Title: Moving toward an integrated prevention approach for mental health at work: Promoting workers' involvement through concrete actions

Authors: Lecours, Alexandra[1,2,3], St-Hilaire, France[1,4], & Daneau, Patrice[1,4]

1. Équipe sur les organisations en santé, École de gestion, Université de Sherbrooke
2. Département de réadaptation, Université Laval
3. Center for Interdisciplinary Research in Rehabilitation and Social Integration
4. Département de management et gestion des ressources humaines, École de gestion, Université de Sherbrooke

Corresponding author :

Alexandra Lecours
Département de réadaptation
Pavillon Ferdinand-Vandry
1050, avenue de la médecine
Université Laval
Québec (Québec), G1V 0A6
418 656-2131 #407422
Alexandra.Lecours@fmed.ulaval.ca

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Abstract (200 words):

Background. Work-related mental health problems are a primary cause of disability and lead to the absence of 500,000 workers each week in Canada. There is a growing body of literature suggesting integrated approaches of prevention are necessary to improve mental health at work. The involvement of numerous stakeholders inclusive of government agents, employers, and workers is recommended. However, only minimal information is available to suggest actions workers may adopt toward an integrated approach of prevention to improve mental health at work. **Objective.** The aim of the study was to identify behaviors workers may adopt to foster mental health at work. **Methods**. Following a descriptive qualitative research design, semi-structured interviews were conducted with researchers, professionals, and workers. Data were analyzed using a template analysis strategy. **Results.** A total of 49 concrete behaviors were identified, grouped into ten sub-themes, and three broad themes. These main themes identify those behaviors that appear to be useful throughout the prevention continuum: 1) adopting a reflexive practice, 2) acting for one's own mental health, and 3) acting for mental health of others. **Conclusion.** In harmony with the integrated prevention approach, this study offers a framework to organize workers' concrete actions contributing to mental health.

Keywords: organizational behaviors, well-being at work, template analysis, qualitative research

1. Introduction

Work-related mental health problems are a major public health concern worldwide. More than 500,000 workers are absent from work each week because of mental health problems, and these problems constitute the first cause of disability in Canada [1]. In the United States, 69% of workers consider work as an important factor in their increased daily stress [2]. In addition to financial problems, the consequences of work-related mental health problems may be difficult to handle for individuals, because of a reduction of functioning and a decreased quality of life [3]. Work-related mental health problems may impact on organizations by affecting productivity [4]. For instance, an estimated 15.8 million working days were lost due to mental health problems in the United Kingdom in 2016 [5]. The economic consequences are impressive; in the United States, the burden of workers experiencing major depression exceeds $210 billion [6].

Fostering mental health at work is a concern for various government bodies. Public initiatives of the last decade include the National Standard of Canada for Psychological Health and Safety in the Workplace [1], the Total Worker Health in the USA [8], and the European-Compass for Action on Mental Health and Wellbeing [9]. These initiatives, through guidelines, propose fostering mental health at work must involve several stakeholders, inclusive of government authorities, health professionals, employers, and workers. Prevention in physical health and physical safety in the work environment is a shared responsibility among employers, managers, and workers [10-13]; however, little is known about the contribution of workers and others toward fostering mental health at work [14, 15].

Some theoretical models related to organizational behavior [16, 17] suggest there is an influence of the actions of workers on health, safety, and well-being at work. For example, some actions of workers, such as the use of available resources or communication of issues, may influence the occurrence, management, or relapse of work-related physical problems, such as low back pain or osteoarthritis [18-20]. To the best of our knowledge, no study has defined behaviors that workers may adopt to foster mental health at work, but some studies have regarded the

attitudes (e.g., willingness to involve in work) and mental needs (e.g., feeling of competence) of workers in ability to foster their own mental health [21]. We are aware of only one study that has identified concrete actions workers can take toward mental health [14] and the results of this study describe how workers may reduce the psychosocial risk factors and exposure of their managers through their actions (e.g., offering help) [14]. Although the results of the above study are promising, the actions workers can take to foster their own mental health or that of their colleagues are still unknown. In integrated perspective prevention, which implies a collective responsibility in the management of mental health at work, behaviors need to be identified to enhance actual knowledge and to provide information toward increased awareness of the specific actions workers may adopt to foster their own mental health or that of other members of their work organization.

