Breaking down barriers to help-seeking: preparing first responders’ families for psychological first aid

Michelle O’Toole, Claire Mulhall and Walter Eppich

RCSI SIM Centre for Simulation Education and Research, RCSI University of Medicine and Health Sciences, Dublin, Ireland

ABSTRACT

Background: First responders regularly encounter both operational stressors and potentially traumatic events, increasing their risk of mental health problems (Declercq et al., 2011). Due to unique cultural complexities, they turn mostly to peers for early psychosocial support (Isaac & Buchanan, 2021). However, peer support and/or mental health assistance may not always be available or easy to access and first responders’ mental health suffers.

Objective: We need more accessible routes to crisis intervention to ensure first responder resilience and well-being, so they may continue to function in the service of public safety. Family members and close friends may be ideally placed to provide this immediate care. This article outlines the protective role of social support as an early intervention strategy to mitigate the effects of first responder trauma, exploring the potential opportunity for family members and friends to play an increasingly supportive role in their loved one’s well-being. This paper serves as a call to action for practical educational interventions that will prepare family members for these critical conversations.

Conclusion: We see potential in combining early intervention theory, psychoeducation, and a strengths-based gender specific positive psychology approach. Further study should investigate how best to help first responders break down barriers to support, by bolstering their existing social supports and ultimately reducing the stigma associated with experiencing traumatic stress.

Derribando las barreras para la búsqueda de ayuda: Preparando a las familias de los equipos de primera respuesta para los primeros auxilios psicológicos

Antecedentes: Los equipos de primera respuesta se encuentran regularmente con estresores operacionales y eventos potencialmente traumáticos, aumentando su riesgo de problemas de salud mental. Debido a las complejidades culturales únicas, ellos se dirigen a sus pares por apoyo psicosocial temprano. Sin embargo, el apoyo de pares y/o la asistencia de salud mental puede que no esté siempre disponible o sea de fácil acceso y la salud mental de los equipos de primera respuesta se resiente.

Objetivo: Se necesitan rutas más accesibles para la intervención en crisis para asegurar la resiliencia y el bienestar de los equipos de primera respuesta, entonces ellos podrían continuar funcionando en el servicio de la seguridad pública. Los familiares y los amigos cercanos podrían estar en posición de otorgar este apoyo inmediato. Este artículo presenta el rol protector del apoyo social como una estrategia de intervención temprana para mitigar los efectos del trauma de los equipos de primera respuesta, explorando la oportunidad potencial de los familiares y amigos para jugar un rol creciente de apoyo en el bienestar de sus seres queridos. Este artículo sirve como un llamado a la acción para intervenciones educacionales prácticas que prepararan a los familiares para estas conversaciones críticas.

Conclusión: Vemos un potencial en combinar las perspectivas de la teoría de intervención temprana, psicoeducación, y psicología positiva específica de género basada en las fortalezas. Las investigaciones futuras deberían investigar cómo se puede ayudar de mejor forma los equipos de primera respuesta para derramar las barreras al apoyo, fortaleciendo sus redes sociales actuales y así reducir el estigma asociado con la experiencia de estrés traumático.

CONTACT Michelle O’Toole michellelotoole@rcsi.com RCSI SIM Centre for Simulation Education and Research, RCSI University of Medicine and Health Sciences, St Stephen’s Green, Dublin, Ireland

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.
1. Introduction

First responders regularly encounter both operational stressors and potentially traumatic events, increasing their risk of mental health issues (Declercq et al., 2011; Johnson et al., 2020). Firefighters and Paramedics are ‘hidden victims’ in trauma, while also being tertiary victims who care for primary and secondary victims (DeSoir, 2012). Many workplace-based support programmes exist to mitigate or prevent traumatic stress and/or mental ill-health for this group. These programmes are mostly based on psychoeducation and crisis intervention, originally adapted from military psychiatry (Artiss, 1963). Due to unique cultural complexities, first responders mostly turn to peers to provide such support (Isaac & Buchanan, 2021). Indeed, first responders report their preference for informal discussion as a post-incident intervention, across all levels of situation intensity (Gulliver et al., 2019; Jeannette & Scoboria, 2008). However, peer support and/or mental health assistance may not always be available or easy to access and first responders’ mental health suffers. We need more accessible routes to crisis intervention to ensure first responder resilience and wellbeing so they may continue to function in the service of public safety.

