Stress Management Training Programmes
(Individual Level)

Holly Schroeder

Master of Applied Psychology (Professional), Murdoch University

PSY612: Work and Wellbeing

Dr Graeme Ditchburn

October 4, 2021

Contents

Stress Management Training Programmes (Individual Level)

Executive Summary

History of work

The amount of time individuals spend at work and the impact that work has on an employee's mental, physical, and social wellbeing is often underrated (Schmidt et al., 2019). The work environment has dramatically shifted over the last few decades (Vonderlin et al., 2020). When previously workplaces consisted of predominantly human-lead, manual processes, they now have become somewhat automated following the digital revolution (Vonderlin et al., 2020). However, the introduction of automated processes did not reduce the severity of work stress on employees (Schmidt et al., 2019). Since the digital revolution, the adverse effects of work-related stress have increased, bringing with it prolonged work stress, exhaustion, burnout, and stress-related mental and physical health conditions (Vonderlin et al., 2020). Therefore, research into the cause and impact of work-related stress and possible interventions to reduce work-related stress has become a prolific field of research.

Possible Benefits of Work

Research suggests that although work can negatively impact workers' mental, physical, and social health, it can also provide several benefits (Elliott & Reuter, 2021). Often, workplaces provide employees with improved quality of life due to intrinsic and extrinsic rewards associated with working (Elliott & Reuter, 2021). For instance, a workplace that offers fair pay, job security, job control, and quality work relationships are far more likely to have workers whose mental health improves over time (Elliott & Reuter, 2021). However, in some cases, being employed can be worse for mental health than being unemployed (Elliott & Reuter, 2021).

Workplace Stressors

Several workplace factors contribute to work stress: lack of perceived autonomy, effort-reward imbalance, lack of relatedness amongst workers, poor work conditions, irregular work hours, perceived

injustices in the workplace, and role conflict or ambiguity (Bartlett et al., 2019). These aspects increase the likelihood of workers developing mental or physical health problems following long-term exposure. However, as outlined in the Diathesis Stress Model, distress often results from the interplay between individual and external factors (Colodro-Conde et al., 2017). Therefore, mental or physical health problems caused by chronic work stress are likely the result of both environmental (workplace) and individual differences. Therefore, it is also essential to consider the individual-level factors contributing to varying employee mental, physical, and social wellbeing. An article by Geuens et al. (2017) indicates that personality traits such as high neuroticism alter the way individuals interpret and interact with their environment. Other individual factors that may contribute to increased perception of work stress include poor coping skills, resilience, or past experience (Pragholapati et al., 2020). Thus, it is possible to reduce some of the negative impacts of chronic work-related stress through individual intervention programmes.

Impact of Stress on Nursing

Nursing is an occupation that is prolifically researched regarding the high rate of burnout amongst nursing staff (Geuens et al., 2017). One study conducted across Europe and the USA indicated that of 880 nursing employees, 10%-78% report feeling burned out, with the highest percentage amongst critical care nurses (Geuens et al., 2017). This is a large range, suggesting that there are likely environmental differences between workplaces (hospitals, medical centres, schools etc.), as well as possible cultural differences that may impact reported burnout. The burnout experienced by nurses worldwide results in an overall nursing shortage, a high turnover rate, and a reduced quality of care to their patients (Geuens et al., 2017). Further, there is an increase in the amount of stress and pressure put on existing nurses due to the ongoing nursing shortages and high turnover rate (Yu et al., 2019). Regardless of the workplace and cultural differences, building individual coping skills and resilience is likely to lower this figure and reduce work stress. Research suggests that high levels of resilience mediate the effects of work-related burnout and stress (Yu et al., 2019). However, not all nurses have the skills necessary to manage the demands of their occupation (Yu et al., 2019).

This Report

As discussed, workplaces can have a significant impact on mental, physical, and social wellbeing. Chronic stress often leads to severe and costly health outcomes that can be prevented with the appropriate intervention. This report proposes a possible Stress Management Training Program for critical care nurses working within Fiona Stanley Hospital. Prior literature indicates that between 10% and 78% of nurses report feeling burned out, with the highest percentage of nurses reporting burnout amongst the critical care workers. The proposed intervention was designed to teach critical care nurses the necessary skills to cope with high levels of chronic stress, to mediate the resulting burnout. This paper aims to outline the proposed intervention, implementation, and ongoing evaluation of the program at Fiona Stanley Hospital. Finally, this paper will highlight this intervention's strengths and possible limitations within the critical care nursing population. It is hypothesised that an eight-week mindfulness-based SMTP for critical care nurses will result in lowered levels of stress post-intervention, compared to pre-intervention and the waitlist control group.

