

# Evidence-based Lifestyle Medicine Interventions for Enhancing the Mental Health of Law Enforcers in Hong Kong: A Pilot Randomised Controlled Trial

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## Background

Law enforcement has long been recognized as one of the most stressful professions in the world (e.g. Crank & Caldero, 1991; Li, Cheung, & Sun, 2021). Law enforcers, particularly police officers, are under constant risks and stressors of different duty-related events. However, they could be reluctant to seek psychological support due to the stigmatization of mental illness in the law enforcement culture (Stuart, 2017). Local researchers found that Hong Kong Chinese had been less forthcoming than European Americans and Chinese Americans to seek psychological support since having mental illness could be perceived as a personal failure and be stigmatized in the traditional Chinese culture (Chen & Mak, 2008; Hong Kong Police Force [HKPF], 2007). It is in this spirit that the present research was initiated to explore effective ways to de-stigmatise and enhance the willingness of law enforcers to seek mental health services.

## Objectives

Given the relatively stigma-free nature of lifestyle medicine intervention (Walsh, 2011), the present study served as a **pilot and pioneering attempt to examine the efficacy of integrated lifestyle medicine practices** in enhancing the mental health of law enforcers.



## Methods

- A **pilot two-arm randomised controlled trial** was conducted by the Psychological Services Group (PSG) of the Hong Kong Police Force (HKPF) under the psychological wellness project "HERO" ("HEalthy and Resilient Officer") in collaboration with the Chinese University of Hong Kong (CUHK).
- A total of **18 police officers** were recruited as participants and randomly assigned to the intervention (Tx) group and waitlist control (WL) group.
- Tx group attended a **six-week lifestyle medicine programme** that consisted of five lifestyle factors during May to July 2019.
- Assessments were conducted at **baseline and one-week post-intervention** time point via the in-house mobile app.
- Primary outcome measure:** Patient Health Questionnaire-9 (PHQ-9)

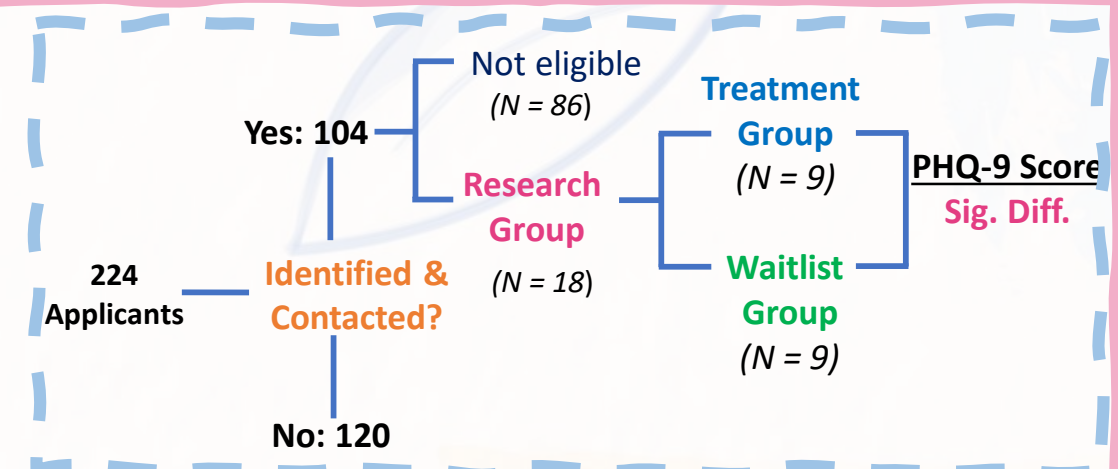


Table 1 : Summary of the content delivered in the lifestyle medicine intervention group

<b>Session 1</b> 	<ul style="list-style-type: none"> <li>Overview of the programme</li> <li>Psychoeducation of <b>stress management</b></li> <li>Introduction of <b>mindfulness</b></li> <li><b>Experiential:</b> Practise of mindful breathing with utilization of biofeedback</li> </ul>
<b>Session 2</b> 	<ul style="list-style-type: none"> <li>Psychoeducation of the relationship between <b>nutrition, smoking, drinking &amp; mental health</b></li> <li>Reading food label</li> <li>Making wise choice while dining out</li> <li><b>Experiential:</b> Cooking demonstration &amp; dining</li> </ul>
<b>Session 3</b> 	<ul style="list-style-type: none"> <li>Psychoeducation of the <b>mental benefits of physical activity</b></li> <li><b>Experiential 1:</b> Practise of low-intensity physical activity</li> <li><b>Experiential 2:</b> Yoga practise</li> </ul>