2. Theoretical background: The integrated prevention approach

In the field of occupational health and safety, integrated prevention is defined through the actions adopted in the primary prevention (i.e., reduce the risk of new cases), secondary prevention (i.e., reduce the duration of a health problem), and tertiary prevention (i.e., reduce chronic disabilities) by various stakeholders, such as managers, insurers, health professionals, or workers themselves [22, 23]. This approach is gaining increasing interest from the scientific community in occupational health and safety because it can help sustain healthy and sustainable employment among workers who are likely to develop or who have suffered an occupational injury or problem [23, 24]. Indeed, authors suggest that actions traditionally associated with the primary, secondary, and tertiary prevention levels are not mutually exclusive and may be beneficial to workers' occupational health and safety throughout the different levels of the prevention continuum [22]. Moreover, adopting a holistic prevention approach will make the boundaries between the levels of prevention permeable and will help harmonize the involvement of the different stakeholders [25, 26]. The integrated prevention can allow a less

fragmented, more concerted, and better-harmonized approach of prevention [22]. Thus, clearly defining the role of the various stakeholders, including the workers, is justified. Although considered a promising avenue, the integrated prevention remains a macroscopic and paradigmatic approach; however, work has been performed in recent years to translate the philosophy of the integrated prevention model into an operational application of prevention behaviors that workers may adopt.

2.1 Preventive behavior in occupational health and safety

The concept of preventive behavior in occupational health and safety is defined by concrete actions workers adopt to protect their own health and safety and that of their colleagues, contributing to the overall health of the organization [27]. The behaviors workers may adopt to foster health and safety are grouped into five attributes, specifically, *1) compliance with safety rules and procedures* (e.g., to wear individual protective equipment or to perform regulated activities, such as lockout); *2) proactivity, participation, involvement, and initiatives related to prevention* (e.g., to attend safety orientation and training or to take part in health and safety committees); *3) maintenance of physical environment* (e.g., to clean workstations or to perform preventive maintenance of equipment); *4) concern for social environment* (to work as a team or to communicate with others); and *5) reflexivity and analysis of work situations* (e.g., to identify risks or to mobilize appropriate knowledge). In the integrated prevention approach, the concept of preventive behavior in occupational health and safety has been used in studies related to primary prevention [27-31] and secondary and tertiary prevention [32, 33]. The concept has been studied solely from the perspective of fostering physical health and safety at work. However, the exploration of the behaviors workers may adopt to contribute to the fostering of mental health at work is also important because health is defined as a state of complete physical and mental well-being [34].

3. Aim

The aim of this study is to identify behaviors workers may adopt to foster mental health at work.

4. Method

4.1 Design

This exploratory study was conducted in accordance with a qualitative descriptive research design [35]. This design is used to describe the personal experiences of individuals about a situation [36]. It is useful in initiating the study of an emerging phenomenon [35, 36].

4.2 Participants

To build new knowledge on the basis of a) scientific, b) professional and c) experiential knowledge, participants from the following three categories were recruited a) occupational health researchers (*n* = 4), b) occupational health professionals (*n* = 12), and c) workers (*n* = 6). To identify behaviors workers may adopt to foster mental health at work based on scientific knowledge, researchers were selected if they had at least five years of research expertise in occupational health, safety, or wellbeing. Occupational therapists, insurance agents, human resource managers, and organizational psychologists were recruited for their professional expertise related to the behaviors workers may adopt to foster mental health at work. Those occupational health professionals were selected if they have at least five years of experience related to workers' mental health. As it is also relevant to collect information from experiential knowledge, workers were recruited if they had been in the labor market for at least five years. Diversification of age, gender, and employment sector was ensured. For instance, participants worked in either sales, finance, industrial or healthcare sectors. They mostly had skilled employment (e.g., sales representative, paramedic).

All participants (*n* = 22; female = 14; male = 8; *mean age* = 44.4 ± 10.9 years; *working experience* = 15.4 ± 9.8 years) were recruited using a purposive sampling method. The Table 1 shows the sociodemographic characteristics of the participants.