Statement of the Problem

Within the nursing population, those nurses who work in the Intensive Care Unit (ICU) or Emergency Department are often faced with the most stressful and traumatic workplace experiences, compared to nurses who work on other, less stressful wards. Fiona Stanley Hospital is the largest public hospital in Western Australia and, therefore, the state's largest educational and training hospital ("Fiona Stanley Hospital", 2021). Implementing a stress management program within Fiona Stanley Hospital provides greater reach for the ongoing implementation of the programme. It can potentially improve occupational stress amongst the hospital's critical care nurses, and trainee nurses who can use the skills learned in this workplace throughout their careers. Teaching trainee nurses good coping skills would increase the reach of potential outcomes following the program and may reduce the cost of mental health problems into the future.

Key Population

Within Western Australia, approximately 40 thousand allied health professionals are working in public hospitals. This study used a sample population of nurses currently working at Fiona Stanley Hospital, the largest public hospital within Western Australia. The target population for this study will include all critical care nurses currently working in Fiona Stanley Hospital. Of these 40 thousand health workers, approximately 4832 of them are nurses employed at Fiona Stanley Hospital. This study focuses on primarily critical care nurses, that is, all nurses who work in the emergency department and the Intensive Care Unit (ICU) at Fiona Stanley Hospital. Within Fiona Stanley Hospital's emergency department and ICU, there are a total of 454 nurses.

The key stakeholders of this study and intervention include other workers employed at Fiona Stanley Hospital and hospital management staff. Following the successful implementation of the proposed intervention, participants are likely to demonstrate improved productivity, improved workplace relationships, and improved communication between them and their coworkers (Karaca & Şişman, 2019). Further, nurses who have participated in the program and learned practical stress management skills will likely achieve more effective patient outcomes (Slatyer et al., 2017). Therefore this intervention has implications at the organisational (hospital), system (nursing team), and individual level (nurse stress levels and patient outcomes).

Definition of Key Constructs

Stress Management Training Programmes

Stress Management Training Programmes (SMTP) are strategies that can reduce stress at either an organisational level or individual level (Holman et al., 2018). At the organisational level, SMTP's interventions create systemic change (Holman et al., 2018). That is, altering company procedures to meet the needs of its employees better. In contrast, the individual-level intervention trains employees in stress management techniques and improves individual stress management skills (Holman et al., 2018). Over both the organisational and individual training domains, SMTP's work to reduce stress in three different

ways. These include reducing worker's exposure to stress by limiting as many stressful stimuli as possible, reducing the duration of potential stress exposure, and providing stress rehabilitation for individuals affected by high levels of stress (Holman et al., 2018).

Mindfulness and Mindfulness-Based Stress Reduction

Mindfulness is the deliberate focus of attention on the present moment (Karaca & Şişman, 2019). Individuals that engage in mindfulness practices are encouraged to observe their circumstances in a judgement-free and accepting manner (Karaca & Şişman, 2019). Mindfulness-Based Stress Reduction MBSR) is a therapeutic intervention that utilises elements of mindfulness to reduce the psychological and physiological symptoms of stress (Karaca & Şişman, 2019). Thus, MBSR is a stress management training program developed by Jon Kabat-Zinn to relieve the symptoms of chronic pain and stress caused by chronic disease (Karaca & Şişman, 2019).

Proposed Intervention

This study focused primarily on SMTP for individuals. The selected SMTP intervention for the target population was a Mindfulness-Based Program as it is relatively efficient, flexible, and cost-effective to administer within a population of shift workers (Vonderlin et al., 2020). A meta-analysis by Vonderlin et al. (2020) indicates that MBSR effectively reduces stress in various work contexts, including high-pressure workplaces such as medical hospitals. Although several evidence-based stress reduction interventions are available to workers, MBSR is regarded as the most effective (Karaca & Şişman, 2019). Initially, MBSR was developed as a group-based program. However, in recent years it has been adapted to be administered digitally to meet the needs of individuals who do not work regular hours. The intervention involved an eight-week program of two, one-hour sessions per week (see Appendix A).

Measures

The assessment of perceived work stress (pre-intervention and post-intervention) was measured using the Nursing Stress Scale (NSS) Questionnaire (Alkhawaldeh et al., 2020). The NSS consists of 34

items divided into seven subscales. A 4-point Likert scale is used to understand the varying levels of stress that nurses experience, ranging from (1) 'never stressful' to (4) 'very frequently stressful' (Alkhawaldeh et al., 2020). The NSS scores vary from 34-136, with higher scores indicating more frequent workplace stress levels (Alkhawaldeh et al., 2020).

