

Research Report

SELF-REPORTED EMOTIONAL EXPERIENCE AMONG POLICE PERSONNEL BEFORE AND AFTER ATTENDING A MINDFULNESS-BASED INTERVENTION (MINDFUL LIFE MANAGEMENT-MLM) – AN OBSERVATIONAL STUDY

Krishnan Sivasubramoney¹, Lekshmy Kothandaraman², Anil Prabhakaran^{1*}, Sandhya Bharathadas³, Jayageetha Kumari⁴

¹Department of Psychiatry, Government Medical College, Thiruvananthapuram

²B- GHUD Academy, Mavelikkara, Alappuzha

³Additional Director General of Police, Police Training College, Thiruvananthapuram

⁴Department of Community Medicine, Government Medical College, Thiruvananthapuram

*Corresponding address: Professor of Psychiatry, Government Medical College, Thiruvananthapuram-695011, Kerala, India.

Email address: dranilprabhakaran@gmail.com

ABSTRACT

Background: Stress has been proven to be hazardous, resulting in significant physical, emotional, social and cognitive disturbances which are unpleasant. Police officers have elevated rates of cardiovascular diseases, sleep disorders, anxiety disorders, depression and Post Traumatic Stress Disorder (PTSD). Kerala Police has implemented several programs for management of stress among its members. Mindfulness-Based Interventions (MBIs) have been shown to enhance emotional intelligence, reduce negative emotions and health outcomes in police officers. **Objective:** The objective of the current study is to study the effectiveness of an MBI in reducing the negative emotions among police officers. **Methods:** The present study is an observational study which attempts to assess and compare the subjectively reported emotion and Mindfulness level among police personnel before and six weeks after attending the Mindful Life Management (MLM) workshop. **Results:** Results of the present study suggests a statistically significant association between subjective emotional experience and the MBIs. Five Facet Mindfulness Questionnaire (FFMQ) scores also were found to be significant statistically. FFMQ scores before and after the MLM workshop were found to be statistically significant. **Conclusion:** Results of the present study points to the fact that MLM can be thought of as a method of intervention to manage emotional turmoil among police personnel of our state. The relationship between the change in emotion and change in FFMQ score has to be further explored with adequate sample size. This ongoing study comparing the stress and emotional levels of the police force in the State of Kerala before and after MLM course will help to strengthen further the effects of MBIs in recognizing their emotional state.

Keywords: mindfulness, life management, emotional experience

INTRODUCTION

The World Health Organization has classified stress as the "health epidemic of the 21st century".¹ Excess stress has been proven to be hazardous, resulting in significant physical, emotional, social and cognitive

disturbances which are unhealthy and unpleasant. Stress has been broadly divided into eustress (positive stress) and distress (negative stress). Distress typically has

Access the article online:

<https://kjponline.com/index.php/kjp/article/view/210>

DOI: <https://doi.org/10.30834/KJP.33.2.2020.210>

Received: 25/8/2020. Web publication: 31/10/2020

QR Code



How to cite the article: Krishnan S, Lekshmy K, Anil P, Sandhya B, Jayageetha K. Self-reported emotional experience among police personnel before and after attending a mindfulness-based intervention (Mindful Life Management-MLM) – an observational study. Kerala Journal of Psychiatry 2020, 33(2):125-130.

been described to have the potential to do significant damage by impairing a person's resource utilization ability and coping skills². Thoughts and emotions play a significant role in creating stress and distress.