Insert Table 1 here

4.3 Procedure

Individual semi-structured interviews were conducted with all the participants (researchers, professionals, and workers, n = 22). The aim was to collect information concerning behaviors workers may adopt to foster mental health at work and to identify concrete actions workers might use to protect mental health at work. Participants were asked to answer the interview questions based on their representation of scientific, professional, or experiential knowledge. The interview was planned to contain five sections related to 1) sociodemographic data (e.g., *age, gender*); 2) introduction questions (e.g., *Tell me about your experience related to the prevention of work-related mental health problems*); 3) behaviors workers may adopt to foster mental health at work (e.g., *What is the role of workers to foster mental health at work?*); 4) characteristics of behaviors workers may adopt, based on the critical incident technique[1] [37] (e.g., *Tell me about a situation where a worker has acted to foster mental health at work*? *What were the behaviors of this worker*?); and 5) closing questions (e.g., *Are there other elements related to the behaviors workers may adopt to foster mental health at work that should be considered?*). The content and clarity of the interview plan were verified by two experts in mental health at work. A pre-test was performed with two participants to ensure the clarity of the interview questions and their sequence. The first author conducted all interviews using the same sequence for all the participants. The pre-set order of questions was not methodic and could vary to allow for individual participant structuring of thoughts. The interviews lasted an average of 42.06 minutes (range: 28.48–57.41) and were recorded with digital audio.

4.4 Analyses

The interviews were transcribed into a textual format and were then exported in the Qualitative Data Analysis (QDA) Miner 5 software for the qualitative analysis. Data were examined using the

[1] The critical incident technique is an interview method that collects information about human behavior based on a lived situation (Dennis & Flanagan, 1954).

template analysis as an analytical strategy. The template analysis is a form of thematic analysis that is compatible with several qualitative research designs [38-41]. This analytical strategy was preferred because of its flexibility and usefulness in the exploratory study [39]. The template analysis allows flexibility to include *a priori* codes from the literature and *a posteriori* codes emerging from empirical data [38]. The template analysis permits the absence of rules about the number of hierarchical themes, sub-themes, and codes [40]. This feature allows highlighting differences in depth and richness between the various characteristics of an emerging topic [41]. In the context of this exploratory study, the template analysis was a relevant analytical strategy to achieve the research objective.

4.4.1 Template construction procedure. A three-step template construction allowed for use of the literature as a starting point in the coding process and allowed codes to be withdrawn, modified, or added based on empirical data.

Step 1. An initial template was constructed from the existing literature [38, 39] related to the prevention of work-related health problems. The initial template was developed by the first author. The second author analyzed the accuracy of the template, and adjustments were made. This initial template contained 22 behaviors that workers may adopt to foster mental health at work, grouped into six themes.

Step 2. After applying the initial template to a subset of seven interviews thought to be representative of all datasets [40], several modifications were performed to ensure codes represent empirical data, and an intermediate template was created. The first and third authors realized this step. After each author separately coded the data subset, the analysis team conducted a review of the coding results through a peer-debriefing process [42]. During peer debriefing, new codes, which had not yet been captured by the coding template, were identified. In addition, inaccuracies in some codes were addressed and led to a refinement in this intermediate template. Then, the second author verified the codes assigned and template structure to ensure consistency. An iteration process was followed, which allowed the creation

of successive versions of the template until all three authors were satisfied that the template fully represents the data [41]. This intermediate template contained 44 behaviors grouped into 10 sub-themes and three broad themes.

Step 3. A final template was created after implementation, modification, and replication with all interview data (*n* = 22) [38, 40]. This step was conducted by the first author. This final template was iteratively developed through its application to transcripts interspersed with periodic meetings of the research team. This regular communication between researchers heightened their reflexivity and guarded against undue influence of any one person's perspective. This final template contained 49 behaviors grouped into 10 sub-themes and three broad themes.

This three-step analytical process is innovative because textbooks on the template analysis mostly suggest a two-step analysis comprising an initial template based on a subset of data *or* the literature and a final template based on all data corpus [38, 40]. The methods used in this study, including the template construction based on 1) the literature, 2) subset of data, and 3) all data corpus, are intended to allow a deeper level of analysis and a finer understanding of the concept to analyze.

