Preventive Medicine Reports 37 (2024) 102534

Contents lists available at ScienceDirect

Preventive Medicine Reports

journal homepage: www.elsevier.com/locate/pmedr

Promoting mental health through collaboration between workplaces and occupational health services – Preliminary findings from a survey and workshop in Finland

Minna Majuri [a,b,*], Mari-Anne Wallius [a]

[a] Finnish Institute of Occupational Health, Finland
[b] University of Helsinki, Faculty of Medicine, Clinicum, Department of Public Health, Finland

ARTICLE INFO

Keywords:
Collaboration
Workplace
Occupationalhealthservice
Mentalhealth

ABSTRACT

Disability due to mental health problems places a significant burden on both society and the individual. Occupational health professionals play a key role in promoting mental health in collaboration with workplaces. Our study focused on the joint preventive mental health practices of workplaces and occupational health services (OHS). We used a multiple method approach. We gathered data in parallel from September to October 2021 through an online survey and a workshop of 102 participants. The survey was sent to 25 workplaces and their OHS (N = 25), and assessed employee perceptions of collaboration in mental health practices. We set no exclusion criteria and included all responses. We used Fisher's Exact Test in the statistical analysis. We studied 140 comments on the means of the mental health support obtained in the workshop, using content analysis. The survey response rate was 78 % (N = 39). The OHS providers (N = 15) claimed that mental health support was being provided through collaboration, and 74 % (N = 24) of the workplaces agreed. Content analysis streamlined collaboration methods into six upper categories: by (1) Planning measures together, (2) Strengthening employees' resources, (3) Discussing work ability, (4) Providing supervisors/managers with support, (5) Discussing and collaborating, and (6) Clarifying responsibilities and roles in the support of mental health. We found 55 different practices for streamlining collaboration between workplaces and OHS. We conclude that the practices to promote mental health through collaboration between workplaces and OHS require joint planning.

1. Introduction

The Organisation for Economic Co-operation and Development estimates the costs of poor mental health to be about 3–4 % of a country's Gross Domestic Product (Arends et al., 2014; Gustavsson et al., 2011). Lifetime data reveal that mental disorders are highly prevalent, as high as 83 % (Schaefer et al., 2017). In Finland, mental disorders are the leading cause of work disability. According to The Social Insurance Institution of Finland, 34 % of sickness absence days (Official Statistics of Finland, 2019), and to the Finnish Centre for Pensions, 53 % of granted disability benefits (Official Statistics of Finland, 2019) are due to mental disorders. These manifestations of poor mental health have partly replaced traditional health concerns at work (Väänänen et al., 2019). Measures intended to promote mental health at workplaces and thus reduce employees' inability to work due to mental disorders are needed. Occupational health services (OHS) play a key role in supporting the health and work ability of employees (Halonen et al., 2017).

The International Labor Organization defines OHS as the discipline that deals with the prevention of work-related injuries and diseases and the protection and promotion of employees' health (ILO, 1985; ILO, 1985). The Occupational Safety and Health Framework Directive 89/391 EEC has marked some fundamental improvements in occupational safety and health in Europe, specifying minimum requirements for safety and health throughout the European Union (EU) (WHO, 2000). Each EU country has transposed the directive requirements into its own national requirements.

The OHS system exists as infrastructure and legislation at the national level in Finland and is described in the European Agency for Safety and Health at Work (Koskela and Sauni, 2012). Finland follows the Government Decree on the Principles of Good Occupational Health Care Practice, the Content of Occupational Health Care and the

* Corresponding author at: Finnish Institute of Occupational Health, Finland.
E-mail address: minna.majuri@ttl.fi (M. Majuri).

https://doi.org/10.1016/j.pmedr.2023.102534
Received 23 December 2022; Received in revised form 31 October 2023; Accepted 3 December 2023
Available online 7 December 2023

Qualifications of Professionals and Experts (708/2013) (708/2013, 2014) and the Occupational Health Care Act (1383/2001) (1383/2001, 2022). The purpose of OHS is to prevent work-related illnesses and accidents, including mental health diseases. It also aims to promote employees' work ability and functional capacity and to help workplaces function more effectively.

The principles of good practice in OHS obligate them to take part in needs-based, planned collaboration with the workplace (708/2013, 2014). Occupational health collaboration entails that the employer, employees and OHS promote employees' work ability by planning and acting together. These shared measures involve a workplace survey (708/2013, 2014; 1383/2001, 2022) and an action plan (708/2013, 2014), on which health surveys and other interventions are based.

Previous research has focused on occupational health collaboration in general (Halonen et al., 2017; Schmidt et al., 2015). A deeper understanding of and further research on the mental health support methods and practices used in the collaboration between workplaces and OHS is needed.

