors and development needs in each aspect of occupational well-being.

2.3. Participants and data collection

The sample of this study consisted of teachers of Tallinn Health Care College (N = 100). The study participants were teachers of vocational education, applied higher education and master's studies, regardless of the subject they teach (teachers of both health care subjects and general subjects were included).

At the end of September 2021, the contact person from Tallinn Health Care College sent the study participants an information letter of the study and a link to the questionnaire (RedCap). The data was collected in October and 46 participants answered the questionnaire (participation rate 46%).

2.4. Analysis

The data was analysed by the SPSS Statistics 27 programme using descriptive and comparative methods applying means, standard deviations, percentages, and correlations. Variables of the four aspects of occupational well-being were combined as sum variables (working conditions, work community, workers' resources and work, and professional competence; scale 1-5). Only the highest and the lowest single variables of the four aspects of occupational well-being are reported. The connections between continuous variables (age, work experience) and occupational well-being were examined by the Pearson correlation, and the connection between the categorical variable (remote work) by the Mann-Whitney test. Only the statistically significant results are reported (significance level p < 0.05; Field 2018). The qualitative data were analysed by deductive-inductive analysis. A sentence or part of a sentence was considered a unit of analysis. This was followed by open coding of the quotations given as answers to the research questions. The four aspects of occupational well-being (working conditions, work community, workers' resources and work, and professional competence) formed the deductive framework under which the coded quotations were transferred into a separate document. Thereafter, the analysis proceeded inductively within each aspect by grouping the coded quotations to form subcategories (33) and categories (9) (Graneheim et al. 2017). In addition, the number of similar statements per subcategory was calculated and reported as a frequency (f).

2.5. Ethical consideration

Responsible conduct of research was followed at all stages of the study and participation was based on informed consent. To inform the subjects about the research aim, voluntariness, and data protection, a participant information sheet was shown as part of the questionnaire. Participants confirmed their participation by completing the questionnaire. Data was collected in non-personal form. Ethical approval of the study was given by the Research Ethics Committee of the University of Tartu (345/T-21), and organizational approval was granted by Tallinn Health Care College. Data was collected, processed, and stored according to the General Data Protection Regulation (GDPR 2016/679).

3. RESULTS

The average age of the participants was 45 years (SD 11.86), and they had been working as a health care teacher for 11 years (SD 9.57). Most participants were women (91%), and most of them (78%) had a master's degree or equivalent. Almost half of the participants (49%) stated that they worked remotely.

3.1. Personal and work community's occupational well-being and promoting activities

On a scale of 0–5, participants rated their personal occupational well-being in this profession at 3.68, and the general occupational well-being of teachers in their work community at 3.56 (SD 0.9). Personal occupational well-being was highly correlated with the general occupational well-being of teachers in the work community (0.828, p < 0.001). Age correlated weakly but significantly (0.304) with personal occupational well-being (p < 0.05). Satisfaction with the activities promoting occupational well-being provided by the employer in the work community was rated at 3.37 (SD 1.18), and self-motivated activities for promoting occupational well-being during free time at 3.39 (SD 1.13) (Table 1).

The implementation of occupational well-being activities (37 respondents) was described as supporting health promoting activities, developing the physical working environment, enabling flexibility, supporting the working

Table 1. Occupational well-being and occupational well-being activities

Variable	Mean	SD	min-max
Occupational well-being			
- I feel that my personal occupational well-being in this profession compared to the best possible level is:	3.68	0.90	1.25–5
- I think that the general occupational well-being of teachers in my work community is:	3.56	0.90	1.25–5
Activities maintaining and promoting occupational well-being			
- My satisfaction with the activities promoting occupational well-being provided by my employer in my work community is:	3.37	1.18	0.25–5
- My satisfaction with the self-motivated activities for promoting occupational well- being that I engage in during my free time is:	3.39	1.13	0.65–5

Scale 0-5: 0 = very poor, 5 = very good

atmosphere and professional development. Regarding the support for health promoting activities, compensation for health promotion expenses (f = 8) was most frequently mentioned. The opportunity for exercise was also suggested, e.g., running track, bicycle ergometer, indoors health trail. The physical working environment was evaluated as pleasant, beautiful, and satisfying, with all the right conditions for effective work. A separate area, such as a modern simulation centre with ergonomic furniture, was highly evaluated.