To ensure reliability, a random selection of 33% of the interview responses was independently coded by the third author to enable the calculation of interrater reliability. A Scott's Pi score of 0.68 (percentage of agreement of 85.3 %) was obtained, which is acceptable [43].

4.5 Ethics

The participants freely and voluntarily agreed to take part in the study, and no incentive was offered. This project was approved by the Ethics Committee for Research of the [Edited for Review Process]

5. Results

The results of the study revealed 49 concrete behaviors that workers may adopt to foster mental health at work. These behaviors are grouped into 10 sub-themes and three broad themes, which are 1) adopting a reflexive practice, 2) acting for one's own mental health, and 3) acting for the mental health of others. Tables 2 to 4 shows the final template[2] resulting from the data analysis process.

Theme 1. Adopting a reflective practice

The results suggest behaviors workers may adopt to foster mental health at work, inclusive of the adoption of a reflective practice about one's role as a worker. As shown in Table 2, the first theme includes specific behaviors related to the ability of workers in *analyzing their work situations*, *self-assessing* as workers, and *making decisions for mental health at work*.

Insert Table 2 here

1.1 Analyzing work situations

The first behavior refers to the ***identification of risks of mental health problems*** in work situations. A participant explains that "workers [...] have to determine the main stressors in the workplace" [OHP-14].[3]

1.2 Self-assessing

The participants revealed that workers have a responsibility to self-assess by ***analyzing their operating processes*.** In this sense, the participants talked about the importance for workers to

[2] For the purpose of writing this article, only the final template is presented. The initial and intermediate versions of the template can be obtained by contacting the first author.
[3] Letters and numbers in hooks refer to participants' characteristics. The letter represents the type of participants (OHP = occupational health professional, OHR = occupational health researcher, W = worker), and the number refers to participants' number (1 to 22)

show introspection, to “see themselves go”, and to “question themselves, to question their practices” [OHP-13].

This reflexive process should lead workers to ***recognize that they may be experiencing signs and symptoms of mental health problems***. This awareness is often a trigger for decision making and behavior change required to improve a situation. A worker says:

> *In the last years, I had physical discomforts, skin problems, things like that, and it was linked to stress. I then said to myself, “OK, I have to do something because my job poisons my life.”* [W-20]

1.3 Making Decisions

Another behavior workers may adopt to foster mental health at work is to ***establish priorities*** consistent with their values. A professional said that if the priorities of workers are done in agreement with personal values, “behavior will be consistent with choices and it will promote mental health” [OHP-01]. An end-of-career participant spoke of what allow workers to maintain good mental health at work and indicated that “as workers, we make choices […]. We must be able to make choices according to who we are to not have the feeling of being exploited, abused” [OHR-02].

The ability to ***respect personal limits*** and to ***psychologically detach from work*** are other behaviors that emerged from the interviews. These behaviors are crucial for workers to maintain mental health at work. The following responses bear witness to this.

> *I can tell you about myself, what did I do? What I did was that after five o’clock, I decided to stop working. It means that before, I used to watch my e-mails [during weekends]. I have now decided that I do not watch e-mails from my organization during weekends. I wait to arrive at the office on Monday. I did that because that’s what brought me to exhaustion [...] the fact that I never got off. So, I did that.* [OHP-08]

It's trying to get off, not to live what is happening at work personally, but to live it as a worker, try to have a mental distance, which is not always easy. […] when you go home at night, when you go to sleep, try not always to think about the events that happened [at work]. [W-21]

This sub-theme comprises the behavior of ***changing job***. This ultimate behavior may occur when workers feel the job or the organization does not allow them to act in accordance with their values. A participant who switched job to preserve her mental health explains,

Also, like me, who decided to change job, because it had a negative influence on my personal life. The most important thing in life is my family: my children and my boyfriend. I had a great life, but I was not there [to live it]. I did not take advantage of it. My children used to go to the park with my boyfriend. It was always my boyfriend who took care of the children. Where was I during that time? I was at work […]. That's not what I want my life to look like. [...] You can try to change things [at work], but when you do not see there are any ends, well, the only responsible is you [...]. At some point, it goes through us, when we are not well [it's up to us to make the necessary changes]. [OHP-03]

Theme 2. Acting for one's own mental health

The second theme refers to actions workers may adopt for their own mental health. As shown in Table 3, this theme includes specific behaviors related to *communication*, *use of available resources*, *adoption of a healthy lifestyle*, and *investment in work*.