Policing is one of the occupations which has proven to be highly stressful. The profile of the job, the expectations, the social attitudes play an important role in determining stress. Stress among police officers potentially reduces the effectiveness of the personnel to carry out their jobs. Police officers take the daily risk of exposure to acute traumatic events and high levels of chronic organizational stressors. These have an erosive effect on physical and mental well being. Police officers have elevated rates of cardiovascular diseases, sleep disorders, depression and Post Traumatic Stress Disorder (PTSD).³

Few studies have been conducted to assess the level of subjective emotion and stress among police personnel.⁴ In a cross-sectional assessment of police stress among 296 police personnel in Puducherry, India, 83.8% of police personnel had high levels of stress.⁵

For several years the police force in Kerala has been attempting to tackle the problem of stress among its officers. In 2017 January, Help and Assistance to Tackle Stress (HATS) were started at the Special Armed Police Battalion Camp, in the city of Thiruvananthapuram, to provide appropriate consultation services to police officers. Another program named "Raksha" was initiated during the middle of 2017 jointly by the Police Training College, Thiruvananthapuram and Department of Psychiatry, Government Medical College Thiruvananthapuram (hereafter called the Joint Unit/JU). It aimed to provide awareness about the mental health aspects and also about the related legal aspects to police officers. Besides, the program included a 90-minute session on Mindfulness-Based Stress Management for police officers.

Subsequently, the JU decided to implement an adapted version of Mindfulness-Based Intervention namely Mindful Life Management (MLM), a stress management program developed and followed by the Holistic and Psychosomatic Clinic of the Department of Psychiatry. MLM is a modified version based on the basic principles of mindfulness-based stress management program developed and practised in India. It is relatively affordable and easy to train and practice.⁶ The choice of

an MBI was based on the fact that this was a brain-based technique supported by empirically validated literature.⁷

Mindfulness has been defined by Jon Kabat Zinn, considered as the father of modern mindfulness revolution, as a moment to moment non-reactive, non-judgmental awareness.⁸ Various methods have been used for training people in cultivating mindfulness through workshops. The most common among these methods is the practice of meditations.⁹

Evidence supports the use of MBIs as an effective psychological intervention.¹⁰ Mindfulness is associated with a reduction in anxiety¹¹, depression and addictive behaviours.¹² Studies have shown that discrete facets of mindfulness account for significant differential variance in the reduction of organizational stress, operational stress and anger.¹³ Other studies have reported enhanced resilience as shown by reduced salivary cortisol, self-reported aggression, organization stress, burnout, sleep disturbance and reported an increase in psychological flexibility and non-reacting at post-training.¹⁴ MBIs have been shown to reduce stress, emotional exhaustion and depersonalization in the police. Personnel.^{15,16}

Mindfulness has been found to reduce reactive behaviours and reduce distractions.¹⁷ Our own pilot study with healthy samples and individuals with and without depression has shown MBI to be useful for stress management¹⁸ and alleviating symptoms of depression.¹⁹ Hence we adopted this program as an effective means of training police officers and to assess the effect. The present study is the first of its kind to compare the subjectively reported emotional state of police personnel in the context of MLM. The program also has several positive aspects, including avoiding unnecessary expenses on the part of the Government through hiring trainers for stress management programs from outside. It was also planned that police officers trained through these workshops could be used to train other police personnel from within the state. The current study aimed to study the effectiveness of an MBI in reducing the negative emotions among police officers.

MATERIALS AND METHODS

The current observational study attempted to assess and compare the subjectively reported emotion and

Mindfulness level among police personnel before and six weeks after attending the MLM workshop. The study was conducted with the approval of the institutional ethics committee.

Participants and Trainers

Police personnel selected by the Police Training College (PTC) from all over Kerala, attended the MLM workshops organized by the JU. The sample size was calculated to be 210 for α -error of 0.05, and power 80%. About 70 police personnel were trained as a part of the initial Training of Trainer (TOT) program. Mindfulness requires persistent and perseverant practice on the part of the participants. By convenient sampling, 70 police personnel were selected by police authorities. Thirty subjects completed the logbook, which was considered as a proxy measure of compliance with the intervention. From among these 30 subjects, five people were further excluded as they could not find time to practice. Remaining 25 individuals were included in the final analysis.

Three trainers were selected based on the criteria which stipulate a minimum experience of 10 years in practice and teaching in Mindfulness workshops. Our trainers had a mean experience of 11.3 years of experience in practice and teaching in Mindfulness workshops.

The results discussed here are a part of the original project to compare the stress and study the effect of MLM on stress.