Teachers stated that flexibility (f = 10) and various collective activities and events (f = 14) were important factors in occupational well-being. The working atmosphere was supported by community factors such as a cooperative team, helpful colleagues, a friendly attitude, mentorship, result-oriented negotiations and recognition. Professional development was supported by developmental interviews, feedback on work, conditions provided by the employer for self-development, and creating opportunities for training and continuous education. It was mentioned that practical measures were satisfactory, but there was a lack of measures to support mental occupational wellbeing (humanity, communication, respect, workload, etc.) and that well-being should be a continuous focus rather than once or twice a year.

3.2. Occupational well-being in four aspects

3.2.1. Working conditions

Teachers rated the overall level of working conditions at 3.94 (mean, SD 0.65). Most participants considered the devices used at work (87%) and lighting in the work premises (85%) to be appropriate, and most regarded a permanent working space as necessary (85%). Participants felt that taking into consideration working posture, ventilation, and noise were the weakest features of their working conditions (Table 2).

The qualitative results supported the quantitative results. The factors related to working conditions that support occupational well-being (37 respondents) were described as working space, environment, equipment, and

opportunity to work remotely. Permanent, private, and a quiet room were mentioned the most (f = 10), and technical equipment was considered important (f = 8). Good lighting (f = 7), suitable temperature (f = 6), ventilation (f = 5), variety of chairs (f = 5), and the opportunity to work remotely (f = 4) were also highlighted.

In addition, teachers (36 respondents) expressed some development needs focusing on working space, equipment and software, ventilation and temperature, and workplace ergonomics. A quieter working space and fewer people in the office at the same time were considered important (f = 5). Some wanted the possibility to regulate the ventilation system (f = 4), and some thought that the temperature was either too cold or too hot (f = 7).

3.2.2. Work community

The mean of the work community aspect was 3.91 (SD 0.63). Teachers felt that their work was important and meaningful (96%), and that the number of meetings was appropriate (94%). The opportunity of collaborative teaching (93%) and joint planning of teaching (96%) were highly rated, and teachers received help from their colleagues (91%). Participants felt that open discussions, opportunities to influence the work community, and equal treatment were the weakest in the work community, and 13% of the teachers experienced bullying. In addition, teachers wanted activities outside working hours (Table 3).

In terms of qualitative results, relationships, atmosphere, collaboration, and management supported occupational well-being in the work community (34 respondents). Support from colleagues was most frequently mentioned (f = 9), as well as good relations (f = 7), open discussions and teamwork (f = 8). Positive feedback, and recognition of teachers were also highlighted.

A need for development (34 respondents) was experienced in management, work organization, distribution of work, and communality issues. Better management information provisions (f = 4), transparent management and reduction of bureaucracy (f = 6), more support and feedback from management (f = 4) were considered a necessity. Work organization, satisfaction with workload

Table 2. Working conditions, %

Variable	Disagree	Neither agree	Agree
		nor disagree	
37. The equipment and devices I use in my work are appropriate.	2.2	10.9	86.9
35. The lighting used in the work premises is good.	4.4	10.9	84.8
33. I find it necessary to have a permanent working space assigned to me.	4.4	10.9	84.7
30. The ventilation at my workplace is OK.	19.6	13.0	67.4
28. My posture has been taken into consideration at my workplace.	23.9	10.9	65.3
34. The noise level at the work premises is not too high.	19.6	19.6	60.9

Variable	Disagree	Neither agree nor disagree	Agree
63. Having an opportunity for joint planning of teaching in a team is important to me.		4.3	95.7
48. I regard my own work in the work community as important and meaningful.		4.3	95.7
62. There is an opportunity for collaborative teaching in my work community.	4.4	2.2	93.4
52. The number of meetings we have in my work community is appropriate.	4.4	2.2	93.5
47. If necessary, I get help and support from my colleagues when facing challenging situations.	2.2	6.5	91.3
54. There is no bullying in my work community.	13.1	23.9	63.0
46. There is sufficient collaboration in my work community.	17.4	21.7	60.8
44. I am satisfied with my opportunities to influence my work community.	19.6	21.7	58.7
45. In my work community, people can openly discuss things related to work.	26.1	21.7	52.2
55. All teachers are treated equally in my work community.	26.1	23.9	50.0
61. The staff spends sufficient time together outside the working hours.	21.7	28.3	50.0

Table 3. W	Vork commun	ity,	%
------------	-------------	------	---

(f = 6), and time management (f = 4) were mentioned as concerns. Regarding communality issues, teachers identified different aspects of communication that should be improved (f = 8) and they wanted more joint activities (f = 6).

3.2.3. Workers' resources and work

Workers' resources and work were evaluated at a mean of 3.67 (SD 0.71). Teachers thought that their physical workload was appropriate (87%), but at the same time 17% considered their mental workload too high. Lifestyle supported their resources at work (80%) and 76% had the opportunity to receive work supervision. Participants were concerned about straining vocal cords, ergonomic working postures, activities to support individual occupational well-being, and division of workload (Table 4).

