EVALUATION OF THE EFFECTIVENESS OF MENTAL HEALTH INTERVENTION ON SELF-COMPASSION AND STIGMATISATION ATTITUDES AMONG LEADERS AND THEIR FOLLOWERS

Šípová, I., Lofajová, D., Máčel, M., Nielsen, K., Innstrand, S.T.

Ivana Šípová / Charles University, Faculty of Arts, Department of Psychology, Celetná 20, Prague 1, The Czech Republic, Email: ivana.sipova@ff.cuni.cz (corresponding author)

Dorota Lofajová / Charles University, Faculty of Arts, Department of Psychology, Celetná 20, Prague 1, The Czech Republic.

Martin Máčel / Charles University, Faculty of Arts, Department of Psychology, Celetná 20, Prague 1, The Czech Republic.

Karina Nielsen / University of Sheffield, Sheffield University Management School, Conduit Rd, Sheffield S10 1FL, United Kingdom. Email: k.m.nielsen@sheffield.ac.uk

Siw Tone Innstrand / Norwegian University of Science and Technology, Department of Psychology, NO-7491 Trondheim, Norway. Email: siw.tone.innstrand@ntnu.no

Abstract

Frequent alterations, unpredictable workloads, and blurred lines between professional and personal life all contribute to adverse effects on mental health. As a result, there is a growing need for managers to be attuned to their employees' emotional well-being and to cultivate the ability to openly, safely, and confidentially address mental health matters. Training in mental health awareness can equip managers with the skills to recognize early signs of common mental health conditions, engage in conversations about mental health, and actively promote well-being to prevent mental health challenges. The study aims to evaluate the effectiveness of mental health intervention on self-compassion and stigmatisation attitudes among leaders and their followers. The present study is a part of a large European research project. A pre-post research design was implemented in two Czech SMEs to investigate the effect of mental health awareness training on leaders and their followers. The research focuses on two dependent variables - self-compassion as a personal resource and stigmatisation as the attitude towards mental health. The moderating role of learning transfer and the opportunity to use the training was taken into account. For the leaders, the results indicate a statistically significant increase in self-compassion and a decrease in stigmatising attitudes toward mental health issues. There is no statistically significant moderating role of training transfer variables. For the followers, a statistically significant change was evident in decreased stigmatising attitudes. The results need to be interpreted in the context of organisational changes that both companies went through during the research project resulting in more stress, workload, and drop-outs.

Implications for the Central European audience: There is a need for knowledge on how to prevent well-being-related problems in a changing world with more remote work and more mental health issues. The present study adds to this need by exploring the effect of mental health awareness training on two organisational levels – leaders and their followers. The practical contribution of this research is to provide specific recommendations on how to stimulate mental health awareness for leaders through training interventions and thus promote employee well-being.

Keywords: mental health; effectiveness evaluation; training; process evaluation

JEL Classification: I31, J24

Introduction

According to WHO (World Health Organization), meaningful work and a supportive work environment could be protective factors for overall well-being (WHO Guidelines on Mental Health at Work, 2022). Additionally, harmful working conditions may contribute to mental health disorders. According to WHO estimates up to 15% of the working-age population experience mental strain (WHO Guidelines on Mental Health at Work, 2022). Globally, this represents an estimated cost of up to \$1.15 trillion per year, based on the assumption that in the absence of appropriate treatment, depressive and anxiety disorders cost 12 billion days of lost productivity per year in the 36 largest countries in the world (Chisholm et al., 2016). This is a powerful argument why mental health should be one of the priorities globally.

Research to promote mental health in the workplace usually focuses on interventions addressing individual employees. The main logic is that by building individual resources, employees can boost their own mental well-being at work (Dimoff et al., 2016). According to Glazer (2011), placing the responsibility for stress management on an individual assumes that the individual has the majority of the psychosocial risks under control. Usually, this is not the case at the workplace.

This study aims to evaluate the effect of Mental Health Awareness Training (MHAT) on leaders as direct participants of the intervention and their followers who did not participate but might benefit from it indirectly. We will examine the change in self-compassion and stigmatisation. Additionally, we will consider the moderating role of the opportunity to use the training in a practice and learning transfer on the leader level.

The relationship with the supervisor is one of the most important relationships in the workplace, affecting the mental well-being of the subordinates (Skakon et al., 2010). Managers who have deep insight into workplace issues and job requirements have the power to modify work conditions (Kelloway et al., 2005). Leaders serve as role models for others by modelling (un)desirable behaviours (Kelloway & Barling, 2010). Lecours et al. (2022) presented examples of behaviour types that can lead to building a culture of mental health in the workplace: having regular consultations with employees, role-modelling, showing appreciation for employees' efforts, involving them in decision-making, allowing them to make mistakes, support in the form of providing resources or referring to them, being approachable, open, listening to needs, and having regular contact with subordinates. If leaders do not adequately communicate or consider employees' mental well-being needs, employees

perceive this as a significant unfulfilled demand (Giusino et al., 2022). However, it is also important to consider the other perspective – as long as managers are able and competent to manage employees' health and mental well-being, they consider it an essential resource (Giusino et al., 2022). Thus, managers can adopt specific behaviours and build competencies that will contribute to improving the mental health of their subordinates. These principles are reflected by Health-oriented leadership theory.

Health-oriented leadership is defined as behaviours, values, and attitudes focused on health in a workplace (Franke et al., 2014). Health-oriented leaders should be aware of health issues in the workplace, consider health in the context of other relevant work aspects, and manifest specific health-oriented behaviours (e.g., communicating about health with subordinates or designing health-enhancing work processes; Kaluza et al., 2021).

One of the ways of developing health-oriented leadership might be focused on providing more education for managers in this area. This is also one of the recommendations of the review examining the impacts of COVID-19 on mental health (Aknin et al., 2022) and one of the WHO's suggestions to protect occupational health (2022).