Insert Table 3 here

2.1 Communicating

Regarding communication, the participants mentioned the importance to "raise the hand" [OHP-13] or "to raise the flag" [OHP-08] when workers have reached their limit or when they need help. The participants explained the importance for workers to ***denounce problematic situations*** they experience. A manager explained how a worker was able to ***express her needs*** to protect her mental health: "I think to preserve her mental health, she told us 'I have to take leave, I have to take time off'" [OHP-09].

2.2 Using available resources

Another behavior workers may adopt for mental health is to ***use available resources***, such as workers' assistance programs, health services, or social services. This excerpt illustrates this responsibility of the worker to use resources: "If at any given moment you feel you are releasing your shield, go seek help, go to refurbish your toolbox, go consult [...] to be proactive in this search for tools" [OHP-01].

2.3 Adopting a healthy lifestyle

Most participants talked about the importance for workers ***to adopt healthy habits*** to preserve mental health. They expressed ideas about the benefits of physical activity, sleep, diet and ***having means to manage stress***. A participant explained how a phone application helped her to manage stress.

> *What helped me a lot last year, it's not a long time ago, it's an application I downloaded on my phone called "Breath." It helps me to think about breathing [...]. Because I do a lot of stress, I'm a pretty nervous person, so I really have to be careful.* [W-20]

The ***maintenance of the balance between work and personal life*** concerns how having leisure activities can enable workers to act to foster mental health.

> *If you have nothing else in your life of interest [than work], it may be that you give everything to work and that you cannot manage yourself. Because basically, if*

you're tired at night, it's not so bad because you go to bed. But if you have an outing, if you have a hobby, if you have a yoga class, if you have a dance class or whatever, it's going to help you reframe and tell you: "It would be nice if I still have some energy for the dinner with my friends tonight or to go to my karate class or whatever." [OHP-16]

2.4 Investing in work

Workers may invest themselves in work. The participants expressed this idea as ***realizing quality work*** but also as ***organizing work***, as described in the following extract. "You know, what I see today is that taking the time to organize your work is also part of working. [...] For me, having answered all the requests with excessive delays brought me there [in exhaustion]. Now, I take a little more time to organize my work" [OHP-08].

Theme 3. To act for the mental health of others

The third theme that emerged from the analyses concerns the behaviors workers may adopt to foster the mental health of others. As shown in Table 4, this theme comprises behaviors related to workers' *involvement in the organization*, *team working*, and *caring about colleagues*.

Insert Table 4 here

3.1 Involving in the organization

One possible action for workers to foster the mental health of others is the ***involvement in organizational committees*** and ***participation in activities***. The following participant explains how workers have the power to improve work-related mental health problems.

I have a worker, whom I have in mind, who has decided to get involved in the union. He figured it might be a vehicle with which he can educate people and say: "it's not jokes, it's true that workers suffer and that it's difficult." After that, did he do it and

did it work? I do not know, but it was one of his wishes to get involved in the union because at that time, it was the lever he found. [OHP-01]

Other participants spoke of the importance for workers to adopt a positive attitude and to know how ***to raise the positive aspects of a situation***. A participant said that "to cultivate good humor with our team, I think it's everyone's responsibility to work in pleasure" [W-18].

Several participants discussed the importance for workers to ***openly talk about mental health*** to normalize the subject. A participant explains how this openness is now greater in her organization.

Workers speak more about it [mental health]; they are less embarrassed to speak about it; you can have a problem of mental health or burnout the same way [of any other physical problem]. In any case, in our organization, it is more open to talk about it. [OHP-08]

One behavior workers may adopt is to ***propose solutions***. Some participants go further by stating it is the duty of workers to ***insist that problematic situations be corrected***. Accordingly, a participant explains how he and his colleagues have mobilized using social media to claim changes.