According to the qualitative results, breaks and activities, teleworking, workload balance, variability in work, personal aspects, and teaching related issues supported occupational well-being (32 respondents). Breaks and activities, relaxation, and exercise opportunities (f = 5) were appreciated. Teleworking and home office opportunities were highly valued (f = 5). Workload balance, optimal workload, equal distribution of working hours, a time management plan, and flexible working hours were indicated. Development needs (30 respondents) were described related to workload and work organization, compensation for activities, and joint activities. Workload and work organization, excessive and uneven workload were highlighted as the main problems (f = 10). Better distribution of work, better time management, workload mapping and analysing were considered a necessity. Compensation for activities, support, and compensatory mental health services were most needed (f = 4).

3.2.4. Professional competence

Participants valued their professional competence highly (total mean 4.18, SD 0.44). Teachers thought that they had sufficient cultural competence (98%), ethical competence (95%), and linguistic and teaching competence (94%). Teachers felt that they had received sufficient education, had sufficient competence in teaching, and the opportunity to make efficient use of their competence in their job (94%). Competencies in project and development activities were rated lower compared to other variables (Table 5).

Factors related to professional competence that support occupational well-being (32 respondents) were described as work and leadership experience, education and continuous professional development, competencies, personal characteristics, good relationships, and research and

Variable	Disagree	Neither agree nor disagree	Agree
67. The physical workload of my work is appropriate.	8.9	4.4	86.7
81. My lifestyle supports my resources at work.	15.2	4.3	80.4
76. I have an opportunity to receive work supervision in my work community.	10.9	13.0	76.1
66. The mental workload of my work is appropriate.	17.4	10.9	71.7
70. I am satisfied with my workload.	19.5	21.7	58.7
69. The strain on my vocal organs is appropriate and I do not have a vocal cord disorder.	15.2	28.3	56.5
 My work postures and movements are ergonomic and cause no musculoskeletal symptoms. 	26.1	19.6	54.3
74. My workplace has provided sufficient activities that have encouraged me to promote my occupational well-being (e.g., sports/cultural vouchers and recreational activities) outside my working hours.	19.5	30.4	50.0
71. My workload is divided evenly and a backlog can be avoided.	36.9	17.4	45.7

Table 4. Workers' resources and work, %

Table 5. Professional competence, %

Variable	Disagree	Neither agree nor disagree	Agree
94. I have sufficient cultural competence required by my work.		2.2	97.8
93. I have sufficient ethical competence required by my work.		4.3	95.6
95. I have sufficient linguistic competence required by my work.	2.2	4.3	93.5
84. I have received sufficient education for the tasks I carry out in my work.	2.2	4.3	93.5
88. I have sufficient competence in planning, implementing and evaluating teaching.		6.5	93.5
86. I have had a possibility to make efficient use of my competence in my job.		6.5	93.5
102. I have sufficient clinical competence in my teaching.	6.5	23.9	69.6
100. I have sufficient competence in project and development activities.	8.7	23.9	67.4

development work. The influence of work experience on professional competence (f = 7) and leadership experience were valued. Professional education, additional training, and developing practical skills were also indicated. Regarding competencies, clinical competence was most frequently mentioned (f = 4), but language skills, professional knowledge and experience, and technological skills were also named.

Development needs (31 respondents) were mostly described as education and competencies. Continuous development of competence, continuous education courses,

and pedagogy courses were required (f = 4). Regarding competencies, developing information technology education was most needed (f = 7), but research and development competence, and improvement of professional knowledge were also indicated.

3.3. Development needs and related activities

As a result of the pretest, two main development needs were highlighted – communication problems and ergonomic problems. The development plan was based on the results of the pretest, and the most important development activities were decided as a result of joint discussions between the OWE team of Tallinn Health Care College and the research team of the University of Tartu and the University of Eastern Finland.

Communication is mentioned as an issue that should be improved. Teachers do not feel that people can discuss work-related topics openly, and they feel that the lack of opportunities negatively influences the work community. They sense unequal treatment of teachers, and even bullying in some cases. To prevent and cope with bullying to increase occupational well-being and develop a positive working environment, an online seminar on bullying has been conducted by a specialist. The College has elected a trustee as the employees' representative, and there are psychologists working at the College. To explain how and when to make an appointment with the trustee and the psychologists, they introduced themselves during an online meeting. Good relations are considered important, and joint events outside working hours are more desirable. To facilitate communication with each other, it is planned to organize joint events outside working hours, e.g., a skating disco has been held for employees and their family members.