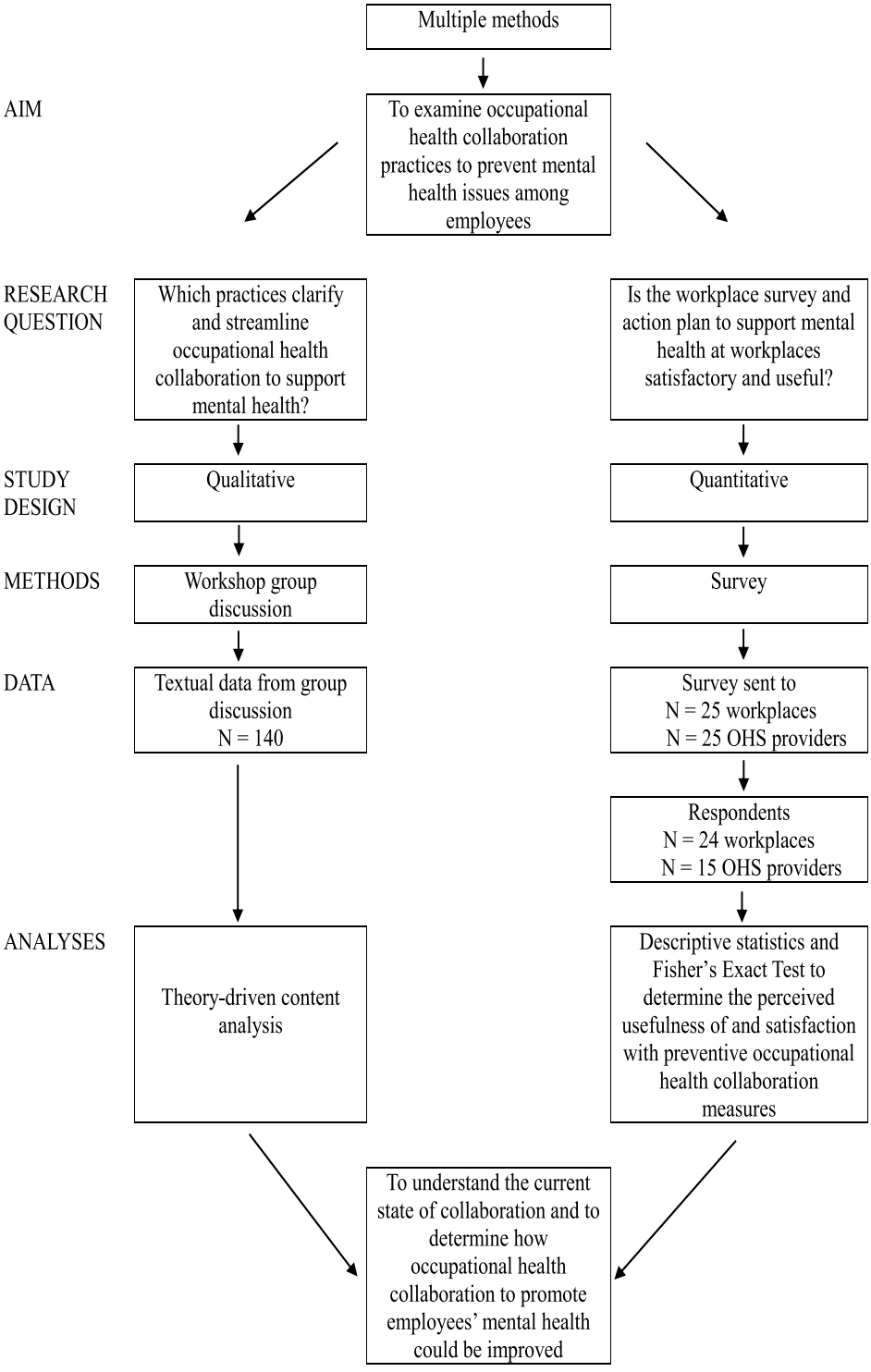


Fig. 1. Study flow. Design of multiple-method study conducted in 2021–2022 to determine the collaboration between Finnish workplaces and occupational health services to promote mental health.

Our goal was to find occupational health collaboration practices that prevent mental health issues among employees. The aim of the present study was to examine workplaces' and OHS providers' perceptions of collaboration in mental health issues. We also assessed workplaceś satisfaction with preventive mental health measures such as the OHS workplace survey and the action plan, and the perceived usefulness of these preventive measures. Our preliminary findings are based on the survey and workshop.

2. Materials and methods

2.1. Study design, setting and ethics

The study design was based on multiple methods (Anguera et al., 2018). The multiple method approach is described in Fig. 1 as a study flow. We used both qualitative and quantitative methods in a cross-sectional study setting to comprehend the current state of collaboration and what could be done to improve this and to promote the mental health of employees in the context of occupational health collaboration. We used data collected in parallel from a survey and a workshop in a project implemented by the Finnish Institute of Occupational Health and Mieli Mental Health Finland. This project, "The Mental Health at Work Program" (Mental Health, 2023), aimed to produce a model in which workplaces collaborate with OHS providers to support mental health in daily life (Institute, 2021). The workplaces and OHS providers that participated in this program were already involved in other projects to improve mental health at workplaces.

