

# Improving workplace mental health literacy in Hong Kong: abridged secondary publication

LT Lam \*, P Wong, MK Lam, P Reddy

## KEY MESSAGES

1. An intervention comprising a workplace environmental scan and a psychoeducation training course for workplace issues and mental health literacy effectively improved mental health literacy and mental well-being among workers.
2. This intervention should be integrated into the Occupational and Health Safety legislation as compulsory workplace training. In proportion to the workforce size, trained officers should be available to provide support when workers require mental health assistance.

Hong Kong Med J 2024;30(Suppl 3):S29-31

HMRP project number: 02181028

<sup>1</sup> LT Lam, <sup>2</sup> P Wong, <sup>3</sup> MK Lam, <sup>4</sup> P Reddy

<sup>1</sup> Macau University of Science and Technology, Macau SAR, China

<sup>2</sup> The Mental Health Association of Hong Kong, Hong Kong SAR, China

<sup>3</sup> STEM College, RMIT University, Australia

<sup>4</sup> Faculty of Science, Engineering & Technology, Swinburne University of Technology, Australia

\* Principal applicant and corresponding author: tmlam@must.edu.mo

This grant was awarded while LT Lam (original Principal Applicant) was based at Tung Wah College (Administrative Institution)

## Introduction

Full-time workers in Organisation for Economic Co-operation and Development countries are estimated to spend approximately 37% of their time working on a normal day.<sup>1</sup> Workplace mental health is a major health concern. The workplace is an important venue for preventing mental health problems and promoting mental wellness.<sup>2</sup> In its Mental Health Action Plan 2013-2020, the World Health Organization states that the workplace should be the main focal environment for mental health promotion.<sup>3</sup> Community-based prevention and early intervention programmes (including those in the workplace) for employees may contribute to early identification and intervention of mental health problems. There are two main types of intervention programmes: person-directed and organisation-directed.<sup>4</sup> The effects of person-directed intervention programmes tend to be short ( $\leq 6$  months); in contrast, the effects of organisation-directed programmes can last for  $\geq 12$  months. Programmes targeting both the organisation and the individual should be developed.<sup>4</sup> This study aimed to assess the effects of a workplace mental well-being intervention programme for organisations and individuals on improving mental health literacy, work-related burnout and stress, and health-related quality of life among workers.

## Methods

This phase III waitlist cluster randomised controlled trial used different work sites or branch offices as the primary units of randomisation. The intervention programme comprised an organisation-directed

component and an individual-directed component. For the former, a senior social worker with expertise in workplace issues conducted workplace environment scans using the Moos Work Environment Scale.<sup>5</sup> De-identified and aggregated assessment data were provided to the management, along with a professional interpretation of the findings. Possible strategies were offered to resolve the identified issues. Site management was encouraged to use this information to improve the work environment. For the latter, the Workplace Mental Health First Aid training course, which comprises a series of self-paced online e-Learning modules on stress reduction and burnout prevention, was provided to workers. After completion of the course, a face-to-face group session was conducted to allow participants to clarify any queries with the trainer and to gain hands-on experience through communication skills practice.

The primary outcome measure was mental health literacy among workers, which was assessed using the Australian National Mental Health Literacy and Stigma Survey.<sup>6</sup> Its Chinese version has been validated by the Mental Health Association of Hong Kong. Considering the local context, only relevant components were used: correct recognition of a mental problem, help-seeking intention, stigmatisation, and social distancing. Secondary outcomes included burnout, stress, and health-related quality of life. Burnout was evaluated using the Maslach Burnout Inventory.<sup>7</sup> Stress was assessed using the Anxiety subscale of the Depression, Anxiety, and Stress Scale, which has good reliability and validity.<sup>8,9</sup> Health-related quality of life was measured using the European Quality of Life-5 Dimensions.<sup>10,11</sup> Participants were assessed at

baseline, after completion of the intervention, and at a 3-month follow-up. Intention-to-treat analyses were performed.

## Results

Of 456 participants recruited from five corporations, 229 (50.2%) were randomly allocated to receive the intervention programme first. All participants completed the online modules and the face-to-face session. The intervention and control groups were comparable in terms of baseline characteristics (Table 1).