Mental Health Awareness Training

One intervention that can meet these objectives is Mental Health Awareness Training (MHAT, Dimoff et al., 2016). Its effectiveness has been previously studied. Managers who have participated in MHAT felt more confident when discussing mental health issues with employees than those who didn't take part in the training. Moreover, in workplaces where supervisors have received such training, there has been a reduction in psychological distress among employees (Harvey et al., 2014; Tsutsumi, 2011). The aim of such training is to recognize signs and symptoms of mental disorders, broach topics related to mental health, and prevent mental well-being issues (Dimoff et al., 2016).

Weston et al. (2019) found that managers of a UK organisation who attended the MHAT reported higher awareness of mental (un)health in the workplace and higher self-confidence in addressing mental health topics among their employees. Milligan-Saville et al. (2017) administered the 4-hour MHAT to managers, which was shown to have a significant effect on managers' confidence and behaviour in addressing mental health issues among their employees over a 6-month follow-up period. They also found a significant effect of the intervention on the absence of sickness. In addition, they estimated that there would be a significant return on investment. In a study by Dimoff et al. (2016), Canadian managers attended a 3-hour MHAT training. When compared to a control group, the trained managers showed significant improvements in their knowledge, stigmatizing attitudes, self-efficacy, and support intentions related to mental health in the workplace (Dimoff et al., 2016. The impact on managers' behaviours following the training was also examined qualitatively. Employees whose managers participated in the training reported that their managers were more engaged in health promotion activities (e.g., "provided information about mental health resources"), showed more individual attention (e.g., "recognized when I was misbehaving"), and provided more social support (e.g., "took the time to talk to me when I wasn't feeling well"). Employees whose managers participated in the training also reported seeking support from available resources at significantly higher rates than employees whose managers did not participate in the training (Dimoff & Kelloway, 2019).

Self-compassion

According to the Job Demand-resources theory (JD-R; Bakker & Demerouti, 2017), selfcompassion can be regarded as a personal resource ensuing in health a wellbeing (Schaufeli & Taris, 2003). The JDR suggest two parallel processes to health and well-being, a health impairment process and a motivational process. Self-compassion is considered one of these resources given that it may affect the character of stressors to which individuals are exposed via adopting protective self-care behaviour (Finlay-Jones, 2017). Moreover, the protective tendency of self-compassion comes from evaluating exasperating situations as less stressful, especially when individuals are able to view them in the light of shared human experience (Neff & Dahm, 2015). Self-compassion is defined as "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering, and to heal oneself with kindness" (Neff & Dahm, 2015). After employees experienced suffering, compassionate treatment led to a greater connection and engagement with work (Lilius et al., 2008). The relevancy within the organisational context is supported also by the effect of self-compassion on promoting work performance and reducing turnover intention (Reizer, 2019). Despite the literature conceptualising self-compassion as a personal trait, a meta-analysis by Ferrari et al. (2019) argued that it can be developed through training. Intervention such as MHAT is designed to educate the participants in perceiving mental health as a continuum, which leads to a kinder perception of mental illnesses (Schomerus & Angermeyer, 2021). The training itself also supports communication on mental illnesses thus building an open and compassionate culture (West & Chowla, 2017).

The stigmatisation of mental illnesses

The stigma of mental illnesses can be defined as "social injustice many people labelled mentally ill experience that can be equally challenging for achieving one's aspirations" (Corrigan & Bink, 2016, p. 230). Stigma can be linked to the health impairment process in the JD-R model, considered the leading cause of inadequate treatment-seeking and underutilisation of mental health resources (Clement et al., 2015). Public stigma is considered the main obstacle in mental health care (Winkler et al., 2017). At the same time, different types of mental illness are associated with different negative biases. Post-traumatic stress disorder is viewed differently than depression (Smith et al., 2019). Thus, stigmatization is a more severe issue for people with mental illness than the symptoms themselves (Thornicroft et al., 2007). Stigmatisation is related to self-stigmatization that results from the internalization of public prejudice. This further leads to lowered self-esteem and self-deprecation (i.e., feeling that there is no reason for trying, for example, to get a job; (Corrigan & Bink, 2016). Rüsch et al. (2005) claim that stigma is a result of "the misunderstandings of society about the various mental disorders" (p. 224). This statement points to the importance of communication in reducing it's the power of stigmatisation.

A high level of stigmatisation is one of the overreaching factors specific to the Czech population. A recent study by (Winkler et al., 2021) drew attention to the significantly higher level of stigmatisation in The Czech Republic compared to the United Kingdom. For example, in England, 4% of the population would likely be bothered or definitely bothered to be friends with a mentally ill person. In the Czech Republic, it was 26% of the population. This may lead

to a deepening of the treatment gap, which refers to the percentage of people with a mental illness who do not seek professional help (Kohn et al., 2004). The Czech Republic has a much higher treatment gap for affective disorders (61%), anxiety disorders (69%) and alcohol abuse (93%) compared to the global data and WHO regional estimates for Europe (Kagstrom et al., 2019). Clement et al. (2015) also draw attention to the reduced motivation to seek help while experiencing stigmatising attitudes.

A meta-analysis conducted by Szeto et al. (2019) evaluated the effectiveness of the training Road to Mental Readiness based on similar principles as MHAT and found evidence that such training decreased "stigmatizing attitudes towards those with mental health illnesses" (p. 26) and made participants feel "more prepared to handle stressful and traumatic events in their workplace" (p. 26).

To effectively eliminate the stigma, open communication needs to be set up. Stigmatization is mainly coming from inadequate knowledge of mental illnesses and the resulting attitudes (Gaebel et al., 2006). One of the MHAT objectives is a destigmatisation of mental illnesses through education about mental illnesses and a realist view of life with mental illness. The training also aims to make managers more competent in having conversations about mental health and possible interventions in situations of compromised mental health.

Evaluating the effectiveness of training requires the evaluation of its outputs, as well as the implementation factors that may influence the impact (Moore et al., 2014). Nielsen et al. (2023) argued that training transfer may improve the quality of mental health interventions at the workplace. The other crucial contextual factor that contributes to training effectiveness is the opportunity to integrate learning into practice (Nielsen et al., 2023).