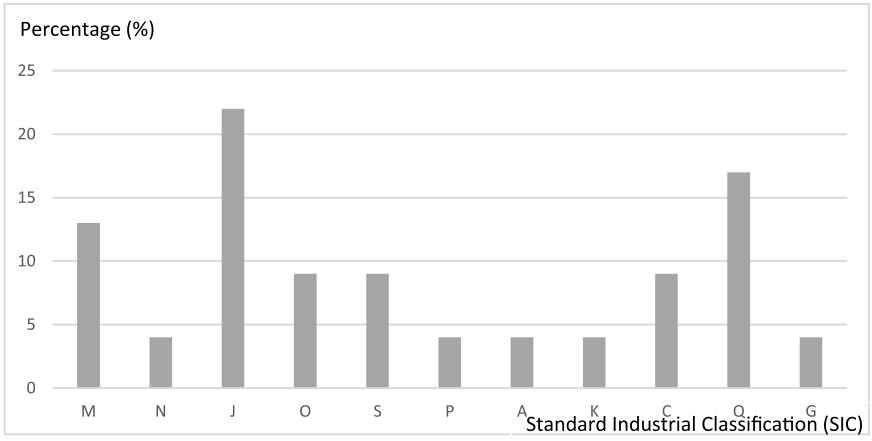
Fig. 1 **Study flow.** Design of multiple-method study conducted in 2021–2022 to determine the collaboration between Finnish workplaces and occupational health services to promote mental health.

In this study, our focus was the collaboration between workplaces and OHS. The theoretical framework of the study was the Finnish legislation on mental health support. In Finland, employers are obligated by law to provide their employees with preventive OHS (1383/2001, 2022). In 2018, approximately 1.9 million Finnish employees (82 % of the total workforce) were covered by OHS (Takala et al., 2019).

The ethics review was waived because the data was collected during a development project. In accordance with Finnish legislation, no research ethics review is required for development projects. However, during the development project, the data became relevant for continuing our research methods. We asked for permission to use the data for research purposes, and the participants consented this. We strictly adhered to data privacy. The information that we collected was on the process level—on the collaboration between workplaces and OHS providers. Quantitative data were gathered using an online survey, which we emailed to the participants. We did not collect direct personal data such as names or personal IDs.

2.2. Participants

In the present study, we used the survey and workshop data collected from workplaces and OHS providers in the "Mental Health at Work Program" development project (Mental Health, 2023). The workplaces and OHS were invited to participate in the project between June and September 2021, in person and via an open registration form. One researcher (MD, PhD) personally contacted OHS chief medical officers and recruited the participating workplaces through their OHS provider. The workplaces indicated their interest in the development project via



SIC	Standard Industrial Classification
M	Professional, scientific and technical activities
N	Administrative and support service activities
J	Information and communication
O	Public administration and defence; compulsory social security
S	Other service activities
P	Education
A	Agriculture, forestry and fishing
K	Financial and insurance activities
C	Manufacturing
Q	Health and social work activities
G	Wholesale and retail trade; motor vehicle repairs

Fig. 2. Percentage (%) distribution of participating workplaces using Standard Industrial Classification (SIC). The Finnish "Mental Health at Work Program" development project studied 25 workplaces. Classified according to the Official Statistics of Finland, Standard Industrial Classification (SIC) 2008.

an open registration form. A total of 25 workplaces and their OHS providers participated in this development project (Fig. 1).

Fig. 2 shows the distribution of the workplaces that participated in the development project by standard industrial classification according to Statistics Finland (Finland and Toimialaluokitus (TOL), 1979). Of the workplaces, 22 % (J) represented information and communication (5 % in working life generally), 17 % (Q) represented health and social services (16 % in working life generally), and 13 % (M) represented professional, scientific and technical activities (7 % in working life generally) (Finland and Toimialaluokitus (TOL), 1979).

Of the OHS providers in our study, 69 % were companies that offered private OHS (medical clinics), 19 % were agencies that offered municipal services (health center's occupational health unit or municipal enterprise) and 13 % were providers of integrated OHS (company-owned occupational health center). The respective figures of OHS providers in Finland overall are 69 %, 22 % and 0.2 % (Takala et al., 2019).