Regarding ergonomics, it was noted that working postures have not been evaluated and the ergonomic environment needs improvement. Individual factors are marked as important determinants of occupational wellbeing, and teachers say that their lifestyle affects their resources at work. Therefore, development activities should focus on improving ergonomic conditions, reducing sitting time and increasing physical activity. To provide ergonomic equipment, the necessary resources are planned for the working environment budget. Teachers can try out various ergonomic chairs and choose the one that suits their needs. Teachers could also try out a standing desk and choose one that could be adjusted. Staff members can choose other necessary aids such as footrests. To develop teachers' knowledge of ergonomics, practical seminars on ergonomics and a webinar Home Office Ergonomics were conducted. The instructor of the practical seminars on ergonomics was a lecturer on the subject. The topic was learning how to set up a teacher's own ergonomic workplace. The webinar Home Office Ergonomics was held by an occupational health physician. The topic was about how to ensure that the working environment in the home office would be as ergonomic as possible. To reduce sitting time and increase physical activity, movement breaks and walking meetings are promoted. Regular feedback is requested from the heads of the structural units about movement breaks and walking meetings. The e-course Nutrition and Exercise in Sedentary Work is conducted twice a year by lecturers of Tallinn Health Care College.

4. DISCUSSION

This study described the pretest results of the larger research and development project of Tallinn Health Care College, as well as an occupational well-being development plan and activities based on the pretest results. Both the personal and general occupational well-being of teachers in the work community were rated highly. Teachers who experienced their own occupational wellbeing at a high level also experienced a high level of occupational well-being in the work community. This study also observed that it is typical that personal occupational well-being is rated higher than occupational wellbeing in the work community (Hyvärinen et al. 2017; Laine et al. 2018). In a previous Finnish study conducted during the COVID-19 pandemic, the difference between occupational well-being at the personal and work community level was more noticeable (Rinne et al. 2022). Despite the low level of social contacts caused by the COVID-19 pandemic, occupational well-being in the work community at Tallinn Health Care College was at a high level.

Professional competence was evaluated the highest, and workers' resources and work the lowest of the four aspects of occupational well-being. Based on previous studies, health care teachers evaluate their professional competence as good (Salminen et al. 2013, 2021). Professional competence gives teachers confidence (Nguyen et al. 2018) and helps them cope with the educational arrangements in exceptional circumstances. In autumn 2021, teaching was almost entirely conducted remotely. During that time, arrangements of teaching may also have been related to answers about the amount and distribution of the workload and mental workload, which in this study was partly experienced as inappropriate. In addition, exceptional teaching arrangements and working from a home office may have reduced ergonomic working conditions and physical activity usually experienced when commuting between home and the workplace.

Communication problems and ergonomic problems were highlighted as the two main development needs. It has been observed that the ergonomic environment needs some improvement. The results indicate that the privacy and noise level of the rooms are issues that should be addressed. The respondents found their collaboration to be insufficient, and this could be related to their opinion that communication needs to be improved due to its importance. Work community management and leadership were also mentioned as factors influencing occupational well-being. In the study by Laine et al. (2017), it was noted that leaders have a significant role as members of the work community.

There is an excessive workload and teachers are not satisfied with its division, which they find unequal. According to Singh et al. (2020), the occupational stress of academic nurses is associated with work–life balance, workload issues, and adapting to change. Therefore, workload, time management and optimization should be addressed. Work-related strain and its management have also been detected as a development need in Finnish and Estonian schools (Saaranen et al. 2015). More than a quarter of the respondents (26%) do not feel that they can openly discuss work-related topics, and they feel that teachers are treated unequally. According to Laine et al. (2018), school staff should focus on development work, especially on interaction factors related to the work community, such as the use of time and trust among workers.

Most of the development needs mentioned can largely be attributed to the COVID-19 pandemic – teachers worked remotely without direct physical contact with each other, which could have led to isolation and loneliness. According to Keener et al. (2021), teachers who reported a better quality of life were those who were able to adapt to the changes and challenges mandated during the COVID-19 pandemic. Also, in teleworking conditions, communication is more complicated if there are limited opportunities for physical face-to-face meetings and information exchange. Additionally, the ergonomic conditions for teleworking at home are not as advanced as in offices in college buildings.

Teleworking-related communication problems and ergonomic problems caused by the COVID-19 epidemic can be partially resolved by returning to work in college buildings. Better ergonomic conditions are ensured there, and teachers can communicate with each other directly. The results of the study by Pöysä et al. (2021) revealed that during the COVID-19 pandemic, many teachers experienced occupational stress as well as some increase in stress due to the pandemic. Moreover, the results of the research by Lizana and Lera (2022) suggest that the second wave of COVID-19 profoundly affected teachers' mental health.