People have mobilized on Facebook to say that we should have more resources than that, we all got together, and it made things better because we now have a system that has improved. We got together, and it had more influence than if it's only one person. [W-22]

3.2 Working as a team

Exchanging, helping each other, sharing tasks between colleagues, and ***collaborating*** are behaviors workers can adopt. This excerpt explains how collaboration contributes to fostering the mental health of others.

Team goals too I would say, I've seen that a lot to help mental health. Everyone is then talking together. Teamwork minimizes chances that people are working

individually and they're trying to hurt their colleagues, because everyone is in the same boat. My spouse works in another financial institution and they have team goals. [...] There is more support and there is less nudging because the team has to go well, there are fewer stealing between files. [W-17]

3.3 Caring about colleagues

The last type of behavior that emerged from the analysis concerns caring about colleagues. The participants talked about the importance of ***organiz**ing* **social activities*** outside of work. The following excerpt illustrates how this kind of activity allows for caring about others.

Social activities, doing activities outside of work, being together in another context [than work]. We do not necessarily talk about mental problems, but we get off and it's a moment to create links so that we can talk to each other more or create links with people who are less familiar to us. In social activities, we discover affinities and we realize that it would be easier to talk with some people [if we need to]. [W-22]

All the participants named behaviors related to ***being attentive to colleagues***. The participants mentioned **r*ecognizing signs and symptoms in others, listening to others***, and ***asking after others***. The following excerpts present, respectively, the examples of these last three behaviors that workers can adopt toward others.

Colleagues who see people changing in their mental health status, in their functioning, have a responsibility to go talk to the person and say, "What's going on?" [OHR-06]

I really like the peer-help approach. They [peer helpers] are not therapists, they are workers who have the same status as others. What are peer helpers? They do their job the same as the others, but they have a small listening ear to detect signs, signals, and early symptoms of distress and try to intervene and refer to worker assistance programs, etc. The peer helper will do that, detect and refer, these are my two keywords. [OHR-07]

"How are you? What's going on? You can tell me about it. [OHR-04]

The participants raised the importance for workers to offer help to colleagues, when needed, whether by ***helping to complete a task, advising from their own experience***, or ***referring to a resource***. For example, a participant explained that she finds herself "of good advice because she lived it [a mental health problem]" [OHP-08].

Another behavior workers can adopt to foster the mental health of others is recognizing colleagues. The participants named several actions of horizontal recognition, such as ***paying attention to colleagues, encouraging colleagues***, or ***thanking colleagues***. The following excerpt illustrates a concrete means that allowed workers to pay attention to colleagues.

> *Last May, all workers decided to team up with two or three people and pay attention to other workers. For example, I received sweets and a big pencil because I sign a lot of contracts as being in human resources. It was nice. People came to see us in our office and took a moment with us to congratulate us on our work.* [OHP-08]

6. Discussion

The aim of this qualitative study was to identify behaviors workers may adopt to foster mental health at work. The precision and depth of behaviors identified provide a detailed understanding of the contribution workers may have to the management of mental health at work. This study is a first step and future studies are needed. The study results contribute to the knowledge in the field of organizational behavior, especially promoting mental health at work and application of the integrated prevention approach.

6.1 Are behaviors used to foster mental health in the workplace the same behaviors adopted to promote physical health and safety?

The organizational behavior literature suggests workers may adopt behaviors to foster 1) physical health and safety, 2) mental health, and 3) physical and mental health.

The literature offers examples of specific behaviors workers may adopt to foster physical health and safety in the workplace, such as *compliance with safety rules and procedures* or *maintenance of physical environment* [27].

This study contributes to the existing literature by adding to the knowledge about the behaviors workers may adopt to foster mental health at work, specifically by identifying concrete actions, such as *self-assessing*, *investing in work*, or *caring about others*.

Some behaviors seem to relate more to physical health and safety and other behaviors link more directly to mental health; however, our results can be interpreted to show several behaviors seem to contribute to physical health and mental health. For example, *analyzing work situations* was found to be a contributing behavior in preventive behavior in occupational health and safety [27]. This finding suggests workers contribute to the prevention of both physical and mental health problems when workers analyze work situations.