<b>Session 4</b> 	<ul style="list-style-type: none"> <li>Psychoeducation of <b>mood regulation &amp; Chinese dietary recommendation</b></li> <li><b>Experiential:</b> Savour therapeutic Chinese herbal tea</li> </ul>
<b>Session 5</b> 	<ul style="list-style-type: none"> <li>Psychoeducation of circadian rhythm, homeostasis &amp; <b>sleep hygiene</b></li> <li>Psychoeducation of worry time</li> <li><b>Experiential:</b> practise of diaphragmatic breathing</li> </ul>
<b>Session 6</b> 	<ul style="list-style-type: none"> <li>Psychoeducation of <b>hope, optimism &amp; positive emotions</b></li> <li><b>Experiential 1:</b> Compare selfie with &amp; without smile on the face</li> <li><b>Experiential 2:</b> Generate positive and negative vocabulary list</li> <li><b>Experiential 3:</b> Expressing gratitude via text message to another and writing gratitude journal</li> <li>Round-up of the programme</li> <li><b>Action planning &amp; goal setting</b></li> </ul>

## Results

- A significant **positive** intervention effect was found on the **general psychological well-being** as analysed by a paired sample t-test on the PHQ-9 rating [ $t(5) = 2.56, p = .05$ ].
- An unexpected significant **negative** impact on the **Quality of Life (QoL)** was found at one-week post-intervention as assessed by the SF-6D [ $t(5) = 2.57, p = .05$ ]

Table 3 : Changes between baseline and 1-week post-intervention for Tx group

Measurement	Pre-intervention		Post-intervention		t-value	p-value
	Mean	SD	Mean	SD		
PHQ-9 (General psychological well-being)	11.17	2.48	7.50	2.43	2.56	.05*
DASS-D (Depression)	8.00	7.54	7.67	6.86	.81	.94
DASS-A (Anxiety)	11.33	4.32	12.67	7.34	-.46	.67
DASS-S (Stress)	18.33	5.72	20.33	8.52	-.59	.58
SF-6D (QoL)	2.64	.45	1.56	.69	2.57	.05*

\* $p \leq .05$

## Limitations & Future Directions

- Remarkable incompleteness of enrolment information resulting in a **small sample size**, with difficulty to generalize the current findings.
- The **unprecedented social movement** in Hong Kong since June 2019 had brought some unanticipated impact to the current study.
- Applicants might harbour worry about **confidentiality and personal data privacy** as enrolment was made via an online system, given it was a time when police officers were risked being doxed and cyber-bullied on social media.

## Conclusion

- Positive and encouraging findings in general.**
- Empirical significance:** Provided converging evidence that lifestyle medicine could bring a positive impact on the mental health in law enforcers.
- Practical significance:** This relatively stigma-free mental health service is expected to become more receptive in the law enforcement setting to facilitate the help-seeking and well-being of law enforcers.

## Remarks

- The trial was registered with **ClinicalTrials.gov** provided by the U.S. National Library of Medicine (**Identifier: NCT03925792**) prior to commencing participant recruitment.
- Approval to conduct the study was received from **the Survey and Behavioural Ethics Committee (SBREC) (Reference No.: SBRE-18-592)** of the CUHK and the Hong Kong Police College of the HKPF

## Acknowledgements

- Psychological Services Group (PSG) of the Hong Kong Police Force (HKPF)
- Public Mental Health Laboratory of the Department of Psychology, The Chinese University of Hong Kong (CUHK)

## Discussions

### Efficacy of Stigma-free Lifestyle Medicine Interventions for Law Enforcers

- First customized lifestyle medicine protocol** implemented in the law enforcement setting in Hong Kong.
- Provided **preliminary support** to the effectiveness of a six-week lifestyle medicine intervention programme in enhancing the general psychological well-being of police officers.
- Unexpected negative impact** on the quality of life that could be explained by the brief intervention of positive psychology in only one session.

### References

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