Research hypotheses

Based on the assumption developed above, we set up the following hypotheses:

- H_{1.1}: Mental Health Awareness Training increases self-compassion among leaders.
- H_{1.2}: The relationship between MHAT and self-compassion is moderated by the opportunity to use the training in practice.
- H_{1.3}: The relationship between MHAT and self-compassion is moderated by learning transfer.
- H_{2.1.}: Mental Health Awareness Training decreases stigmatization of mental illnesses among leaders.
- *H*_{2,2,:} The relationship between MHAT and stigmatisation is moderated by the opportunity to use the training in practice.
- H_{2.3}: The relationship between MHAT and stigmatisation is moderated by learning transfer.
- H_{3.1}: Mental Health Awareness Training increases self-compassion among followers.
- H 3.2: Mental Health Awareness Training decreases stigmatising workplace attitudes among followers.

1 Methods

1.1 Study design

The study is a part of a large European research project that aims to create, apply, and investigate the effect of multilevel interventions to promote occupational health (De Angelis et al., 2020). The present pre-post study was conducted in two Czech SMEs. The first organisation is a global retail company, which designs, manufactures and furnishes branded stores. The second is an international company that develops products to help other companies maintain control of their mobile data and keep their users safe. It has offices in San Francisco, London and Brno. The company has 106 employees in the Czech Republic and 205 worldwide. In each organization, the research project included measurement pre and post (1 year after pre-). The intervention part consisted of several mental health interventions (team and individual coaching, mindfulness, mental health awareness training, etc.). Based on need analyses (i.e. focus group interviews with employees, face-to-face interviews with middle and senior management, and a context measure), presented and agreed upon during a stakeholder meeting (with representatives from regular employees, HR, management, and project leaders), MHAT was chosen as the most suitable intervention, given that the results indicated a lack of competency in talking about mental health issues openly, safely and confidentially (Innstrand et al., 2020).

The intervention was offered to all managers and leader aspirants. Participation in the training was voluntary but highly recommended. The call to participate was sent out via e-mail from an HR representative. The registration for the training was done online.

1.2 Participants

The sample consisted of 54 pair-matched responses from the pre and post-survey (Organisation 1; n=18, Organisation 2; n=36). The individual responses were paired through self-generated IDs consisting of the last two letters from the respondent's mother's name, the number of letters in their mother's name, and the third letter of the respondent's place and day of birth. On both levels, we were able to pair the data from the T1 and T2 measurements.

Leaders

In Organization 1, 26 people were recruited for the intervention. In Organization 2, 32 managers attended the training. In total, we were able to pair the responses from 20 training participants.

Followers

In total, we collected the data from 34 followers. Due to a high level of anonymisation, we are not able to match followers with their leaders.

The sociodemographic of the final sample involved in the analysis is shown in Table 1. For partial analyses; the number of respondents is lower due to the voluntary participation and high degree of anonymisation, which did not allow researchers to remind the participants individually.

Table 1 | Sociodemographic of participants

	AII	Followers	Leaders
Gender			
Male	39	22	17
Female	15	12	3
Age range			
Up to 25 years old	3	3	0
25-34 years old	39	22	17
35-44 years old	10	8	2
45-54 years old	1	0	1
55-64 years old	1	1	0
Education			
Upper secondary	1	0	1
Post-secondary non-tertiary	8	6	2
Short-cycle tertiary	3	3	0
University- bachelor	9	4	5
University-master	33	21	12

Source: Own processing

1.3 Measures

The stigmatisation of mental illnesses

Stigma was measured with the Opening Minds Scale for Workplace Attitudes (OMS-WA; Szeto et al., 2019; Szeto et al., 2013) and measures (1) Attitudes about mental illness in the workplace, and (2) Understanding and intentions regarding mental health in the workplace. Attitudes about mental illness were measured by 5 items like "You can't rely on an employee with a mental illness." Understanding and intentions regarding mental health were measured by 4 items like "I talk about mental health issues as freely as physical health issues." Respondents rated all statements on a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5). The English-to-Czech translation was performed by the research team. The reliability was satisfactory with McDonald's omega ranging from $\omega = .74$ to .87.

Self-compassion

Self-compassion was measured by the Self-compassion scale (S-CS, Neff, 2010) shortened to 3 items ("When I look back at my job experiences of the past month, I now treat myself kindly with respect of my job experiences."). The items were rated on a 7-point Likert scale from "totally disagree" (1) to "totally agree" (7). The reliability of the Czech version ranging from ω = .78 to .85 is considered satisfactory.

Training transfer variables

Two training transfer variables were included. The opportunity to use the training outcomes in practice was measured by 3 items ("In my everyday work, I often use the knowledge I gained in the training"). Learning transfer was also measured by 3 items ("I have been given the tasks necessary to apply the skills and knowledge I learned on the training"). Both questionnaires used a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5). The reliability of these scales ranging from $\omega = .9$ to .92 is considered satisfactory.

1.4 Intervention

MHAT is designed to equip managers with the skills to promote well-being and reduce stigma in the workplace. The training consisted of four 3.5-hour online sessions with a month break between each of them. It was led by two trainers from the research team. There were two waves of training for two groups in both organisations to ensure the training's interactivity. The aim of the training was (a) to introduce participants to the topic of mental health, (b) to increase mindfulness of their own mental health and those around them, (c) to learn how to recognise the symptoms of mental health problems, (d) to introduce prevention and first aid techniques, and finally (e) to inspire participants in how to talk to people about mental health-related topics.