We found similarities in behaviors associated with *working as a team* with those related to *concern for social environment* for preventive behavior in occupational health and safety [27]. Collaborating or helping each other seem to be actions used to contribute to physical health, safety, and mental health at work.

Similarities were found between *using available resources* and *involving in the organization.* The present study found the behaviors in occupational health and safety related to the *proactivity, participation, involvement*, *and initiatives corresponded to prevention*. These behaviors all reference getting information about health and taking part in committees.

Other studies are needed to confirm our findings, but this study suggests many behaviors workers adopt may contribute to mental health and physical health. In accordance with this interpretation, individuals' behaviors have been found to correlate with mental health and physical health [44]. This finding reinforces the hypothesis that health at work is a broad concept

that includes physical and mental aspects, as suggested by the *Workers' Health: Global Plan of Action* of the World Health Organization [12].

Researchers and professionals in a variety of disciplines associated with physical health, safety, or mental health would gain to build knowledge and to promote adoption of prevention behaviors among workers. This type of cooperative interdisciplinary effort may contribute to the body of knowledge fostering mental health at work. The results of this study provide a clear perspective of the behaviors to promote among workers. This study can serve as encouragement for deeper collaboration among the disciplines focused on workers' health.

6.2 How does this study contribute to the integrated approach of prevention at work?

The scientific literature shows intervention by varied stakeholders is necessary to effectively promote workers' health [12, 23, 26, 45-47]. Many papers on this subject addressed the role of managers [14, 15] or the role of health professionals [32, 33]. The authors of this study made the decision to include the contributions of workers as the main component of the research. The study results contribute to the integrated prevention approach by proposing an operational application related to workers' behaviors.

By identifying 49 concrete actions, we are suggesting behaviors to be beneficial throughout the mental health prevention continuum. Interpretation of our study results suggest the behaviors adopted by workers can be beneficial in primary prevention, secondary prevention, and tertiary prevention. For example, *exposing one's limits* may be useful in primary prevention to avoid developing a work-related mental health problem. This same behavior may be used as a secondary prevention if workers experience symptoms of work-related mental health problems and take steps to avoid and reduce the source of aggravation. This behavior of *exposing one's limits* can have a beneficial effect in tertiary prevention, especially to avoid relapse during a return to work following a period of disability. These results agree with Roquelaure (2016) observations by suggesting a combined three-level approach of prevention can be effective if

primary prevention actions remain ineffective. The severity of problems can be reduced and prognosis can be improved by using these actions at any stage of the prevention continuum [45]. This study brings a unique contribution to the literature in support of the implementation of the integrated prevention approach [22]. Our research proposes prevention actions to go beyond the traditional prevention barriers.

6.3 Limitations of the study and directions for future research

Although this study makes important contributions to the advancement of knowledge, some limitations should be discussed. Despite these limitations, the innovative theme and the rigorous and detailed methodology contribute to the relevance of this study.

The qualitative exploratory research design used to conduct the study, compounded by the small sample size, imply theoretical saturation has not been reached. Further investigations with a larger number of participants, particularly more unskilled or semi-skilled workers, are needed to obtain a deeper and more holistic understanding of the phenomenon. Additional studies including more workers may contribute increasing knowledge based on the lived experience of these central stakeholders.

The bias of social desirability may have been present during data collection. Indeed, the results of this study are based on the analysis of interview data and the participants may have amplified or improved the behaviors workers adopt to foster mental health at work. Observation of participants' behaviors may have helped to diminish this bias.

Moreover, because researchers and occupational health professionals are also workers is some ways, answers to the questions may have been based on personal experience rather than evidence-based research or professional knowledge. Even if we were attentive to this possibility while conducting the interviews, this bias cannot be eliminated. Indeed, we accept that the boundaries between scientific, professional and experiential knowledge are permeable and that the rich and diversified expertise of participants will have enhanced the results.

7. Conclusion

Focus on approaches to prevention is important because of the growing number of workers affected by work-related mental health problems. The integrated prevention approach is a promising concept. We identified 49 concrete behaviors workers can adopt to foster mental health at work. These behaviors appear to be useful throughout the prevention continuum to operationalize the integrated mental health prevention approach.