2.3. Survey

The quantitative data were collected using an online survey. The survey invitation was sent to 25 workplaces and their OHS providers between September and October 2021. A reminder was sent once. We considered response to the survey an inclusion criterion. We had no exclusion criteria. Workplaces were instructed in the survey cover letter to respond together, taking into account different actors such as management, supervisors, HR, chief shop stewards, and occupational health and safety representatives. OHS were also instructed to respond as teams, i.e., the occupational nurse, physician, psychologist and physiotherapist at each workplace so that we could assess the current collaboration between the professionals and experts. The survey was jointly completed so that the responses gave all the workplaces and OHS representatives' views of the collaboration processes, and not only one person's opinion. The final analytical sample consisted of 24 workplaces and 15 OHS providers.

The online survey was developed specifically for the present study. Before deployment, it was vetted by an occupational health and work life specialist. The survey topics were based on good OHS practices (708/2013, 2014). The survey assessed the perceived collaboration and how useful the workplace survey and action plan were for supporting mental well-being at the workplaces. Our survey contained statements that evaluated the respondents' experiences, offering three response options based on a nominal scale: "yes", "no" and "I can't say". The "no" and "I can't say" responses were coded as one category. The respondents also rated their satisfaction with current preventive measures on a Likert scale (1 = very dissatisfied… 5 = very satisfied) with an additional "don't know" response option. Categories 1–3 and the "I can't say" responses were combined. Table 1 presents the topics for the survey questions used in this study.

2.4. Workshop

The qualitative data were collected in a workshop in October 2021. One researcher (MD, PhD) conducted the workshop. The research team was made up of occupational health care experts (PhD), and a work life expert (MSc in sociology). Most of the workshop participants knew the research team from previous occupational health collaboration before the fieldwork.

A total of 102 individuals participated in the workshop: from workplaces, OHS and the steering group of the "Mental Health at Work Program" development project. They worked together in ten small groups. Our research question asked how the collaboration on mental health issues between the workplace and the OHS could be clarified and streamlined. The responses represented the answers of each group; hence it was not possible to identify the opinion of individual respondents. The issues that arose in the workshop were documented anonymously on the online-based whiteboard, and this data was then extracted into an Excel table for further analyses.

Table 1
Survey topics. The quantitative data were gathered during September-October 2021 using a survey in Finnish, eliciting background information, topics and satisfaction with the collaboration processes.

Domain	Title	Question
Background	Workplace	What is your workplace called?
	OHS	What is your OHS called?
	Industry	In which industry does your workplace operate?
	Personnel	How many employees does your workplace have?
Priorities of occupational health collaboration	Collaboration between workplaces and OHS	Is mental health taken into account in the collaboration?
Workplace survey	Workplace survey	Is the workplace survey perceived as useful for supporting mental health?
Action plan	Action plan	Is the action plan perceived as useful for supporting mental health?
Satisfaction with OHS' preventive measures	Monitoring and evaluation of measures	Are you satisfied with your OHS' preventive mental health measures?

2.5. Quantitative analyses

We conducted quantitative analyses of the survey data. The characteristics of the participants are presented using descriptive statistics, and the categorial variables are presented using frequencies and percentages to comprehend whether mental health was taken into account in the occupational health collaboration. We used Fisher's Exact Test to examine whether the perceived usefulness of the measures to support mental health at the workplace were related to satisfaction with current preventive practices. The statistical analyses were performed using SPSS Statistics 27 software. Values of $p < 0.05$ were considered statistically significant.

2.6. Qualitative analyses

Two investigators (MAW and SK) approached the workshop discussion group data from the perspective of theory-driven content analyses, which combines the features of both data- and theory-based analysis (Tuomi and Sarajärvi, 2018). The theoretical framework of the study was formed of the key characteristics of occupational health collaboration (Halonen et al., 2017; Schmidt et al., 2015). The workshop data were analyzed in accordance with the principles of deductive content analysis. Initially, an analysis framework was drawn up, the categories of which were formed according to the principles of deductive content analysis. The analysis frame consisted of three concepts: (i) the current status and needs of the workplace, (ii) knowledge and trust of each other, and (iii) role clarity. These concepts are also called the main categories in this article.

We started the analysis by repeatedly reading all the one hundred and forty ideas gathered from the workshop discussions in order to obtain an overall sense of the situation. Before initial coding, we removed the material that was irrelevant to the research question. Next, we read the data word by word to derive codes by highlighting the words that seemed to capture the main thoughts/concepts (Hsieh and Shannon, 2005). Then, we approached the text by making notes on our first impressions of the text and the initial analysis. After this, we sorted the codes into categories according to how they were related and linked (Hsieh and Shannon, 2005). Finally, we merged the related codes to form upper categories and subcategories. Clustering resulted in 55 subcategories. The classification was continued so that the combined subcategories became upper categories (Tuomi and Sarajärvi, 2018; Hsieh and Shannon, 2005). The upper categories were combined until

the compiling concept (i.e., main category) was formed. Our research question —"Which practices clarify and streamline occupational health collaboration to support mental health?"—and the analysis framework guided the reduction and classification of the data.