The Professional Quality of Life Scale version 5 (PQLS5) measured both the positive and negative occupational experiences of nursing work (Slatyer et al., 2017). The PQLS5 has two primary constructs, including compassion satisfaction associated with the pleasure of caring for others and compassion fatigue associated with workplace burnout and second-hand traumatic stress (Slatyer et al., 2017). It is important to investigate both the positive and negative factors associated with working as a critical care nurse. Understanding the associated positives and negatives will provide researchers with necessary information regarding possible areas for intervention and protective factors.

Development and Design of MBSR Intervention

The development of a practical and functional SMTP is essential to the success of the intervention. The Substance Abuse and Mental Health Services Administration (SAMHSA) guidelines for implementing organisational and individual stress management training programs provide a sound framework to apply ("Organizational and Individual Stress Management", 2021). Another intervention development procedure is outlined in the Tasmanian Government Workplace Health and Wellbeing Guide (Your simple guide to workplace health and wellbeing, 2012). Therefore, the development plan for the SMTP intervention with Fiona Stanley Critical Care Nurses incorporated aspects from both of these organisations.

Step One: Researchers worked collaboratively with Fiona Stanley Hospital's senior managers to understand the proposed intervention's aims, objectives, and required resources. During this step, identify a workplace coordinator who will act as the spokesperson for all SMTP activities.

Step Two: Form a committee with a representative from each possible group of stakeholders. Ensure that the appointed coordinator schedules regular meeting times to gain feedback and assess the progress of the SMTP intervention.

Step Three: Explain confidentiality and gain consent from all eligible participants. Get an understanding of the target sample's needs and use this as a foundation for the SMTP (this may be implemented through a sample-wide survey to ensure all participants have the opportunity to respond). In this step, distribute the first survey package, including the demographic survey (the nurse's age, sex, marital status, education level, tenure as a nurse, tenure in their current ward, and approximate annual income), the NSS Questionnaire, and the PQLS5. Participants were given 30 minutes to complete both questionnaires as a baseline intake measure to be returned to the researchers upon completion. Participants will then be randomly allocated into two Mindfulness-Based Program conditions: Mindfulness-Based Stress Reduction and a waitlist control group.

Step Four: Develop a goal and set a list of SMTP objectives. Ensure that there is access to the appropriate resources for implementing the SMTP strategies and associated activities. Consider making a workplace health and wellbeing policy for the hospital staff.

Step Five: Implement the eight-week MBSR Program (see Appendix A.). In this case, the MBSR intervention may be administered electronically to ensure accessibility for all nurses regardless of their shift timetable. Participants should complete two, one-hour long MBSR activities per week.

Step Six: Make sure that there is a long-term plan for how the appointed coordinator might continue the program after the completion of the study. This may take the form of scheduled mental health days, wellbeing challenges (e.g. a mediation challenge or a self-care checklist), on-site meditation classes etc.

Step Seven: After eight weeks of MBSR (Karaca & Şişman, 2019), distribute the second survey package. This package should contain the follow-up NSS Questionnaire, the follow-up PQLS5, and a general feedback form. Compare the results from pre-intervention to post-intervention and share the results with the appropriate stakeholders. Make any changes to the SMTP that were highlighted in the feedback forms.

Step Eight: After the program has been running for approximately one year, revise employee engagement, distribute the third survey package with the NSS and the PQLS5. This will allow the researcher to gauge the long-term effects of the program and make any necessary changes.

Design of Evaluation

This study was designed to implement an SMTP for critical care nurses working at Fiona Stanley Hospital. The chosen intervention was MBSR, as it is regarded as the most effective stress reduction intervention. The literature indicates that this intervention has resulted in significant improvements within a population of nurses (Slatyer et al., 2017). It was hypothesised that the eight-week MBSR intervention for critical care nurses at Fiona Stanley Hospital would result in lower levels of stress post-intervention, compared to the pre-intervention condition and the waitlist control group.

As the participants were aware of which condition they had been allocated, this study was a single-blind, quasi-experimental design. Further, there were three-time points in which the assessors were collecting data; therefore, this study also has a lagged-longitudinal element. There are two distinct groups for analysis: the MBSR group and the control condition. Both groups are to be assessed pre-intervention and Post-intervention at the eight-week mark. At one year, there was a final follow-up which enabled researchers to gain insight into the long-term impacts of this stress management intervention.