The training was based on key mental health theories transferred into practice. The main idea of the training was to view mental health as a continuum rather than the dichotomous concept of two extremes - being healthy or being ill. Thinking of mental health as a continuum leads to a more positive perception of mental illness (Schomerus & Angermeyer, 2021). Participants were also given information about selected mental illnesses and their symptoms that managers may encounter in both work and everyday life. This was followed with information on where and to whom to turn in case of problems. Much attention was also paid to the topic of destigmatisation of mental health, with the content including the most up-todate research and data, preferably conducted in the Czech environment (Winkler et al., 2021). Furthermore, the training focused on the managerial role in the mental health care of employees. The final part of the training was dedicated to the principles of opening conversations regarding mental health issues with subordinates. The training also included an analysis of situations from practice. The principles of the training were inspired by the Canadian training The Road to Mental Readiness (Szeto et al., 2019) and the section on communicating with a worker who might be experiencing mental health problems (Milligan-Saville et al., 2017). Training design supports transfer i.a. when training tasks correspond to tasks in practice (Goldstein & Musicante, 1986) or when the training is composed of behavioural modeling elements (Gist et al., 1989). These elements were taken into account when designing the training.

1.5 Procedure

Following the need analysis (focus group interview with leaders and employees), all employees in the organisation were asked to fill in the pre-intervention mental health baseline questionnaire. The questionnaire included both distal measures (i.e.) and proximal measures like OMS-WA and S-CS. One year after the pre-intervention questionnaire, the whole company was asked to fill in the post-intervention questionnaire with the same questions. Post-test questionnaire for leaders included training transfer variables. The intervention and data collection process is visualised in Table 2.

Table 2 | Time frame of the data collection and intervention in:

Organisation 1

	2021						2022										
	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Leaders	Pre-	test	1 st wave of MHAT				2 nd wave of MHAT							Post-	-test		
Followers																	

Organisation 2

	20	21				2022							2023				
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Leaders	Pre-	test	1 st wave of MHAT									2 nd wave of MHAT Post		-test			
Followers	1 10 1001																

Note. Pre- and post- questionnaires were administered to all employees and included OMS-WA and S-CS. The post-questionnaire for the leader level also included training transfer variables.

Source: Own processing

1.6 Statistical analysis

A repeated measures ANOVA was conducted in order to investigate the effect of the MHAT intervention on self-compassion and stigmatisation on both direct (leaders) and indirect (subordinates) beneficiaries of the intervention. Learning transfer and opportunity to use the training in practice are process evaluation variables. They enter the analysis as potential moderation explaining the relationship between MHAT and self-compassion resp. stigmatisation of mental illnesses.

The data were prepared in R (R Core Team, 2021) and analysed in Jamovi (The Jamovi project, 2022).

2 Results

Despite this, using the power analysis tool G^*Power , (Faul et al., 2007, 2009) we calculated that this sample size was able to correctly identify moderate to bigger effects with appropriate sensitivity. These effects correspond to effect size f = 0.35 or $\eta^2 p = 0.11$.

Correlations

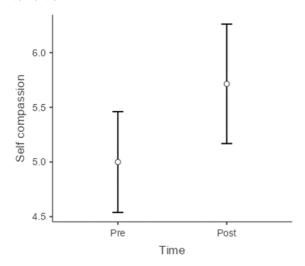
In the pre-test, there was no statistically significant correlation between stigmatisation and self-compassion r(54) = -.16, p = .253. In the post-test, the opportunity to use the training and learning transfer positively correlated r(14) = .77, p = .001 and self-compassion and stigmatization correlated r(54) = -.4, p = .003.

2.1 The effectiveness of MHAT among leaders

Self-compassion. On the leader level, the responses from the pre-test (M=5, SE=.21) and post-test (M=5.71, SE=.25) S-CS questionnaires were compared, taking into account the

possible moderating role of the opportunity to use the training (M= 3.99, SE= .766) and learning transfer (M= 3.61, SE= .697) measured in the post-test assessment. The comparison is visualised in Figure 1. In total, we were able to pair the data from 14 participants.

Figure 1 | Means of self-compassion of mental illness in the leader group before and after the intervention.



Source: Own processing

Among the leaders group, there was a significant change in self-compassion F(1, 11) = 10.410, p = .008, $\eta^2 p = .486$.

As shown in Table 3, the results neither indicated a statistically significant moderating role of the opportunity to use the training in practice on self-compassion F(1, 11) = .406, p = .537, $\eta^2 p = .036$ nor a moderating role of learning transfer F(1, 11) < .001, p = .979, $\eta^2 p = 0$.

Table 3 | ANOVA Within-Subject Effects for Self-compassion of Leaders

	Sum of Squares	df	Mean Square	F	P	$\eta^{_p}$
Time	3.571	1	3.571	10.41	.008	.486
Time * Opportunity	.139	1	.139	.406	.537	.036
Time * Transfer	.0	1	0	0	.979	0
Residual	3.77	11	0.343			

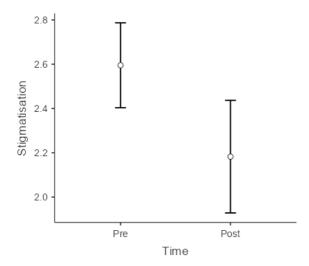
Note. Type 2 Sums of Squares

Source: Own processing

The stigmatisation of mental health illnesses. The results showed a statistically significant difference between the stigmatisation and opening minds workplace attitudes in the pre-test (M=2.60, SE=0.09) and post-test (M=2.18, SE=0.12), taking into account the same values of training transfer measures. The comparison is visualised in Figure 2. According to Table

4, the analysis showed a statistically significant effect of MHAT on reducing stigmatising attitudes F(1, 11) = 30.975, p < .001, $\eta^2 p = .738$. The data neither showed a statistically significant moderating effect of the learning transfer F(1, 11) = 3.148, p = .104, $\eta^2 p = .222$, nor a moderating effect of the opportunity to use the training in practice F(1, 11) = .669, p = .431, $\eta^2 p = .057$.

Figure 2 | Means of stigmatisation of mental illness in the leader group before and after the MHAT intervention.