3. Results

3.1. Participants

The response rate of the questionnaire was 78 % (N = 39). Of the respondents, 62 % (N = 24) represented workplaces and 38 % (N = 15) OHS. Fig. 2 presents the descriptive characteristics of the workplaces that participated in the study.

3.2. Survey results

We assessed how the workplaces and OHS perceived their collaborative mental health support measures. The OHS participants (N = 15) perceived mental health support as being provided through collaboration; 74 % of the workplaces agreed, 4 % disagreed, and 22 % were unable to respond or were not aware of the current situation.

Of the respondent workplaces, 50 % (N = 12) found the workplace survey useful for supporting mental health. However, 25 % of the respondents (N = 6) did not find the survey useful and the same number of respondents could not answer the question. A total of 42 % of the respondents (N = 10) found the action plan useful but the same number of respondents could not answer the question. A further 17 % of the respondents (N = 4) did not find the action plan useful.

Of the workplaces, 13 % (N = 3) were very satisfied and 13 % (N = 3) were fairly satisfied with the preventive measures of OHS. Four per cent (N = 1) of the respondents were very dissatisfied and 42 % (N = 10) were quite dissatisfied with the preventive measures.

The workplaces' satisfaction with the preventive mental health measures of the OHS was not related to the perceived usefulness of the workplace survey ($p = 0.2138$) and action plan ($p = 0.6785$) (Table 2).

3.3. Qualitative results

In the workshop, we looked for ways in which collaboration could support mental health at the workplace. Table 3 shows the main categories (i.e., analytical frame), and upper- and subcategories which were found through content analysis of the workshop material. The upper categories were (1) Planning measures together, (2) Strengthening employees' resources, (3) Discussing work ability, (4) Providing supervisors/managers with support, (5) Discussing and collaborating, and (6) Clarifying responsibilities and roles in the support of mental health.

The current status of the occupational health collaboration and the

Table 2
Mental health support from workplace perspective. Perceived usefulness of measures for supporting mental health at the workplace in relation to satisfaction with current preventive measures.

	Workplace (N = 24) satisfaction	
	Dissatisfied/can't say	Satisfied
	N (%)	N (%)
Is the workplace survey perceived as useful for supporting mental health?*		
No or I can't say	9 (64.3)	3 (30.0)
Yes	5 (35.7)	7 (70.0)
Is the action plan perceived as useful for supporting mental health? **		
No or I can't say	9 (64.3)	5 (50.0)
Yes	5 (35.7)	5 (50.0)

*Fisher's Exact Test, $p = 0.2138$, ** $p = 0.6785$.

Table 3
Results of content analysis of workshop textual data. One hundred and forty ideas gathered from Finnish workshop held in October 2021 (participants N = 102).

Main category	Upper category	Subcategory
Current status and needs of workplace	Planning measures together	Processes agreed in collaboration
		Action plan as a dynamic tool/ instrument
		Roadmap/schedule
		Key indicators, reporting and follow-up
	Discussing work ability	Quick and easy response to silent signals at individual employee and community levels
		Frequent OHS users
		Difficulties coping
		Identifying work disability risks
		Silent signals
		Solution orientation
		Strengthening the role of occupational health negotiations
		Model for work modification
		Early intervention in remote work
		Presence, communication skills, transparency, and a respectful way of working
		Using experienced experts
	Strengthening employees' resources	Discussing mental well-being issues
		Promoting a well-functioning work environment
		Work engagement through job modifications
		Improving the workplace
	Providing supervisors/ managers with support	Support from occupational health professionals
		Supervisors/managers being able to easily contact OHS
		Feedback on workplace level
		Instructions/training in use of instruments for OHS providers' work ability management
		Continuous development and education of supervisors/ managers
		Coaching in work modification means (workplace)
		Emotional management in leadership
		Management consideration of aging employees (workplace)
		Constructive discussion between supervisor/manager and employee (workplace)
		Mental well-being management
Knowing and trusting each other	Discussing and collaborating	Structures and forums for collaboration
		Transparency in collaboration
		Mutual participation and interest of workplace and OHS provider
		Communication
		Regularity, activity, production of material in collaboration
		Common platform for data
		Good communication, common channels
		Feedback model
		Smooth flow of adequate information
		Reporting to steering group
		Steering group, well-being team, workplace meetings, supervisor information Situation reviews
		Diverse utilization of expertise
		Resource allocation

(continued on next page)

Table 3 (*continued*)

Main category	Upper category	Subcategory
		Occupational health psychologist as a resource
		Ethics (impartiality) in OHS' measures
		OHS included in collaboration between workplace and employment pension company
Role clarity	Clarifying responsibilities and roles in the support of mental health	Employers' responsibilities
		Roles and responsibilities of employee explained at start of employment contract
		Employee responsibilities
		Employeés self-direction/self-management
		Workplaces' and OHS providers' responsibilities, collective/ shared responsibilities
		Workplace and OHS provider define roles and responsibilities together
		Informing of responsibilities
		Responsibilities assignment matrix (RACI) as project management tool/instrument
		Defined on roadmap/schedule

needs of the workplace comprised four upper categories (Table 3). Each upper category included several subcategories, which formed practices to streamline occupational health collaboration in mental health support, for example, when the workplace and OHS plan measures together it is useful to see the action plan as a dynamic process—using a roadmap or time schedule lets partners know what to do and when, and the key indicators help them report and follow which measures should be carried out.