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Tables

Table 1. Descriptive characteristics of participants

Participant's number	Age (years)	Gender*	Category of participants and specialty **	Working experience (years)
01	30	F	OHP -occupational therapist	5
02	61	M	OHR - ergonomics	27
03	35	F	OHP - human resources manager	13
04	37	F	OHR – organizational behavior	10
05	50	F	OHP - insurance agent	18
06	43	M	OHR – organizational psychology	18
07	67	M	OHR – Human resources management	43
08	51	F	OHP - human resources manager	21
09	55	F	OHP - human resources manager	15
10	43	F	OHP - human resources manager	20
11	55	F	OHP - insurance agent	7
12	50	F	OHP - occupational therapist	19
13	31	F	OHP - organizational psychologist	7
14	63	M	OHP - organizational psychologist	37
15	43	M	OHP - organizational psychologist	10
16	47	F	OHP - occupational therapist	10
17	33	M	W – financial sector	8
18	33	F	W – sales sector	12
19	33	F	W – healthcare sector	10
20	42	F	W – industrial sector	12
21	40	M	W – healthcare sector	10
22	35	M	W – healthcare sector	12

* F = female; M = male

** OHP = occupational health professional, OHR = occupational health researcher, E = worker

Table 2. Workers' behaviors related to adopting a reflective practice

1. Adopting a reflexive practice	*1.1 Analyzing work situations* 1.1.1 Identifying risks of mental health problems *1.2 Self-assessing* 1.2.1 Analyzing operating processes 1.2.2 Recognizing signs and symptoms of mental health problems 1.2.3 Prioritizing values *1.3 Making decisions* 1.3.1 Establishing priorities 1.3.2 Anticipating choices' consequences 1.3.3 Making changes 1.3.4 Determining one's limits 1.3.4.1 Respecting limits 1.3.4.2 Psychologically detaching 1.3.5 Changing job 1.3.5.1 Changing position 1.3.5.2 Leaving

Table 3. Workers' behaviors related to acting for one's own mental health

2. Acting for one's own mental health	*2.1 Communicating* 2.1.1 Speaking about the emotions experienced at work 2.1.2 Exposing one's limits 2.1.3 Expressing one's needs 2.1.4 Asking for help 2.1.5 Denouncing problematic situations *2.2 Using available resources to overcome difficulties* 2.2.1 Getting information about the prevention of work-related mental health problems 2.2.2 Using personal strategies 2.2.3 Using organizational resources 2.2.4 Using societal resources *2.3 Adopting a healthy lifestyle* 2.3.1 Adopting healthy lifestyle habits 2.3.2 Managing stress 2.3.3 Maintaining the balance between work and personal life *2.4 Investing in work* 2.4.1 Organizing work 2.4.2 Realizing quality work

Table 4. Workers' behaviors related to acting for the mental health of others

3. Acting for the mental health of others	*3.1 Involving in the organization* 3.1.1 Involving in committees 3.1.2 Participating in organizational activities 3.1.3 Talking about mental health 3.1.4 Adopting a positive attitude 3.1.4.1 Raising the positive aspects of situations 3.1.5 Claiming changes 3.1.5.1 Proposing solutions 3.1.5.2 Insisting on correcting a problematic situation *3.2 Working as a team* 3.2.1 Exchanging 3.2.2 Collaborating 3.2.3 Helping each other 3.2.4 Sharing tasks *3.3 Caring about colleagues* 3.3.1 Organizing social activities with colleagues 3.3.2 Being cordial 3.3.3 Resolving conflicts 3.3.4 Being attentive to others 3.3.5 Recognizing the signs and symptoms of others 3.3.6 Listening 3.3.7 Looking after others 3.3.8 Reporting a difficult situation experienced by the other 3.3.9 Offering help 3.3.9.1 Helping complete a task 3.3.9.2 Advising from your own experience 3.3.9.3 Referring 3.3.10 Recognizing 3.3.10.1 Paying attention 3.3.10.2 Encouraging 3.3.10.3 Thanking