Unfortunately, global efforts have been insufficient to reduce the stigma associated with help-seeking behaviours for mental health concerns; significant cultural barriers remain in male-dominated emergency services professions (World Health Organisation, 2017; McCreary, 2019; Seaton, Bottrфф, Oliffe, Medhurst, & DeLeenheer, 2019). More first responders suffer with depression, PTSD, substance abuse and suicidal thoughts/behaviour than ever before (Lewis-Schroeder et al., 2018; Stanley, Hom, & Joiner, 2016). For this reason, the field urgently needs further research and training to identify effective strategies to break down these barriers. Plasse highlights the potential value in the care provided by someone familiar (Plasse, 2020). Traditionally in emergency services, this social support was provided by co-workers or managers. Based on these findings, we pose an additional accessible option: Are family members and close friends ideally placed to provide this immediate care?

This article has two purposes: (a) to outline the protective role of social support as an early intervention strategy to mitigate the effects of first responder trauma, and (b) to explore the potential opportunity for family members and friends to play an increasingly supportive role in their loved one’s wellbeing, in conjunction with established occupational support services.

2. The value of early intervention and social support

Early intervention techniques are employed by many first responder and military organisations to help personnel return to duty efficiently following exposure to a traumatic event. The function of early intervention is not to prevent or treat Post Traumatic Stress Disorder (PTSD), but to provide support aimed to increase social cohesion, reduce absenteeism and unhelpful stress responses and increase work performance (Creamer et al., 2012; Regel & Dyregrov, 2012; Ruck, Bowes, & Tehrani, 2013). The National Institute for Health and Care Excellence reported that it was good practice to provide practical and social support and guidance to those affected by traumatic incidents and that trauma exposed organisations such as the emergency services should continue to provide this based on an organisational approach (National Institute for Health and Care Excellence Guideline 116, 2018):

A little help rationally directed and purposely focused at a strategic time, is more effective than extensive help given at a period of less emotional accessibility. (Rapoport, 1965)

Richins et al. warn that early interventions should not be seen as ‘a one size fits all’ solution and should always follow evidence-based criteria to be effective (Richins et al., 2020). Early interventions support emergency responders following exposure to a trauma when these are tailored to the needs of the population, are supported by the host organisation, harness existing social cohesion and peer support processes within a team or unit’ (Richins et al., 2020).

Social support alone mitigates post-traumatic stress, increases positive mental wellbeing in the general population (Guilaran, De Terte, Kaniasty, & Stephens, 2018; Regel & Dyregrov, 2012) and has a protective effect on the mental health of first responders (Pietrantoni & Prati, 2008). Social support can be defined as ‘the emotional or
practical assistance that one receives from their social groups, such as family or friends, and colleagues, during times of crisis and distress’ (Kshtriya, Krobezak, Popok, Lawrence, & Lowe, 2020). Whereas the lack of social support likely contributes to PTSD after traumatic incidents, receiving social support predicts wellbeing and post-traumatic growth (Chauvistra & Cloitre, 2008). Thus, social support is a multi-dimensional construct, influenced by the culture and context of both providers and receivers; therefore, we must understand its nuances (Fogarty et al., 2021).

2.1. Specific psychosocial support interventions

Fortunately, many first responder organisations provide access to support services with the intention of mitigating potential acute stress reactions and/or post-traumatic stress. Critical Incident Stress Management (CISM) is one of the best known of such programmes. Designed by Dr. Jeffrey Mitchell (Mitchell, 2006), this multicomponent suite of interventions reduces the after-effects of critical incidents by facilitating early access to crisis intervention. Regel and Dyregrov (Regel & Dyregrov, 2012) further describe CISM, designed to reduce harmful reactions, as an early intervention peer support programme that improves team cohesion and identifies those needing further support. Psychological First Aid (PFA) is another type of early psychosocial intervention. The World Health Organisation (WHO) defines PFA as “a humane, supportive response to a fellow human being who is suffering and who may need support” and includes simple interventions such as listening, providing information, comfort, and practical support to address basic needs (van Ommeren, Snider, & Schafer, 2011). Currently, PFA represents the ‘first, and most favoured, early intervention approach’ during or immediately after a crisis, according to the National Institute on Mental Health (Shultz & Forbes, 2013). Unfortunately, those who need support often fail to access available resources. In emergency services professions, this social support was traditionally provided by co-workers or managers, but the practice of PFA is not restricted to mental health professionals or even peers (van Ommeren et al., 2011). With this in mind, we propose an additional accessible option: family members and close friends of first responders.