After the intervention, compared with the control group, the intervention group had improved mental health literacy scores in terms of correct recognition of a mental problem (3.4 vs 3.2,  $P=0.003$ ), help-seeking intention (12.9 vs 11.9,  $P<0.001$ ), and stigmatisation (26.3 vs 24.5,  $P<0.001$ ); improved stress score (6.7 vs 7.5,  $P=0.015$ ); and improved burnout scores in terms of professional accomplishment (28.2 vs 27.7,  $P=0.035$ ) [Table 2].

Of the 456 participants, 273 (60.0%) responded to the 3-month follow-up survey. Improvement in the mental health literacy scores persisted in terms of help-seeking intention ( $P=0.014$ ), stigmatisation ( $P<0.001$ ), and social distancing ( $P<0.001$ ) [Table 3].

## Discussion

Our findings support the efficacy of the workplace mental health intervention programme on improving mental health literacy and alleviating stress and burnout, which are precursors to more severe mental health illnesses. Improved mental health literacy is protective against mental health problems. Work is a key component of daily life; workers' mental states affect the work environment, and the work environment affects workers. Thus, worker and work environment variables should be addressed concurrently to improve the overall well-being of workers. The COVID-19 pandemic has accelerated the use of digital health solutions for healthcare provision, health education, and health promotion.

## Funding

This study was supported by the Health and Medical Research Fund, Health Bureau, Hong Kong SAR Government (#02181028). The full report is available from the Health and Medical Research Fund website (<https://rfs2.healthbureau.gov.hk>).

## Disclosure

The results of this research have been previously published in:

1. Lam LT, Wong P, Lam MK. Protocol for a phase III wait-listed cluster randomised controlled trial of an intervention for mental well-being through enhancing mental health literacy and improving work friendliness in Hong Kong. *Trials* 2019;20:672.
2. Lam LT, Lam MK, Reddy P, Wong P. Factors

TABLE 1. Baseline characteristics of participants (n=456)

Characteristic	Control (n=227)*	Intervention (n=229)*	P value
Age, y	40.5±1.1	40.9±1.4	0.575
Male sex	97 (42.7)	118 (51.5)	0.104
University or above education level	173 (76.2)	190 (83.0)	0.109
Married	135 (59.5)	136 (59.4)	0.988
Full-time employment	227 (100)	227 (99.1)	0.407
Flexible hours	82 (36.1)	82 (35.8)	0.926
Regular exercise	178 (78.4)	166 (72.5)	0.198
Smoker	8 (3.5)	9 (3.9)	0.864
Drinker (moderate/heavy)	4 (1.8)	4 (1.7)	0.981
Intended to resign	99 (43.6)	107 (46.7)	0.203
Burnout			
Emotional exhaustion	20.1±0.8	20.9±0.8	0.611
Depersonalisation	6.5±0.4	6.6±0.4	0.897
Professional accomplishment	28.0±1.0	28.0±0.8	0.999
Stress	7.1±0.3	7.4±0.3	0.541
Quality of life (self-rating)	80.7±1.4	70.3±1.0	0.568
Mental health literacy			
Correct recognition of a mental problem	3.3±0.05	3.3±0.03	0.567
Help-seeking intention	12.1±0.2	12.2±0.3	0.611
Stigmatisation	24.5±0.5	24.9±0.5	0.213
Social distancing	12.1±0.3	12.2±0.4	0.709

\* Data are presented as mean±standard deviation or No. (%) of participants

TABLE 2. Outcome measures after the intervention programme (n=456)

Outcome measures	Control (n=227)*	Intervention (n=229)*	P value (adjusted)
Burnout			
Emotional exhaustion	20.5±1.0	20.9±0.6	0.872
Depersonalisation	6.9±0.6	7.4±0.3	0.689
Professional accomplishment	27.7±1.2	28.2±0.8	0.035
Stress	7.5±0.5	6.7±0.4	0.015
Quality of life (self-rating)	80.5±1.6	81.5±0.8	0.375
Mental health literacy			
Correct recognition of a mental problem	3.2±0.1	3.4±0.1	0.003
Help-seeking intention	11.9±0.2	12.9±0.3	<0.001
Stigmatisation	24.5±0.6	26.3±0.5	<0.001
Social distancing	12.3±0.6	11.9±0.5	0.160