The assessment tool, in addition to the sociodemographic data, included subjectively reported emotional experience during the previous two months and the Five facet Mindfulness Questionnaire (FFMQ-15).

Five facet Mindfulness Questionnaire (FFMQ-15)²⁰

FFMQ is one of the most widely used self-report measure of mindfulness. The 15-item FFMQ is a short form (15 item version) of the 39-item Five Facet Mindfulness Questionnaire FFMQ. It includes the same five facets as the long form: Observing, Describing, Acting with Awareness, Non-Judging of inner experience, and Non-Reactivity to inner experience. The 15-item FFMQ (FFMQ-15) includes three items for each facet. The factor structure of the FFMQ-15 was consistent with that of the FFMQ-39, and there were large correlations between total facet scores of the short and long forms were well correlated. The factor

structure and psychometric properties of the FFMQ-15 were also tested. Key evidence for the validity of the FFMQ has also been found in the measure's responsiveness to various forms of mindfulness training. Changes in mindfulness (indexed using the FFMQ and similar self-report measures of mindfulness) have been shown to have moderate effect sizes on clinical outcomes in meta-analyses of mindfulness-based interventions.²⁰

Subjective Emotional Experience

Emotions subjectively experienced by the subjects were categorized as positive and negative. Subjects were instructed to choose among the emotions, joy, happiness, calm, relaxed, sadness, fearful, anxious, frustrated as their subjective emotional state. For this study, the first four were considered as positive, and the remaining were considered as negative.

Mindful Life Management

Mindful Life Management (MLM) is a mindfulness-based stress management program structured and formulated by the Holistic and Psychosomatic Clinic of the Department of Psychiatry, Government Medical College, Thiruvananthapuram based on the principles of mindfulness. MLM is usually conducted as an eight-week session with a 150-minute session each, on a prefixed day every week (Total 20 hours). The training included PowerPoint presentations, didactic mini-lectures, practice sessions and relevant discussions. Practice session included mindfulness meditations, mindful movements, awareness on life-skills and also practice sessions on the application of mindfulness in different settings. For the purpose of the current study, the eight-week program was condensed into three days from 10 AM to 6 PM. Excluding lunch and refreshment time, a total of 7 hours were being spent on practice and training (Total 21 hours). The assessments were done independently by another team. The pre-workshop assessment (Assessment 1) was done before the training and the post-workshop assessment (Assessment 2) 6 weeks after the end of the workshop when they reported for a booster session. Candidates were selected based on the self-report and examination of a filled logbook which were to be submitted during the booster session. Thirty people were trained as a part of this project. Five subjects were excluded for want of required time of practice. The results reported here are on the remaining 25 people.

RESULTS

Table 1 – Selected sociodemographic variables (N=25)

Variable	Category	Frequency (Percent)
Age in Years	30-39	6(24)
	40-49	12(48)
	50-59	7(28)
Gender	Male	23(92)
	Female	2(8)
Education	Up to Higher Secondary	4(16)
	Degree and Above	21(84)
	CPO	12(48)
Rank	Other higher ranks	13(52)
	Married	24(96)
Marital Status	Unmarried	1(4)
	Practical yoga or meditation before the workshop	Yes
No		10(40)
Duration of service in Years	0-4.99	2(8)
	5-9.99	4(16)
	10-14.99	4(16)
	15-19.99	3(12)
	20-24.99	4(16)
	25-29.99	8(32)

The results elucidated below are the initial feasibility assessment of a major study being done JU. The sample included 25 police officers who had completed the Phase I MLM-TOT program. On average, these people had practised mindfulness techniques (formal and informal) for about six weeks. The information shown below is of 25 participants who had been practising MLM for 6 weeks after the three days introductory workshop. These participants were interested in becoming trainers of MLM for Kerala Police.

The mean age of the participants was 44.4 years (SD = 6.34; Range=31-54 years). There were only two females (8%). Other sociodemographic details are given in Table 1.