However, there are certainly other factors affecting these areas that require more in-depth analysis and action. For example, the curricula of the college include a considerable number of internships in health care institutions, which causes a dense theoretical learning cycle and, as a result, an uneven distribution of workload. Constantly long lecture days are associated with an uneven distribution of workload, which also results in excessive strain on the vocal cords and mental overload. As the volume of internships in the curricula cannot be reduced, it is important to focus more on the development of teachers' time planning skills, as well as on the preparation of lesson plans and the choice of teaching methods. To mitigate excessive strain on the vocal cords, the findings of the study by Nusseck et al. (2022) underline the necessity of specific voice training in teachers' education.

Returning to the college premises helps solve the problems to some extent, but planning various development activities is necessary. For this purpose, a development plan was prepared to solve communication and ergonomic problems. The presence of a trustee and psychologists is an important resource that can prevent communication problems and solve already existing issues. Although this opportunity has already been available for several years, teachers have unfortunately not used it very much. To present the possibilities of how and when to make an appointment with the trustee and psychologists, an online meeting was held, where the trustee and psychologists introduced themselves. To prevent and cope with bullying to increase occupational well-being and develop a positive working environment, an online seminar on bullying was conducted by a specialist. After the seminar written feedback was collected, and an expanded action plan will be compiled based on that information. Regarding the action plan, the college's document on work organization will be supplemented and communicated in the college newsletter. To facilitate communication with each other, joint events are organized outside working hours, although it is hard to find suitable common times for all employees.

The lecturers have emphasized that remote working and teaching in the home environment resulted in a significant increase in sitting time and a decrease in physical activity. According to the research by Sturgeon et al. (2017), prolonged sitting time is a risk factor for all causes of mortality, and nurse educators are particularly at risk due to limited physical activity and increasing use of computers. Therefore, development activities should focus on the improvement of ergonomic conditions, the reduction of sitting time and an increase in physical activity. The goals of the worker and work aspect focusing on promoting general occupational well-being and health by means of occupational health inspections, and an increase in physical activity were also mentioned in the study by Laine et al. (2016). To reduce sitting time, it is possible to come to college auditoriums to deliver lectures, where one can conduct Zoom lessons so that the teacher can stand up and move around. To increase physical activity, movement breaks should be planned consciously during working hours, at meetings and during classes, and walking meetings could be promoted.

Although ergonomic conditions are better at the workplace than at home, there are opportunities for development in that respect as well. Often, teachers have numerous options to adjust their ergonomic workplace, but their actual use of these means is modest. Thus, to develop teachers' knowledge of ergonomics, practical seminars in ergonomics and a webinar *Home Office Ergonomics* were conducted. The results of McAllister et al. (2022) also suggest the need for ergonomic interventions, including ergonomic training and individual ergonomic assessments for those who work from home.

To constantly assess and reflect on the occupational well-being supporting activities, regular feedback and evaluation is carried out and frequent meetings are held with the OWE team and the research team. The posttest in autumn 2022 evaluated occupational well-being after the development activities. After the results of the posttest are revealed, a meeting of the OWE team will be held and a future strategy created, which includes further activities from the perspectives of both work management and the development of occupational well-being in general.

As it is not feasible to simultaneously develop all aspects of occupational well-being, it is important that the planned activities are systematized and prioritized (Saaranen et al. 2015). Successfully coping with persistently challenging times is essential for positive occupational well-being. Therefore, protective factors have to be well understood and communicated. This is important, not only during the COVID-19 pandemic, but for the future as well (Stang-Rabrig et al. 2022).

5. STRENGTHS AND LIMITATIONS

The strengths of this study can be seen in the high participation rate of the questionnaire as well as in the quantitative and qualitative data collection method. The original questionnaire has been widely used nationally and internationally, and the newly developed questionnaire was pretested before use. The response rate can be considered high, although not all potential subjects responded to the questionnaire despite repeated invitations. The reason why the number of participants was not higher is, on the one hand, probably the higher workload of teachers due to the pandemic, on the other hand, the fact that answering was voluntary. Considering that 49% of the teachers responded voluntarily, the response rate can be considered satisfactory.

The quantitative results were supported by the qualitative results. This provided a broad description of the occupational well-being and development needs of Tallinn Health Care College. This study was carried out within a specific work community, so the generality of the results should be treated with caution. However, the results and the development activities carried out in this study can support decision-making beyond this specific context.