Source: Own processing

Table 4 | ANOVA Within-Subject Effects for Stigmatisation of Leaders

	Sum of Squares	df	Mean Square	F	P	η^{2}_{p}
Time	1.192	1	1.192	3.975	< .001	.738
Time	.026	1	.026	.669	.431	.057
Time ∦ Transfer	.121	1	.121	3.148	.104	.222
Residual	.423	11	.039			

Note. SS: Type 2 Sums of Squares, MS: Mean Square

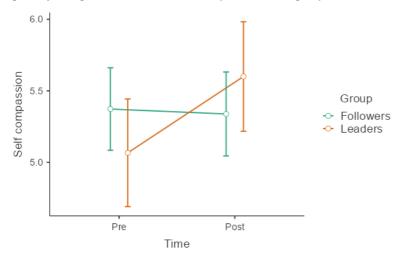
Source: Own processing

2.2 The effectiveness of MHAT among followers

Self-compassion. In the group of followers, the self-compassion stays very similar (M_{pre} = 5.37, SE_{pre} = .14 and M_{post} = 5.34, SE_{post} = .15). The change is visualised in Figure 3.

As Table 5 shows, in the group of leaders, there is a statistically significant increase in self-compassion (M_{pre} = 5.07, SE_{pre} = .19 and M_{post} = 5.60, SE_{post} = .19), F(1, 52) = 4.59, p = .037, $\eta^2 p$ = .081.

Figure 3 | Change in the means of self-compassion in the group of leaders and their followers.



Source: Own processing

Table 5 | ANOVA Within-Subject Effects for Self-compassion of Followers

	Sum of Squares	df	Mean Square	F	p	η²p
Time	.836	1	.836	1.89	.175	.035
Time ∦ Group	2.029	1	2.029	4.59	.037	.081
Residual	22.983	52	.442			

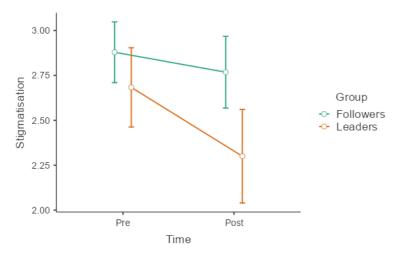
Note. Type 2 Sums of Squares

Source: Own processing

Stigmatisation of mental illnesses

In the group of followers, the stigmatisation has slightly decreased (M_{pre} = 2.88, SE_{pre} = .08 and M_{post} = 2.77, SE_{post} = .10). The change in the group of leaders is apparent (M_{pre} = 2.68, SE_{pre} = .11 and M_{post} = 2.30, SE_{post} = .13). Both changes are visualised in Figure 4. The results in Table 6 indicate that the stigmatisation level has decreased among both leaders and their followers (F(1, 52) = 10.09, p = .003, $\eta^2 p$ = .162) but the difference between the group of leaders and followers is not statistically significant (F(1, 52) = 3.88, p = .054, $\eta^2 p$ = .069).

Figure 4 | Change in the means of stigmatisation of mental illness in the group of leaders and their followers.



Source: Own processing

Table 6 | ANOVA Within Subjects Effects for Stigmatisation of subordinates

	Sum of Squares	df	Mean Square	F	p	η²p
Time	1.213	1	1.213	1.09	.003	.162
Time ∦ Group	.467	1	.467	3.88	.054	.069
Residual	6.253	52	.12			

Note. Type 2 Sums of Squares

Source: Own processing

3 Discussion

The present study aimed to evaluate the effect of the managerial intervention MHAT on leaders and their followers. On the leader level, the training led to increased self-compassion regardless of learning transfer or opportunity to use the training in practice. Therefore, we can support hypothesis $H_{1.1}$ but there is not enough evidence to support $H_{1.2}$ and $H_{1.3}$. As self-compassion has been shown to be one of the personal resources in the JD-R model (Finlay-Jones, 2017), MHAT helps build personal resources. At the same time, there has been a reduction in stigmatising attitudes towards people with mental illnesses among the leaders. Again, learning transfer and the opportunity to use the training did not play a role in statistically significant moderators. This result gives us the argument to support $H_{2.1}$ but no evidence to support $H_{2.2}$ and $H_{2.3}$.

These findings are consistent with the study by Szeto et al. (2019), in which the authors did not specifically examine the MHAT training, but instead focused on The Road to Mental

Readiness training, which inspired our intervention. Road to Mental Readiness significantly reduced the stigma attitudes of participants. Szeto et al. (2019) are also consistent with a study by (Dimoff et al., 2016) in which MHAT training significantly reduced stigmatising attitudes toward people with mental health problems among its participants.

The present study expands these findings by suggesting that there is an additional improvement among managers' employees. The results of the study support the hypothesis $H_{3.2}$ but there is no support for $H_{3.1}$.

These findings imply that the employees might have benefited from the training of their leaders indirectly, suggesting how important leaders' attitudes, values and behaviours are for the employees' mental health (Kaluza et al., 2021) and show that this can spillover to their own attitudes, values and behaviours. A meta-analysis conducted by (Gayed et al., 2019) supports these findings, as they have found that managers who have undergone this kind of training showed greater mental health knowledge, less stigmatising attitudes and were more supportive towards their subordinates in terms of mental health issues compared to the non-intervention group.

Dimoff and Kelloway (2019) used a similar research design using a multilevel perspective. Their results showed that leaders who participated in mental health training were, among other things, more supportive of mental health issues among their followers. Followers whose superiors took this training made greater use of available resources to support mental health.

Given the nature of our data, we can only decide on moderation analysis. This may also be the reason why the role of training transfer variables did not come out as statistically significant. Usually, authors consider training transfer to be rather a mediator (Baldwin & Ford, 1988). According to Nielsen et al. (2023), the opportunity to integrate the training into practice is related to work demands and autonomy. Similarly, the training transfer requires the support of individuals in implementing newly acquired skills (Baldwin & Ford, 1988). In a period of organizational changes, these conditions may be compromised. Therefore, the moderating role of training transfer variables in this study was not statistically significant. The reason may also lie in the nature of dependent variables.