Table 3 – Comparison of Total FFMQ Score with and without the Observation Subscale score.

Name of the Scale	Mean	SD	t	df	p-value
FFMQ without Observation Subscale score	2.76	6.37	2.163	24	0.041*
FFMQ with Observation Subscale score	4.88	7.13	3.421	24	0.002**

* Significant at 0.05 level

** Significant at 0.01 level. FFMQ-Five facet Mindfulness Questionnaire

There was a significant association between subjective emotional experience and the Mindfulness-Based Intervention (Table 2).

Both FFMQ scores with and without Observation subscale score were found to be significant at 0.01 and

Table 2 - Comparison of the self-reported subjective emotional experience of the previous month before and after MLM

Emotions before MLM		Emotions after MLM		
		Positive	Negative	Total
Emotions before MLM	Positive	5	0	5
	Negative	16	4	20
Total		21	4	25

Mc Nemar Chi-square statistic-14.06; <0.001. MLM- mindful life management

0.05 levels, respectively (Table 3). The relation between the change in emotion and change in FFMQ score will be further explored with an adequate sample size in the original study.

DISCUSSION

The present study shows a shift from negative emotion towards positive one following the MLM workshop. The results in the present study show that a significant number of people who had experienced negative emotions at the beginning of the program had experienced positive emotions, as evidenced by the subjective report. At the beginning of the study, 21 subjects out of 25 were subjectively reporting their emotional experience as negative. Six weeks after the intervention, 16 from among these 21 subjects reported their emotional experience as positive. This result was found to be statistically significant, suggesting the possibility of its ability in creating awareness and converting the experience of negative emotions to positive emotions. MBIs are effective in emotion regulation and in creating emotional awareness in previous studies²¹ and also in enhancing emotional intelligence.¹⁶

The study also showed that there is an increase in Mindfulness score as assessed with FFMQ. The results of pre-post interventions both with and without the observation subscale were found to be statistically significant at a p-value of 0.01 and 0.05, respectively. The relation between FFMQ score and the subjective emotional experience was not found to statistically significant. It needs to be addressed with adequate sample size as is being planned in the original study. This has to be further explored with the adequately sampled study. The current study points to the possibility of better emotional understanding, awareness and shifts to the positive emotion from the negative emotional state following the MLM workshop.

This study has several limitations. Only 25 people out of 70 were included in the study. Systematic investigation for the dropouts and their characteristics were not studied. The study was done after six weeks of the MLM training. The final assessment will be repeated after a period of one year which is expected to give more accurate and reliable results. The sample size taken for the present pilot study is also limited, as the study is currently under progress. This is a part of an adequately powered ongoing study. Another limitation was that there was no comparison arm for the study.

CONCLUSION

This is a preliminary communication of the effect of MLM on the perceived emotion in police officers. The program, if found effective by further studies, can be effectively implemented by the State Government in training their police personnel. The study has its importance as it can potentially help to alleviate the negative emotional state if replicated. If the findings are replicated, it will add to a meaningful method for emotional control among the police officers.