Data Analysis

The data collected from this study was cleaned before processing. Therefore, outliers were removed, and incomplete or missing data (due to attrition) was coded as missing. A Levene's test for equality of variance and Shapiro Wilk test of normality was used to ensure that the data would reflect valid findings. A mixed-model ANOVA was used to test the hypothesis, 'the MBSR intervention would result in lower levels of stress post-intervention, compared to both the pre-intervention condition, and the waitlist control group .' This analysis compared the two groups (MBSR and the waitlist control), pre- and post-intervention. A Bayesian statistic allowed the researchers to assess the likelihood of this finding.

Restrictions and Limitations

Although there are many benefits to implementing this SMTP, as demonstrated by, it does have some limitations. Firstly, the intervention was implemented within a single work setting. Implementing the intervention in only Fiona Stanley Hospital may not accurately represent the wider population, limiting the generalisability of the results. Further, there may be other environmental factors that are apparent within the workplace, which may skew the intervention results. Implementing an MBSR study within a variety of hospitals in the Western Australian regions would provide researchers with a more accurate representation of the effectiveness of this intervention. This approach would increase the scope of the gathered data.

Additionally, this implementation plan was subject to being affected by observer bias. The nurses receiving the intervention were aware that they were part of the intervention group, altering their perception of stress in their environment. Further, those in the waitlist control group were aware that they had not received the intervention and therefore may report more severe perceptions of workplace stress. This bias may skew the results, and therefore the intervention may be less effective than initially expected.

Finally, another restriction that may affect the implementation of the SMTP is the associated costs to implement the intervention. Implementing the intervention over the whole hospital or even branching out to other hospitals within Western Australia can be a costly endeavour. From start to finish, the financial and human resources required can add up quite quickly and be a high financial cost to the implementing organisation. However, the benefits of the intervention may reduce occupational-related stress helping improve the wellbeing and employee retention within the business creating a more profitable environment.

Conclusion

Individuals spend a significant amount of time at their workplaces and therefore can be significantly affected by workplace stress. Research has highlighted chronic stress's impact on the human body, often

leading to severe and costly health outcomes. This report outlined a possible Stress Management Training Program for critical care nurses working within Fiona Stanley Hospital as an individual-level intervention for nurses at high risk of workplace stress. This intervention is an educational, coping skills training course that may help nurses cope with high levels of chronic stress. It was hypothesised that following an eight-week course of MBSR, critical care nurses would report lowered levels of stress post-intervention, compared to pre-intervention and the waitlist control group.

References

Alkhawaldeh, J., Soh, K., Mukhtar, F., Peng, O., Alkhawaldeh, H., Al‐Amer, R., & Anshasi, H. (2020). Stress management training program for stress reduction and coping improvement in public health nurses: A randomised controlled trial. *Journal Of Advanced Nursing, 76*(11), 3123-3135. https://doi.org/10.1111/jan.14506

Bartlett, L., Martin, A., Neil, A., Memish, K., Otahal, P., Kilpatrick, M., & Sanderson, K. (2019). Supplemental Material for A Systematic Review and Meta-Analysis of Workplace Mindfulness Training Randomized Controlled Trials. *Journal Of Occupational Health Psychology, 24*(1), 108-126. https://doi.org/10.1037/ocp0000146.supp

Colodro-Conde, L., Couvy-Duchesne, B., Zhu, G., Coventry, W., Byrne, E., & Gordon, S. et al. (2017). A direct test of the diathesis–stress model for depression. *Molecular Psychiatry*, *23*(7), 1590-1596. https://doi.org/10.1038/mp.2017.130

Elliott, M., & Reuter, J. (2021). The Benefits and Challenges of Employment for Working Professionals Diagnosed with Mental Illness. *Community Mental Health Journal*. https://doi.org/10.1007/s10597-021-00866-x

Engel, B. (2017). *Mindfulness Based Stress Reduction Course Overview* [PDF]. Border Mindfulness. Retrieved 4 October 2021, from https://www.bordermindfulness.com/wp-content/uploads/2017/10/Border-Mindfulness-MBSR-Course-Overview-General.pdf.

Fiona Stanley Hospital. Fsh.health.wa.gov.au. (2021). Retrieved 3 October 2021, from https://www.fsh.health.wa.gov.au/About-us.

Geuens, N., Van Bogaert, P., & Franck, E. (2017). Vulnerability to burnout within the nursing workforce-The role of personality and interpersonal behaviour. *Journal Of Clinical Nursing, 26*(23-24), 4622-4633. https://doi.org/10.1111/jocn.13808

Holman, D., Johnson, S., & O'Connor, E. (2018). Stress management interventions: Improving subjective psychological wellbeing in the workplace. In E. Diener, S. Oishi, & L. Tay (Eds.), Handbook of wellbeing. Salt Lake City, UT: DEF Publishers. DOI:www.nobascholar.com

Karaca, A., & Şişman, N. (2019). Effects of a Stress Management Training Program With Mindfulness-Based Stress Reduction. *Journal Of Nursing Education, 58*(5), 273-280. https://doi.org/10.3928/01484834-20190422-05

Organisational and Individual Stress Management. SAMHSA - Substance Abuse and Mental Health Services Administration. (2021). Retrieved 3 October 2021, from https://www.samhsa.gov/dtac/disaster-response-template-toolkit/organizational-individual-stress-management.