Stigma operates as a result of the unacknowledged process (Retzinger, 1989). This may cause people not to consciously adopt anti-stigma attitudes. Given that the OMS-WA items target everyday use in practice, this may be a potential reason why training transfer does not moderate the relationship between MHAT and stigmatising attitudes. Current research does not provide potential answers regarding the role of training transfer in relation to self-compassion. Again, a potential explanation may lie in the irrelevance of training transfer in self-compassion given that it is not a competency that managers can use on a daily basis.

3.1 Strengths and limitations

The limitations of this study are related to the organisational changes that both organisations went through during the project. During this period, they were undergoing a large restructuring and rebranding. This may have been one of the reasons for the high dropout rate, which allowed only about a quarter of the collected pre- and post-test responses to be matched in each organisation. This is also one of the reasons why we do not control for organisation due to the low number of participants.

Other impacts of organisational changes are related to stress. Previous studies have shown that organisational changes represent a major psychological demand for employees (Fløvik et al., 2019). This raises the question of the role of protective factors in organisational change. On one hand, self-compassion plays a role as a protective factor, as it weakens the relationship between stress and its negative outcomes (Stutts et al., 2018). On the other hand, stress weakens personal resources (Galanakis et al., 2016), which include self-compassion.

One of the unforeseen characteristics of the intervention was its online format due to the pandemic restrictions. Previous research indicates that there is no difference in online and in-person training effectiveness. The same 4-hour format with nearly identical content was examined by (Gayed et al., 2019) and focused on comparing a virtual and face-to-face version of the training. Managers' confidence improved from the baseline for both training formats. A greater change was noted for face-to-face versus online training, but at the same time, there was a sustained improvement over time for both versions.

The research was conducted in a country that is heavily burdened culturally and historically by the stigma of mental illness. A legislative reform that aims to improve the quality of life of people with mental diseases might be very helpful in the destigmatisation of people with mental disorders (Winkler et al., 2021), but further initiatives must be taken to at least close the gap with other Western countries. As it was previously mentioned, the Czech population is discriminating in terms of mental illnesses and MHAT brings valuable information on symptomatology together with a non-judgmental approach to mental health discussions in organisations. This might help open up the topic in organisations, contributing to the prevention and early detection of mental health issues.

Conclusion

Mental health remains the most recent topic in the post-pandemic world (da Silva et al., 2020). Besides this, the other challenges are brought on by the war in Ukraine and massive economic inflation. This is one of the main reasons for preventing well-being-related problems. The present study adds to this need by exploring the effect of mental health awareness training. The practical contribution of this research is to provide specific recommendations on creating mental health awareness for leaders through training interventions and thus to promote employee wellbeing. The present intervention study provides a relatively easy and effective way to reduce stigmatising attitudes towards people with mental illness. Given the relatively high representation among the population (almost a 33% prevalence in the Czech Republic; (Winkler et al., 2021), this may be the way to create a safe environment in which people feel comfortable speaking about their mental health. This represents the first step towards preventing mental illness.

Future research

Future studies should have a longer follow-up as it may bring other interesting findings regarding the sustainability of the intervention effect over time.

Another important outcome, as well as a strong argument for stakeholders, could be an economic analysis providing financial data on weakened mental health in organisations and the financial costs and revenues of potential interventions.

Acknowledgement

The authors are very grateful to all research participants.

Funding: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847386.

Conflict of interest: The authors hereby declare that this article was not submitted or published elsewhere. Authors do not have any conflict of interest.

References

- Aknin, L. B., De Neve, J. E., Dunn, E. W., Fancourt, D. E., Goldberg, E., Helliwell, J. F., Jones, S. P., Karam, E., Layard, R., Lyubomirsky, S., Rzepa, A., Saxena, S., Thornton, E. M., VanderWeele, T. J., Whillans, A. V., Zaki, J., Karadag, O., & Ben Amor, Y. (2022). Mental Health During the First Year of the COVID-19 Pandemic: A Review and Recommendations for Moving Forward. Perspectives on Psychological Science, 17(4), 915–936. https://doi.org/10.1177/17456916211029964.
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. https://doi.org/10.1037/ocp0000056.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. Personnel Psychology, 41, 63–105. https://doi.org/10.1111/j.1744-6570.1988.tb00632.x.
- Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: A global return on investment analysis. *The Lancet Psychiatry*, *3*(5), 415–424. https://doi.org/10.1016/S2215-0366(16)30024-4.
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(1), 11–27. https://doi.org/10.1017/S0033291714000129.
- Corrigan, P. W., & Bink, A. B. (2016). The Stigma of Mental Illness. In *Encyclopedia of Mental Health:* Second Edition (pp. 230–234). Elsevier Inc. https://doi.org/10.1016/B978-0-12-397045-9.00170-1
- da Silva, A. G., Miranda, D. M., Diaz, A. P., Teles, A. L. S., Malloy-Diniz, L. F., Palha, A. P., & Faillace, L. A. (2020). Mental health: Why it still matters in the midst of a pandemic. *Brazilian Journal of Psychiatry*, 42(3), 229–231. https://doi.org/10.1590/1516-4446-2020-0009.
- De Angelis, M., Giusino, D., Nielsen, K., Aboagye, E., Christensen, M., Innstrand, S. T., Mazzetti, G., van den Heuvel, M., Sijbom, R. B. L., Pelzer, V., Chiesa, R., & Pietrantoni, L. (2020). H-work project: Multilevel interventions to promote mental health in smes and public workplaces.