Financial support and sponsorship

Nil

Conflicts of interest

None declared

REFERENCES

1. Workplace stress: A 21st century health epidemic [Internet]. [cited 2019 May 3]. Available from: <https://www.stepjockey.com/workplace-stress-a-21st-century-health-epidemic>
2. Selye, H. (1976). *The Stress of Life* (Revised ed.). New York: McGraw-Hill.
3. Exploring the Effects of Mindfulness Training on Police Officer Resilience and Well-Being - Center for Healthy Minds [Internet]. [cited 2019 May 3]. Available from: <https://centerhealthyminds.org/science/studies/exploring-the-effects-of-mindfulness-training-on-police-officer-resilience-and-well-being>
4. Queirós C, Passos F, Bártolo A, Marques AJ, da Silva CF, Pereira A. Burnout and Stress Measurement in Police Officers: Literature Review and a Study With the Operational Police Stress Questionnaire. *Frontiers in Psychology*. 2020;11:1–23.
5. Saya G, Venkata N. An assessment of perceived stress among police personnel in Puducherry, India. Vol. 1. 2014. 61 p.
6. Sivasubramoney K, Mony J M, Lekshmy K. Perceptions of Teachers from North Kerala about an Indian Mindfulness-Based Intervention (MLM-Mindful Life Management) Following a One Day Introductory Workshop. *Journal of Evidence-Based Medicine and Healthcare*. 2017 Jan 1;4(42):2569–74.
7. Young KS, van der Velden AM, Craske MG, Pallesen KJ, Fjorback L, Roepstorff A, et al. The impact of mindfulness-based interventions on brain activity: A systematic review of functional magnetic resonance imaging studies. *Neuroscience & Biobehavioral Reviews*. 2018 Jan 1;84:424–33.
8. Kabat-Zinn, Jon. *Mindfulness for beginners: Reclaiming the present moment--and your life*. 15th ed. Chicago: Boulder, CO : Sounds True, 2012.
9. Brostoff, Teresa. *Meditation for Law Students: Mindfulness Practice as Experiential Learning*. *Law and Psychology Review*. 2017;41:159–71.
10. Shapiro SL. The integration of mindfulness and psychology. *J Clin Psychol*. 2009 Jun;65(6):555–60.
11. Hoge EA, Bui E, Marques L, Metcalf CA, Morris LK, Robinaugh DJ, et al. Randomized controlled trial of mindfulness meditation for generalized anxiety disorder: effects on anxiety and stress reactivity. *J Clin Psychiatry*. 2013 Aug;74(8):786–92.
12. Garland EL, Froeliger B, Howard MO. Mindfulness training targets neurocognitive mechanisms of addiction at the attention-appraisal-emotion interface. *Front Psychiatry*. 2014 Jan 10;4:173.

13. Bergman A, Christopher M, Bowen S. Changes in Facets of Mindfulness Predict Stress and Anger Outcomes for Police Officers. Vol. 7. 2016.
14. Christopher M, Hunsinger M, Goerling R, Bowen S, S. Rogers B, R. Gross C, et al. Mindfulness-Based Resilience Training to Reduce Health Risk, Stress Reactivity, and Aggression among Law Enforcement Officers: A Feasibility and Preliminary Efficacy Trial. Vol. 264. 2018.
15. Ranta RS Sud Anup. Management of Stress and Burnout of Police Personnel. Journal of Indian Academy of Applied Psychology. 2008 Jan;34(1):29-39.
16. Charoensukmongkol P. Benefits of Mindfulness Meditation on Emotional Intelligence, General Self-Efficacy, and Perceived Stress: Evidence from Thailand. Vol. 16. 2014. 171 p.
17. Mindful Policing: The Future of Force [Internet]. Mindful. 2017 [cited 2019 May 3]. Available from: <https://www.mindful.org/mindful-policing-the-future-of-force/>
18. Sivasubramoney K, Lekshmy K, Sharika Menon. A Study of Changes in Perceived Stress Following an 8 week Mindfulness intervention (Mindful Life Management). IOSR Journal of Dental and Medical Sciences (IOSR-JDMS). 2017 May;16(5):108–14.
19. Sivasubramoney K, Lekshmy K. A Pilot Study on the Effect of Brief Mindfulness Based Cognitive Behaviour Therapy (MBCBT-B) in Individuals with Residual Depressive Symptoms. IJCMS. 2017 Aug;3(08):789–93.
20. Gu J, Strauss C, Crane C, Barnhofer T, Karl A, Cavanagh K, et al. Examining the factor structure of the 39-item and 15-item versions of the Five Facet Mindfulness Questionnaire before and after mindfulness-based cognitive therapy for people with recurrent depression. Psychological Assessment. 2016;28(7):791–802.
21. Williams V, Ciarrochi J, Deane FP. On being mindful, emotionally aware, and more resilient: Longitudinal pilot study of police recruits. Australian Psychologist. 2010 Dec;45(4):274–82.