One participating group reported:

"*The action plan is a cornerstone of occupational health collaboration, and it should be flexible.*"

Discussions on work ability had 11, strengthening resources 4, and support for supervisors and managers 10 topics for how to improve occupational health collaboration. One group described how work ability negotiations should be strengthened:

"Work ability negotiation as quickly as possible and with a low threshold (supervisor can get in touch if concern is minor)."

Another group highlighted the importance of increasing strength- and resource-oriented discussion on mental well-being:

"Strengths and resources should be made more visible."

One group proposed training for supervisors:

"There is a need for supervisor training arranged by occupational health services."

We found 17 practices related to discussing and collaborating to improve knowledge of and trust in mental health support. The structures and forums of collaboration should be created through open dialogue between workplaces and different OHS providers. Workplace and OHS meeting practices, participants, and agendas should be agreed on in advance. Communication outside official forums should also be close. Processes should be continuously developed through feedback. Collaboration activities and interest in improving processes together should be conveyed in collaboration forums. Electronic and public platforms could be used for communication, and communication should be immediate. The measures taken by the different stakeholders should be openly communicated to employees. Having occupational health psychologists in a multi-professional occupational health team could help correctly allocate resources to where they are needed. One group stated that collaboration needs regular meeting structures:

"Regular meetings and communication are needed on ongoing OHS -related topics."

We found nine practices related to the responsibilities and roles in supporting mental health that could improve the clarity of roles. These included clarifying the roles and responsibilities of employees, employers and OHS; informing of responsibilities; and using tools as a Responsibilities Assignment Matrix, i.e., RACI matrix for managing collaboration. One group said:

"What is the role of OHS and what is the role of the workplace? Roles need to be agreed on together."

Similarly, another group reported:

"The roles of OHS professionals and workplaces need to be clarified."

4. Discussion

OHS perceived the mental health support measures of occupational health collaboration more positively than the workplaces. The perceived usefulness of the workplace survey and action plan were not related to satisfaction with the OHS' preventive mental health measures. Occupational health collaboration could be improved by planning measures together, discussing issues and collaborating, and clarifying responsibilities and roles in supporting mental health. Attention should also be focused on strengthening resources, discussing work ability and supporting supervisors.

Our results are in line with those of previous studies that have defined collaboration as agreement, dialogue between workplaces and OHS, and clear roles and responsibilities (Halonen et al., 2017; Pesonen et al., 2000-luvulla). However, most research has examined the effectiveness of individual support (Ervasti et al., 2022), which may reflect their established use (Takala et al., 2019; Ervasti et al., 2022; Nissinen et al., 2021). On the other hand, the conclusions of work ability assessments, suspected occupational diseases, health and accident risks and workload factors all represent relevant information for workplaces at the work community level (Nissinen et al., 2021). OHS measures target individual employees, but information on the mental health and well-being of the work community and the measures targeted at the workplace level is also important for the employer. This may be one of the reasons why the workplaces did not rate mental health practices as highly as OHS, and supports previous findings of the proportion of people satisfied with OHS being lower at the workplace level than at the individual worker level (Takala et al., 2019).

Our study was the first to evaluate workplace perceptions of preventive mental health measures and the usefulness of workplace surveys and action plans. The previous review assessed customer satisfaction with OHS services in general, and not individual service processes (Takala et al., 2019). We found no statistically significant association between satisfaction with OHS and the usefulness of workplace surveys and action plans. This may be due to the small size of our sample. Further research is needed with a larger sample.

Our study findings show that collaboration can be affected by unclear roles and responsibilities. The roles and responsibilities in collaboration should be defined clearly, using, for example, the RACI responsibilities matrix, which is a project management tool used in complex projects for managing change (Elhady and Abushama, 2015). The RACI matrix definitions are responsible (R), accountable (A), consulted (C), and informed (I). In the context of collaboration, a person who carries out activities such as risk or resource assessments that are required to complete the task, i.e., workplace survey, is called an (R) member. A person who is ultimately accountable for the workplace survey is called an (A) member.