\* Data are presented as mean±standard deviation

TABLE 3. Outcome measures at baseline, post-intervention, and 3-month follow-up

Outcome measures	Baseline (n=456)*	Post-intervention (n=456)*	3-month follow-up (n=236)*	P value
<b>Burnout</b>				
Emotional exhaustion	20.5±11.0	20.5±11.7	20.9±11.1	0.175
Depersonalisation	6.5±5.7	7.3±6.0	8.0±6.2	0.543
Professional accomplishment	27.5±8.8	27.4±9.3	27.8±8.9	0.332
<b>Stress</b>				
Quality of life (self-rating)	80.3±11.5	81.0±10.7	81.3±12.0	0.084
<b>Mental health literacy</b>				
Correct recognition of a mental problem	3.2±0.6	3.4±0.7	3.3±0.7	0.195
Help-seeking intention	12.4±1.9	12.7±2.3	12.7±2.1	0.014
Stigmatisation	24.7±3.6	25.8±4.1	25.8±3.9	<0.001
Social distancing	12.5±3.2	12.1±3.3	11.9±3.5	<0.001

\* Data are presented as mean±standard deviation

associated with work-related burnout among corporate employees amidst COVID-19 pandemic. *Int J Environ Res Public Health* 2022;19:1295.

3. Lam LT, Lam MK, Reddy P, Wong P. Efficacy of a workplace intervention program with web-based online and offline modalities for improving workers' mental health. *Front Psychiatry* 2022;13:888157.

4. Lam LT, Lam MKP. A web-based and mobile intervention program using a spaced education approach for workplace mental health literacy: cluster randomized controlled trial. *JMIR Ment Health* 2024;11:e51791.

## Acknowledgements

We thank Ms Brenda Lee for administrative support, as well as Mr Vincent Wong and Mr Hep Ng from the Mental Health Association of Hong Kong, and Mr Lok Tong Lee and Ms Jammie Chan for assistance. The process of recruitment and data collection was disrupted by the COVID-19 pandemic. This project would not have been completed on time without their efforts and hard work.

## References

1. Work-Life Balance. Accessed 7 June 2021. Available from: <https://www.oecdbetterlifeindex.org/topics/work-life-balance/>.
2. Gabriel P, Liimatainen MR; International Labour Organisation. Mental health in the workplace: introduction: executive summary. Accessed 7 June 2021. Available from:

- <https://www.ilo.org/media/309556/download>.
3. World Health Organization. Mental health action plan 2013-2020. Accessed 7 June 2021. Available from: <https://www.who.int/publications/i/item/9789241506021>.
4. Awa WL, Plaumann M, Walter U. Burnout prevention: a review of intervention programs. *Patient Educ Couns* 2010;78:184-90.
5. Moos RH. Work Environment Scale Manual. Development, applications, research: a social climate scale. Consulting Psychologists Press; 1994.
6. Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health literacy": a survey of the public's ability to recognise mental disorders and their belief about the effectiveness of treatment. *Med J Aust* 1997;166:182-6.
7. Maslach C, Jackson SE. Maslach Burnout Inventory Manual. 2nd ed. Palo Alto: Consulting Psychologist Press; 1986.
8. Antony MM, Bieling PJ, Cox BJ, Enns MW, Swinson RP. Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychol Assess* 1998;10:176-81.
9. Wang K, Shi HS, Geng FL, et al. Cross-cultural validation of the Depression Anxiety Stress Scale-21 in China. *Psychol Assess* 2016;28:e88-e100.
10. Herdman M, Gudex C, Lloyd A, et al. Development and preliminary testing of the new five-level version of EQ-5D (EQ-5D-5L). *Qual Life Res* 2011;20:1727-36.
11. Cheung PWH, Wong CKH, Samartzis D. Psychometric validation of the EuroQoL 5-Dimension 5-Level (EQ-5D-5L) in Chinese patients with adolescent idiopathic scoliosis. *Scoliosis Spinal Disord* 2016;11:19.