 International Journal of Environmental Research and Public Health, 17(21), 1–23. https://doi.org/10.3390/ijerph17218035.
- Dimoff, J. K., Kelloway, E. K., & Burnstein, M. D. (2016). Mental health awareness training (MHAT): The development and evaluation of an intervention for workplace leaders. *International Journal of Stress Management*, 23(2), 167–189. https://doi.org/10.1037/a0039479

- Dimoff, J. K., & Kelloway, E. K. (2019). With a little help from my boss: The impact of workplace mental health training on leader behaviors and employee resource utilization. *Journal of Occupational Health Psychology*, 24(1), 4–19. https://doi.org/10.1037/ocp0000126.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. https://doi.org/10.3758/BF03193146.
- Ferrari, M., Hunt, C., Harrysunker, A., Abbott, M. J., Beath, A. P., & Einstein, D. A. (2019). Self-Compassion Interventions and Psychosocial Outcomes: a Meta-Analysis of RCTs. *Mindfulness*, 10(8), 1455–1473. https://doi.org/10.1007/s12671-019-01134-6.
- Finlay-Jones, A. L. (2017). The relevance of self-compassion as an intervention target in mood and anxiety disorders: A narrative review based on an emotion regulation framework. *Clinical Psychologist*, *21*(2), 90–103. https://doi.org/10.1111/cp.12131.
- Fløvik, L., Knardahl, S., & Christensen, J. O. (2019). Organizational change and employee mental health: A prospective multilevel study of the associations between organizational changes and clinically relevant mental distress. *Scandinavian Journal of Work, Environment and Health*, 45(2), 134–145. https://doi.org/10.5271/sjweh.3777.
- Franke, F., Felfe, J., & Pundt, A. (2014). The impact of health-oriented leadership on follower health: Development and test of a new instrument measuring health-promoting leadership. *Zeitschrift Fur Personalforschung*, 28(1–2), 139–161. https://doi.org/10.1688/ZfP-2014-01-Franke.
- Gaebel, W., Zäske, H., & Baumann, A. E. (2006). The relationship between mental illness severity and stigma. Acta Psychiatrica Scandinavica, 113(s429), 41–45. https://doi.org/10.1111/j.1600-0447.2005.00716.x.
- Galanakis, M. J., Palaiologou, A., Patsi, G., Velegraki, I.-M., & Darviri, C. (2016). A Literature Review on the Connection between Stress and Self-Esteem. *Psychology*, 7(5), 687–694. https://doi.org/10.4236/psych.2016.75071.
- Gayed, A., Tan, L., LaMontagne, A. D., Milner, A., Deady, M., Milligan-Saville, J. S., Madan, I., Calvo, R. A., Christensen, H., Mykletun, A., Glozier, N., & Harvey, S. B. (2019). A comparison of face-to-face and online training in improving managers' confidence to support the mental health of workers. *Internet Interventions*, 18. https://doi.org/10.1016/j.invent.2019.100258.
- Gist, M. E., Schwoerer, C., & Rosen, B. (1989). Effects of Alternative Training Methods on Self-Efficacy and Performance in Computer Software Training. *Journal of Applied Psychology*, 74(6), 884-891. https://doi.org/10.1037/0021-9010.74.6.884.
- Giusino, D., De Angelis, M., Mazzetti, G., Faiulo, I. R., Innstrand, S. T., Christensen, M., & Nielsen, K. (2022). Mentally Healthy Healthcare: Main Findings and Lessons Learned From a Needs Assessment Exercise at Multiple Workplace Levels. In C. Bowers, D. Beidel, M. Marks, K. Horan, & J. Cannon-Bowers (Eds.), Mental Health and Wellness in Healthcare Workers: Identifying Risks, Prevention, and Treatment (pp. 143-171). IGI Global. https://doi.org/10.4018/978-1-7998-8813-0.ch008.
- Glazer, S. (2011). A new vision for the journal [Editorial]. *International Journal of Stress Management*, 18(1), 1–4. https://doi.org/10.1037/a0022307.

- Goldstein, I. L., & Musicante, G. R. (1986). The applicability of a training transfer model to issues concerning rater training. In E. A. Locke (Ed.), *Generalizing from laboratory to field settings* (pp. 83–98). New Lexington Press.
- Harvey, S. B., Joyce, M. S., Tan, L., Johnson, A., Nguyen, H., Modini, M. M., & Groth, M. (2014). Developing a mentally healthy workplace: A review of the literature: A report for the National Mental Health Commission and the Mentally Healthy Workplace Alliance. https://www.mentalhealthcommission.gov.au.
- Innstrand, S. T., Christensen, M., Grødal, K., & Vedlong, H. (2020). Needs analyses report including action plan for implementation: Group 1.
- Kagstrom, A., Alexova, A., Tuskova, E., Csajbók, Z., Schomerus, G., Formanek, T., Mladá, K., Winkler, P., & Cermakova, P. (2019). The treatment gap for mental disorders and associated factors in the Czech Republic. *European Psychiatry*, *59*, 37–43. https://doi.org/10.1016/j.eurpsy.2019.04.003.
- Kaluza, A. J., Weber, F., van Dick, R., & Junker, N. M. (2021). When and how health-oriented leadership relates to employee well-being—The role of expectations, self-care, and LMX. *Journal of Applied Social Psychology*, 51(4), 404–424. https://doi.org/10.1111/jasp.12744
- Kelloway, E. K., & Barling, J. (2010). Leadership development as an intervention in occupational health psychology. *Work & Stress*, 24(3), 260–279. https://doi.org/10.1080/02678373.2010.518441.
- Kelloway, E., Sivanathan, N., Francis, L., & Barling, J. (2005). Poor Leadership. Handbook Of Work Stress, 89-112. https://doi.org/10.4135/9781412975995.n5
- Kohn, R., Saxena, S., Levav, I., & Saraceno, B. (2004). The treatment gap in mental health care. In *Bulletin of the World Health Organization*, *82*(11), 858-866.
- Lecours, A., St-Hilaire, F., & Daneau, P. (2022). Fostering mental health at work: the butterfly effect of management behaviors. *International Journal of Human Resource Management*, 33(13), 2744– 2766. https://doi.org/10.1080/09585192.2021.1886151.
- Lilius, J. M., Worline, M. C., Maitlis, S., Kanov, J., Dutton, J. E., & Frost, P. (2008). The contours and consequences of compassion at work. *Journal of Organizational Behavior*, 29(2), 193–218. https://doi.org/10.1002/job.508.
- Milligan-Saville, J. S., Tan, L., Gayed, A., Barnes, C., Madan, I., Dobson, M., Bryant, R. A., Christensen, H., Mykletun, A., & Harvey, S. B. (2017). Workplace mental health training for managers and its effect on sick leave in employees: a cluster randomised controlled trial. *The Lancet Psychiatry*, 4(11), 850–858. https://doi.org/10.1016/S2215-0366(17)30372-3.
- Moore, G., Audrey, S., Barker, M., Bond, L., Bonell, C., Cooper, C., Hardeman, W., Moore, L., O'Cathain, A., Tinati, T., Wight, D., & Baird, J. (2014). Process evaluation in complex public health intervention studies: The need for guidance. *Journal of Epidemiology and Community Health*, 68(2), 101–102. https://doi.org/10.1136/jech-2013-202869.
- Neff, K. D. (2010). Self-Compassion: An Alternative Conceptualization of a HealthyAttitudeToward Oneself. Self And Identity, 2(2), 85-101. https://doi.org/https://doi.org/10.1080/15298860309032
- Neff, K. D., & Dahm, K. A. (2015). Self-Compassion: What It Is, What It Does, and How It Relates to Mindfulness. Handbook of Mindfulness and Self-Regulation, 121–137. https://doi.org/10.1007/978-1-4939-2263-5_10
- Nielsen, K., De Angelis, M., Innstrand, S. T., & Mazzetti, G. (2023). Quantitative process measures in interventions to improve employees' mental health: A systematic literature review and the IPEF framework. Work and Stress, 37(1), 1–26. https://doi.org/10.1080/02678373.2022.2080775.