Pragholapati, A., Yosef, I., & Soemantri, I. (2020). The Correlation of Resilience With Nurses Work Stress In Emergency Unit Rumah Sakit Al Islam (RSAI) Bandung. Sorum. Heal. Sci. J, 1(1), 9-18. https://www.usnsj.com/index.php/shsj/article/view/999

Schmidt, B., Schneider, M., Seeger, P., van Vianen, A., Loerbroks, A., & Herr, R. (2019). A Comparison of Job Stress Models. Journal Of Occupational & Environmental Medicine, 61(7), 535-544. https://doi.org/10.1097/jom.0000000000001582

Slatyer, S., Craigie, M., Heritage, B., Davis, S., & Rees, C. (2017). Evaluating the Effectiveness of a Brief Mindful Self-Care and Resiliency (MSCR) Intervention for Nurses: a Controlled Trial. *Mindfulness*, *9*(2), 534-546. https://doi.org/10.1007/s12671-017-0795-x

Vonderlin, R., Biermann, M., Bohus, M., & Lyssenko, L. (2020). Mindfulness-Based Programs in the Workplace: a Meta-Analysis of Randomized Controlled Trials. *Mindfulness*, *11*(7), 1579-1598. https://doi.org/10.1007/s12671-020-01328-3

WorkCover Tasmania. (2012). Your simple guide to workplace health and wellbeing. https://stors.tas.gov.au/922491$stream

Yu, F., Raphael, D., Mackay, L., Smith, M., & King, A. (2019). Personal and work-related factors associated with nurse resilience: A systematic review. *International Journal Of Nursing Studies*, *93*, 129-140. https://doi.org/10.1016/j.ijnurstu.2019.02.014

Appendix A

Sample of Mindfulness-Based Stress Reduction Intervention (Engel, 2017). Every week, participants take part in two one-hour sessions. The initial session, week five (the halfway point), and week eight (the final session) all include a telehealth session and pre-recorded content for participants to engage in at their convenience. All following sessions were administered through pre-recorded videos.

Week 1	Telehealth session: Outline the link between the mind and body and the mind's impact on the body. Psychoeducation surrounding self-regulation, diet, mindful breathing, and a short body scan exercise. Pre-recorded: Guided meditation.
Week 2	Mindfulness training and skill development. Psychoeducation regarding perception compared to reality. Recommendation to engage in daily body scan exercise and to begin integrating mindfulness into their daily lives.
Week 3	Mindful yoga session ending with the body scan exercise. Assigned 90-minute sitting or walking meditation. Participants are requested to begin keeping a journal regarding the challenges, insights, and integration of mindfulness into their daily lives.
Week 4	Guided mindful yoga exercise, body scan, and sitting meditation. Participants are invited to reflect on the expansion of the field of their awareness.
Week 5	Telehealth session: Psychoeducation regarding the progress that the participants have made. Participants are invited to reflect on their experiences to date, including anything they have noticed regarding their tolerance to and recovery from stressful events. Discussion around using awareness to interrupt conditioned thoughts and behaviours, and redirect them to choose more effective responses. Pre-recorded: Guided mindful yoga exercise, body scan, and sitting meditation.

Week 6	Psychoeducation regarding coping strategies and resilience. The theory surrounding these strategies is then directly linked to MBSR and the skills being practiced over the previous weeks. Participants are invited to reflect upon and begin experimenting with positive ways to communicate with others about stress. They are asked to make note of who they can speak to in their workplace, and social circles to help them feel supported.
Week 7	Participants are asked to begin experimenting with different mindfulness practices that suit their unique circumstances. They are then to note these down to discuss with the group in the final session. Participants are encouraged to maintain 45 minutes of daily, unguided practice (15 minutes of yoga, 10 minutes body scan, and 20 minutes of seated meditation).
Week 8	Telehealth session: Participants are encouraged to reflect on their experiences throughout the program and share any challenges, insights, and how they have integrated mindfulness practices into their daily lives with the group. During the session participants are asked to create a resource that they can use to help them stay on track once the intervention has ended. The resource should include possible workplace and social supports, daily mindfulness strategies, and setting goals for their future practice.