6. CONCLUSIONS

Based on the results, teachers in general were satisfied with their physical environment, they felt that their work was important, and they were also satisfied with working time arrangements. The pretest results were taken into consideration when the occupational well-being development plan was created. Improving communication and ergonomics were established as the main objectives of the development plan. Various activities have been planned to promote occupational well-being, and the planned activities have already begun – for example, seminars on communication, bullying, and ergonomics in the workplace and the home office. The information can also be utilized to develop long-term occupational well-being at Tallinn Health Care College. The results and good practices can support decision-making and education at local, regional, national, and international levels.

ACKNOWLEDGEMENTS

On behalf of the entire research group, we would like to thank everyone involved in this project, particularly the teachers and the Occupational Well-Being Development team at Tallinn Health Care College. The publication costs of this article were partially covered by the Estonian Academy of Sciences.

REFERENCES

- Arian, M., Soleimani, M. and Oghazian, M. B. 2018. Job satisfaction and the factors affecting satisfaction in nurse educators: A systematic review. J. Prof. Nurs., 34(5), 389– 399. https://doi.org/10.1016/j.profnurs.2018.07.004
- Auxier, N. and Woodruff, L. 2018. Job satisfaction and intent to leave among dedicated education unit and traditional clinical teachers. J. Contin. Educ. Nurs., 49(12), 575–580. https:// doi.org/10.3928/00220124-20181116-09
- Bittner, N. P. and Bechtel, C. F. 2017. Identifying and describing nurse faculty workload issues: A looming faculty shortage. *Nurs. Educ. Perspect.*, 38(4), 171–176. https://doi.org/10.10 97/01.NEP.000000000000178
- Chari, R., Chang, C. C., Sauter, S. L., Petrun Sayers, E. L., Cerully, J. L., Schulte, P. et al. 2018. Expanding the paradigm of occupational safety and health: a new framework for worker well-being. *J. Occup. Environ. Med.*, 60(7), 589–593. https://doi.org/10.1097/JOM.000000000001330
- Creswell, J. and Plano Clark, V. L. 2018. *Designing and Conducting Mixed Methods Research*. 3rd ed. SAGE, Thousand Oaks, CA.
- Equal Treatment Act. 2022. RT I, 13.10.2021, 2.
- Field, A. 2018. *Discovering Statistics Using IBM SPSS Statistics*. 5th ed. SAGE, London.
- GDPR 2016/679. Regulation of the European Parliament and of the Council.
- Gender Equality Act. 2022. RT I, 22.12.2021, 3.
- Graneheim, U. H., Lindgren, B.-M. and Lundman, B. 2017. Methodological challenges in qualitative content analysis:

a discussion paper. *Nurse Educ. Today*, **56**, 29–34. https://doi.org/10.1016/j.nedt.2017.06.002

- Guillemin, F., Bombardier, C. and Beaton, D. 1993. Crosscultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *J. Clin. Epidemiol.*, 46(12), 1417–1432. https://doi.org/10.1016/0895-4356(93) 90142-n
- Hampton, D., Culp-Roche, A., Hensley, A., Wilson, J., Otts, J. A., Thaxton-Wiggins, A. et al. 2020. Self-efficacy and satisfaction with teaching in online courses. *Nurse Educ.*, 45(6), 302–306. https://doi.org/10.1097/NNE.000000000000805
- Hascher, T. and Waber, J. 2021. Teacher well-being: A systematic review of the research literature from the year 2000–2019. *Educ. Res. Rev.*, 34, 100411. https://doi.org/10.1016/j.edurev. 2021.100411
- Howard, A., Antczak, R. and Albertsen, K. 2022. *Education evidence from the European Survey of Enterprises on New and Emergning Risks (ESENER)*. European Agency for Safety and Health at Work.
- Hyvärinen, K., Saaranen, T. and Tossavainen, K. 2017. Ammatillinen osaaminen työhyvinvoinnin osana: Kyselytutkimus terveysalan opettajille (A teacher's professional competence as part of occupational wellbeing – A questionnaire survey for Finnish health care teachers). *Hoitotiede*, **29**(4), 252–263 (in Finnish).
- Keener, T. A., Hall, K., Wang, K., Hulsey, T. and Piamjariyakul, U. 2021. Relationship of quality of life, resilience, and associated factors among nursing faculty during COVID-19. *Nurse Educ.*, 46(1), 17–22. https://doi.org/10.1097/NNE.00000000 00000926
- Laine, S., Saaranen, T., Pertel, T., Hansen, S., Lepp, K. and Tossavainen, K. 2016. Significance of action plans in the development of occupational well-being in the schools of Finland and Estonia. *Eval. Program Plann.*, 54, 74–81. https://doi.org/10.1016/j.evalprogplan.2015.10.004
- Laine, S., Saaranen, T., Ryhänen, E. and Tossavainen, K. 2017. Occupational well-being and leadership in a school community. *Health Educ.*, 117(1), 24–38.
- Laine, S., Saaranen, T., Pertel, T., Hansen, S., Lepp, K., Liive, K. et al. 2018. Working community-related interaction factors building occupational well-being – learning based intervention in Finnish and Estonian schools (2010–2013). *Int. J. Higher Educ.*, 7(2), 1–14. https://doi.org/10.5430/ijhe. v7n2p1
- Lawson, H. A., Caringi J. C., Pyles, L., Jurkowski, J. M. and Bozlak, C. T. 2015. *Participatory Action Research*. Oxford University Press, Oxford.
- Lizana, P. A. and Lera, L. 2022. Depression, anxiety, and stress among teachers during the second COVID-19 wave. *Int. J. Environ. Res. Public Health*, **19**(10), 5968. https://doi.org/ 10.3390/ijerph19105968
- McAllister, M. J., Costigan, P. A., Davies, J. P. and Diesbourg, T. L. 2022. The effect of training and workstation adjustability on teleworker discomfort during the COVID-19 pandemic. *Appl, Ergon.*, **102**, 103749. https://doi.org/10.10 16/j.apergo.2022.103749
- Nguyen, V., Forbes, H., Mohebbi, M. and Duke, M. 2018. The effect of preparation strategies, qualification and professional background on clinical nurse educator confidence. *J. Adv. Nurs.*, **74**(10), 2351–2362. https://doi.org/10.1111/ jan.13737