- Reizer, A. (2019). Bringing self-kindness into the workplace: Exploring the mediating role of self-compassion in the associations between attachment and organizational outcomes. Frontiers in Psychology, 10, 1148. https://doi.org/10.3389/fpsyg.2019.01148.
- Retzinger, S. M. (1989). A Theory of Mental Illness: Integrating Social and Emotional Aspects. *Psychiatry*, *52*(3), 325–335. https://doi.org/10.1080/00332747.1989.11024454.
- Rüsch, N., Angermeyer, M. C., & Corrigan, P.W. (2005). Das Stigma psychischer Erkrankung: Konzepte, Formen und Folgen. Psychiatrische Praxis, 32(5), 221–232. https://doi.org/10.1055/s-2004-834566.
- Schaufeli, W. B., & Taris, T. W. (2013). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. *Bridging Occupational, Organizational And Public Health*, 1(1), 43-68. https://doi.org/https://doi.org/10.1007/978-94-007-5640-3_4
- Schomerus, G., & Angermeyer, M. C. (2021). Blind spots in stigma research? Broadening our perspective on mental illness stigma by exploring "what matters most" in modern Western societies. *Epidemiology and Psychiatric Sciences*, 30, e26. https://doi.org/10.1017/S2045796021000111.
- Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. Work and Stress, 24(2), 107–139. https://doi.org/10.1080/02678373.2010.495262.
- Smith, R. A., Zhu, X., & Fink, E. L. (2019). Understanding the Effects of Stigma Messages: Danger Appraisal and Message Judgments. *Health Communication*, 34(4), 424–436. https://doi.org/10.1080/10410236.2017.1405487.
- Stutts, L. A., Leary, M. R., Zeveney, A. S., & Hufnagle, A. S. (2018). A longitudinal analysis of the relationship between self-compassion and the psychological effects of perceived stress. *Self and Identity*, 17(6), 609–626. https://doi.org/10.1080/15298868.2017.1422537.
- Szeto, A. C. H., Luong, D., & Dobson, K. S. (2013). Does labeling matter? An examination of attitudes and perceptions of labels for mental disorders. Social Psychiatry and Psychiatric Epidemiology, 48(4), 659–671. https://doi.org/10.1007/s00127-012-0532-7.
- Szeto, A., Dobson, K. S., & Knaak, S. (2019). The Road to Mental Readiness for First Responders: A Meta-Analysis of Program Outcomes. *Canadian Journal of Psychiatry*, *64*(1_suppl), 18-29. https://doi.org/10.1177/0706743719842562.
- Team, R. C. (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna. https://www.R-project.org.
- The jamovi project (2022). Jamovi (Version 2.3) [Computer Software]. https://www.jamovi.org
- Thornicroft, G., Rose, D., Kassam, A., & Sartorius, N. (2007). Stigma: Ignorance, prejudice or discrimination?. *British Journal of Psychiatry*, 190(3), 192–193. https://doi.org/10.1192/bjp.bp.106.025791
- Tsutsumi, A. (2011). Development of an Evidence-based Guideline for Supervisor Training in Promoting Mental Health: Literature Review. Journal of occupational health, 53(1), 1–9. https://doi.org/10.1539/joh.r10002.
- Weston, D., Hudson, C., Carroll, D., Coomber, S., & Amlôt, R. (2019). Evaluating a pilot mental health awareness for managers' training course. *Occupational Medicine*, 69(4), 251–257. https://doi.org/10.1093/occmed/kgz061.

- World Health Organization. (2022). The WHO guidelines on mental health at work. https://www.who.int/publications/i/item/9789240053052
- Winkler, P., Janoušková, M., Kožený, J., Pasz, J., Mladá, K., Alexová, A., Tušková, E., & Evans-Lacko, S. (2017). Short video interventions to reduce mental health stigma: a multi-centre randomised controlled trial in nursing high schools. Social Psychiatry And Psychiatric Epidemiology, 52(2), 1549–1557. https://doi.org/https://doi.org/10.1007/s00127-017-1449-y
- Winkler, P., Formánek, T., Mladá, K., & Evans Lacko, S. (2021). Development of public stigma toward people with mental health problems in Czechia 2013–2019. *European Psychiatry*, *64*(1), e52. https://doi.org/10.1192/j.eurpsy.2021.2226.

The research paper passed the double-blind review process. | Received: 11 November 2023; Revised: 12 January 2024; Accepted: 24 January 2024; Published in the thematic issue: 29 March 2024