The strength of our research was that it used multiple methods: the quantitative data were enriched by qualitative methods (Anguera et al.,

2018). As regards the reliability of this content analysis study, we attempted to take every phase of the content analysis process into consideration, including the preparation, organization, and reporting of results (Elo et al., 2014; Bengtsson, 2016). Our data collection method was appropriate for answering the research question of interest. The sampling strategy was based on a topic and comprised participants who best represented and had knowledge of this research topic, i.e., the best informants for this study. To increase validity, two investigators were involved in content analysis and performed the analysis separately before discussing the results and making conclusions.

A weakness of our research is its small and skewed sampling. It is likely that the project involved workplaces that have an interest in mental health support measures and whose process may already be going well. However, this can be seen as a strength in developing collaboration between workplaces and OHS. The results are preliminary. The study design does not allow us to derive any causal relationship from cross-sectional analysis. Our results can only cautiously be generalized to work life, due to our small and selective sample. The results may not be directly generalizable to other countries that have different legislation to that of Finland.

5. Conclusion

We conclude that promoting mental health through collaboration between workplaces and OHS requires measures to be planned together. OHS perceived the mental health support measures more positively than the workplaces. Occupational health collaboration requires open dialogue.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

Acknowledgements

We thank Saija Koskensalmi (MSc in sociology), who prepared and analyzed the workshop materials. We also thank Alice Lehtinen, a translator and language editor with expertise on occupational health research, who corrected our grammar errors and helped improve the readability of our text.

We also thank the anonymous reviewers whose suggestions improved the manuscript.

References

1383/2001, 20221383/2001. Työterveyshuoltolaki. Originally published in Finnish, translated in English [Occupational Health Care Act]. Published on internet 19 January 2022. Accessed December 2022. Retrieved from: http://finlex.fi/en/laki/kaannokset/2001/20011383.

708/2013, 2014708/2013. Valtioneuvoston asetus hyvän työterveyshuoltokäytännön periaatteista, työterveyshuollon sisällöstä sekä ammattihenkilöiden ja asiantuntijoiden koulutuksesta. Originally published in Finnish, translated in English [Government Decree on the Principles of Good Occupational Health Care Practice, the Content of Occupational Health Care and the Qualifications of Professionals and Experts]. Published on internet 18 March 2014. Accessed December 2022. Retrieved from: http://finlex.fi/laki/kaannokset/2013/en20130708.

Anguera, M.T., Blanco-Villaseñor, A., Losada, J.L., et al., 2018. Revisiting the difference between mixed methods and multimethods: Is it all in the name? Qual. Quant. 52 (6), 2757–2770. https://doi.org/10.1007/S11135-018-0700-2/METRICS.

Arends I, Baer N, Miranda V, et al. Mental Health and Work: Achieving Well-integrated Policies and Service Delivery. OECD Social, Employment and Migration Working Papers, No. 161, OECD Publishing, Paris. 2014; doi: 10.1787/5jxsvvn6pq6g-en.

Bengtsson, M., 2016. How to plan and perform a qualitative study using content analysis. NursingPlus Open 2, 8–14. https://doi.org/10.1016/j.npls.2016.01.001.

Elhady, A.S., Abushama, H.M., 2015. RACI scrum model for controlling of change user requirement in software projects. International Journal of Application or Innovation in Engineering & Management (IJAIEM) 4 (1), 214–220.

Elo, S., Kääriäinen, M., Kanste, O., et al., 2014. Qualitative content analysis: a focus on trustworthiness. SAGE Open 4 (1), 215824401452263. https://doi.org/10.1177/2158244014522633.

Ervasti J, Kausto J, Leino-Arjas P, et al. Työkyvyn tuen vaikuttavuus Tutkimuskatsaus työkyvyn tukitoimien työkyky- ja kustannusvaikutuksista. Originally published in Finnish, abstract in English [Effectiveness of interventions to support work ability and prevent work disability – Review on effects and cost effectiveness]. Published on internet 26 January 2022. Accessed December 2022. Retrieved from: http://urn.fi/URN:ISBN:978-952-383-131-5.

Finland, T., Toimialaluokitus (TOL), Standard,, 1979. Published on internet. Accessed December 2022. Retrieved from: Industrial Classification (SIC) http://www.stat.fi/meta/luokitukset/toimiala/001-2008/index_en.html.

Gustavsson, A., Svensson, M., Jacobi, F., et al., 2011. Cost of disorders of the brain in Europe 2010. Eur. Neuropsychopharmacol. 21 (10), 718–779. https://doi.org/10.1016/J.EURONEURO.2011.08.008.

Halonen, J.I., Atkins, S., Hakulinen, H., et al., 2017. Collaboration between employers and occupational health service providers: a systematic review of key characteristics. BMC Public Health 17 (1), 22. https://doi.org/10.1186/s12889-016-3924-x.