- Nusseck, M., Immerz, A., Richter, B. and Traser, L. 2022. Vocal behavior of teachers reading with raised voice in a noisy environment. *Int. J. Environ. Res. Public Health*, **19**, 8929. https://doi.org/10.3390/ijerph19158929
- Occupational Health and Safety Act. 2023. RT I, 11.01.2023, 3.
- Pöysä, S., Pakarinen, E. and Lerkkanen, M.-K. 2021. Patterns of teachers' occupational well-being during the COVID-19 pandemic: relations to experiences of exhaustion, recovery, and interactional styles of teaching. *Front. Educ.*, 6, 699785. https://doi.org/10.3389/feduc.2021.699785
- Rinne, J., Koskinen, S., Leino-Kilpi, H., Saaranen, T. and Salminen, L. 2021. Self-conductive interventions by educators aiming to promote individual occupational well-being – A systematic review. *Int. J. Educ. Res.*, 107, 101755. https://doi.org/10.1016/j.ijer.2021.101755
- Rinne, J., Leino-Kilpi, H., Saaranen, T., Pasanen, M. and Salminen, L. 2022. Educators' occupational well-being in health and social care education. *Occup. Med. (Lond.)*, 72(5), 289–297. https://doi.org/10.1093/occmed/kqac024
- Saaranen, T., Tossavainen, K., Turunen, H. and Naumanen, P. 2006. Development of occupational wellbeing in the Finnish European Network of Health Promoting Schools. *Health Educ.*, **106**(2), 133–154. https://doi.org/10.1108/09654280 610650963
- Saaranen, T., Tossavainen, K., Ryhänen, E. and Turunen, H. 2013. Promoting the occupational well-being of teachers for the Comenius program. *Int. J. Higher Educ.*, 2(2), 159–174. https://doi.org/10.5430/ijhe.v2n2p159
- Saaranen, T., Pertel, T., Streimann, K., Laine, S. and Tossavainen, K. 2015. Occupational well-being of school staff: experiences and results from an action research project realised in Finland and Estonia in 2009–2014. Publications of the University of Eastern Finland. Reports and Studies in Health Sciences, No. 16. http://urn.fi/URN:ISBN:978-952-61-1675-4
- Saaranen, T., Kankkunen, P. and Juntunen, A. 2020. Terveysalan opettajien työhyvinvointi ja sen edistäminen – työntekijän ja hänen työnsä näkökulma (The status and promotion of the occupational well-being of health care teachers – the perspective of workers and their work). *Hoitotiede*, **32**(3), 154–165 (in Finnish).
- Saaranen, T., Kankkunen, P. and Mönkkönen, A. 2021. Työyhteisötekijöillä työhyvinvointia – kyselytutkimus terveysalan opettajille (Occupational wellbeing through community factors – a questionnaire survey to health educators). *Tutkiva Hoitotyö*, **19**(3), 32–39 (in Finnish).
- Salminen, L., Stolt, M., Koskinen, S., Katajisto, J. and Leino-Kilpi, H. 2013. The competence and the cooperation of nurse educators. *Nurse Educ. Today*, **33**(11), 1376–1381. https://doi.org/ 10.1016/j.nedt.2012.09.008
- Salminen, L., Tuukkanen, M., Clever, K., Fuster, P., Kelly, M., Kielé, V. et al. 2021. The competence of nurse educators and graduating nurse students. *Nurse Educ. Today*, **98**, 104769. https://doi.org/10.1016/j.nedt.2021.104769
- Schleicher, A. 2018. Valuing our Teachers and Raising Their Status: How Communities Can Help. International Summit on the Teaching Profession. OECD Publishing, Paris. https://doi.org/10.1787/9789264292697-en
- Singh, C., Cross, W., Munro, I. and Jackson, D. 2020. Occupational stress facing nurse academics – a mixed-methods systematic review. J. Clin. Nurs., 29(5–6), 720–735. https:// doi.org/10.1111/jocn.15150

- Stang-Rabrig, J., Brüggemann, T., Lorenz, R., and McElvany, N. 2022. Teachers' occupational well-being during the COVID-19 pandemic: The role of resources and demands. *Teach. Teach. Educ.*, **117**, 103803. https://doi.org/10.1016/ j.tate.2022.103803
- Sturgeon, L. P., Garrett-Wright, D., Main, E., Blackburn, D. and Jones, M. S. 2017. Nurse educators' occupational and leisure sitting time. *Workplace Health Saf.*, 65(5), 184–187. https:// doi.org/10.1177/2165079916665849
- Thies, K. M. and Serratt, T. 2018. Evaluating association degree nursing faculty job satisfaction. *Teach. Learn.*

Nurs., **13**(2), 71–74. https://doi.org/10.1016/j.teln.2017.1 2.008

- Woodworth, J. A. 2016. Predictive factors impacting intent-tostay teaching for associate degree adjunct clinical nurse faculty. *Teach. Learn. Nurs.*, **11**(4), 147–151. https://doi.org/ 10.1016/j.teln.2016.06.006
- Woynarowska-Sołdan, M. 2019. Implementation trial of school staff health promotion: Polish experiences. *Health Promot. Int.*, 34(5), e47–e58. https://doi.org/10.1093/hea pro/day068

Tervishoiuõppejõudude tööheaolu – tegevusuuring Tallinna Tervishoiu Kõrgkoolis

Kadri Kööp, Ülle Ernits, Anneli Vauhkonen, Janne Kommusaar, Marjaliisa Raiv ja Terhi Saaranen

Tervishoiuharidus seisab silmitsi haridussektori väljakutsetega nagu töötajate vananemine, ajasurve, digiteerimine ja COVID-19 pandeemia. See uuring on osa suuremast rahvusvahelisest tegevusuuringust "Tervishoiuõppejõudude tööheaolu arendamine Eestis 2021–2023". Uurimistöö eesmärk oli kirjeldada ja hinnata tervishoiuõppejõudude tööheaolu suurema tegevusuuringu projekti eelfaasis. Lisaks kirjeldada Tallinna Tervishoiu Kõrgkooli tööheaolu arengukava ja sellega seotud arendustegevusi. Uuringus osales 46 tervishoiuõppejõudu (N = 100). Andmed koguti küsimustikuga, sealhulgas kvantitatiivsete ja kvalitatiivsete muutujate abil. Kvantitatiivseid andmeid analüüsiti statistiliste meetoditega ja kvalitatiivseid andmeid deduktiiv-induktiivse analüüsiga.

Õppejõud olid oma füüsilise keskkonnaga üldiselt rahul. Paljud neist peavad oma tööd oluliseks ning oldi rahul ka tööaja korraldusega. Eeltesti tulemuste põhjal koostati tööheaolu arengukava. Arengustrateegia peamisteks eesmärkideks said suhtlemise ja ergonoomika parandamine. Need parendustegevused on osa kõrgkooli uuest arengukavast. Tööheaolu edendamiseks on kavandatud mitmeid tegevusi, mis on juba alanud seminaridena suhtlemisest, töökiusamisest ja ergonoomikast töökohal ning ka kodukontoris. Uuringu tulemusi saab kasutada pikaajalise tööheaolu arendamiseks Tallinna Tervishoiu Kõrgkoolis. Need võivad parandada otsuste tegemist ning haridust kohalikul, piirkondlikul, riiklikul ja rahvusvahelisel tasandil.