Hsieh, H.F., Shannon, S.E., 2005. Three approaches to qualitative content analysis. Qual. Health Res. 15 (9), 1277–1288. https://doi.org/10.1177/1049732305276687.

International Labour Organization (ILO). Recommendation R171 - Occupational Health Services Recommendation, 1985 (No. 171). 1985. Published on internet. Accessed May 2023. Retrieved from: https://www.ilo.org/dyn/normlex/en/f?p=1000:12100:::NO:12100:P12100_INSTRUMENT_ID:312509.

International Labour Organization (ILO). Convention C161 - Occupational Health Service Convention, 1985 (No. 161). 1985. Published on internet. Accessed May 2023. Retrieved from: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0:::55:P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NODE:CON,en,C161,/Document.

Finnish Institute of Occupational Health. Mental health support at the workplace – an operational model for occupational health co-operation. Published on internet August 2021. Accessed December 2022. Retrieved from: https://www.ttl.fi/en/research/projects/mental-health-support-workplace-operational-model-occupational-health-co-operation.

Koskela K, Sauni R. OSH System at National Level in Finland. Published on internet 22 November 2012. Accessed May 2023. Retrieved from: https://oshwiki.osha.europa.eu/en/themes/osh-system-national-level-finland#cite_note-:0-18.

Mental Health at Work Programme. Ministry of social affairs and health. Published on internet, last update 8 May 2023. Accessed December 2022. Retrieved from: https://stm.fi/en/mental-health-at-work-programme1.

Nissinen S, Soini S, Palmgren H. Employers' Perceptions of Work Ability Knowledge Management in Collaboration with Occupational Health Services. International Journal Of Occupational Health and Public Health Nursing 2021;1–12; doi: 10.47260/ijhri/721.

Nissinen, S.P., Soini, S., Palmgren, H., 2021. Työterveyshuollon kokemuksia työkyvyn tuen tiedonhallinnasta työterveysyhteistyössä. Originally published in Finnish, abstract in English [The knowledge management of work ability in collaboration with workplaces and occupational health services]. Finnish Journal of eHealth and eWelfare 13 (4). https://doi.org/10.23996/fjhw.109689.

Official Statistics of Finland. Kelan Tilastollinen Vuosikirja 2019. FPA:S Statistiska Årsbok 2019. Statistical Yearbook of the Social Insurance Institution 2019. Only published in Finnish and Swedish [Health Insurance Statistics 2019]. Published on internet 16 November 2020. Accessed November 2022. Retrieved from: http://urn.fi/URN:NBN:fi-fe2020120399332.

Official Statistics of Finland. Tilasto Suomen Eläkkeensaajista 2019. Only published in Finnish [Statistical Yearbook of Pensioners in Finland 2019]. Published on internet 27 August 2020. Accessed November 2022. Retrieved from: https://urn.fi/URN:NBN:fi-fe2020082663201.

Pesonen, S.H., Hakulinen, H., Työterveysyhteistyö, H.JI., 2000-luvulla. kirjallisuuskatsaus suomalaisista julkaisuista. Originally published in Finnish [Occupational health collaboration in the 2000s – a literature review of Finnish Publications]. Sosiaalilääketieteellinen Aikakauslehti 2019;56(2). https://doi.org/10.23990/SA.70404.

Schaefer, J.D., Caspi, A., Belsky, D.W., et al., 2017. Enduring mental health: prevalence and prediction. J. Abnorm. Psychol. 126 (2), 212. https://doi.org/10.1037/ABN0000232.

Schmidt, L., Sjöström, J., Antonsson, A.B., 2015. Successful collaboration between occupational health service providers and client companies: Key factors. Work 51 (2), 229–237. https://doi.org/10.3233/WOR-141855.

Finnish Institute of Occupational Health. Takala E-P, Leino T, Hirvonen M, et al. Työterveyshuollon Toiminta Ja Laatu Suomessa 20Originally published in Finnish [Occupational healthcare service activities and quality in Finland 2018]. Published on internet 2019. Accessed December 2022. Retrieved from: http://urn.fi/URN:ISBN:9789522618917.

Tuomi, J., Sarajärvi, A., 2018. Laadullinen tutkimus ja sisällönanalyysi. Originally published in Finnish [Qualitative research and content analysis]. Kustannusosakeyhtiö Tammi ISBN:9789520400118.

Väänänen, A., Turtiainen, J., Kuokkanen, A., et al., 2019. From silence to diagnosis: the entry of the mentally problematic employee into medical practice. Soc. Theory Health 17 (4), 407–426. https://doi.org/10.1057/S41285-019-00101-4.

World Health Organization. Regional Office for Europe & WHO European Centre for Environment and Health. Occupational medicine in Europe: scope and competencies. Copenhagen: WHO Regional Office for Europe 2000. Published on

internet. Accessed May 2023. Retrieved from: https://apps.who.int/iris/handle/10665/108295.