2.2. The potential of enhanced support from family members

Immediate, focused social support for first responders by family members currently remains underutilised, despite early evidence of its effectiveness in the military veteran population. Langsley et al. performed a randomised control trial of 300 patients to test inpatient treatment versus family crisis intervention. Results indicated family crisis intervention was superior to inpatient treatment for preventing subsequent psychiatric hospitalisations (Langsley, Machotka, & Flomenhaft, 1971). Further, Solomon & Benbenishty demonstrated that three core principles of crisis intervention were positively related to return to duty (Solomon & Benbenishty, 1986). These principles include: proximity, immediacy and expectancy. Solomon et al. conducted a 20-year longitudinal study with Lebanese veterans who experienced combat stress. Those who had received frontline interventions reported lower psychiatric and post-traumatic symptoms and increased social interactions than those who did not receive crisis intervention (Solomon & Benbenishty, 1986).

More recent preliminary unpublished work has shown that first responders turn to spouses or family members with their work-related stress concerns (Kerrane, O’Grady, Doyle, & O’Toole, 2017). Of note, none of the participants chose ‘Officer in Charge’ or ‘Mental Health Professional’ when asked about their preferred source of support; 49% of respondents indicated their spouse, 35% selected family member/friend and 16% reported that they would talk to a colleague. This finding aligns with up-to-date reports stating that rank and duration of service both impacts preferred sources of support, with firefighters more likely to seek support from spouses, family members and friends, whereas officers and those with more years in service are more inclined to engage in professional support services over peer support (Fogarty et al., 2021; Gulliver et al., 2019). Perhaps this discrepancy arises from perceptions of leadership in male-dominated work environments, the masculine tendency to be self-reliant and the associated stigma with seeking help.

Despite promising results shown by these studies, family members have not been fully considered as a potential means of providing focused practical support to their loved ones in emergency services, in line with the three crisis intervention principles. We propose that with appropriate preparation and training for family members, many of these important principles of PFA may translate to enhanced support for first responders. Family members are in close proximity to the trauma, immediately available to their first responder and can learn to identify those behavioural reactions that may be linked to traumatic events, rather than pathology.

3. The role of gender in help-seeking

The WHO recognises that gender plays an important role in health care, with men often delaying seeking
healthcare and even refusing to comply with recommended treatment (World Health Organisation, 2017). Suicide rates are higher in men than women, with increased vulnerability in male subgroups, such as sexual or ethnic minorities, as well as military, veteran and first responder occupations among others (Oliffe et al., 2021). Men’s mental health is a key issue for workplaces and society in general, yet gender-sensitive mental health promotion approaches need further optimisation in male-dominated professions (McCreary, 2019; Seaton et al., 2019).

‘Can’t show weakness’, ‘needing cultural change’ and ‘family burden’ are among the themes of barriers to help-seeking described among first responders (Jones, Agud, & McSweeney, 2020). These common issues permeate male dominated emergency services professions, and a gendered lens is required to tackle them. Masculinity culture diminishes help-seeking behaviours, reinforces maladaptive coping mechanisms, and alters the perception of available social support (Jones et al., 2020). Adhering to social status norms, such as constant displays of strength and toughness, self-reliance and stoicism are positively associated with developing mental health conditions such as PTSD (Jakubowski & Sitko-Dominik, 2021) and depression (Addis & Hoffman, 2017; Roche et al., 2016). Men in male dominated professions show significantly more anxiety and depressive symptoms (Seaton et al., 2019), potentially reinforced by a stereotypical firefighter culture, in which help-seeking is perceived as a feminine trait (Jakubowski & Sitko-Dominik, 2021). Additionally, these cultural norms sometimes foster toxic masculinity and reduce psychological safety in the workplace, particularly if one is not considered to be ‘in’ the team. (Mroz & Quinn, 2013)

Despite much research on the impact of masculinity culture in workplaces, little has been written about how to practically promote men’s mental health (McCreary, 2019; Robertson et al., 2015) and the benefits of these masculinity contests (Seaton et al., 2019). For these reasons, we must find ways to nurture the positive elements of masculinity culture (e.g. group comradery) using a strengths-based approach (Langsley et al., 1971; Seaton et al., 2019). Strength-based approaches comprise a pillar of positive psychology in which positive organisational scholarship is defined as ‘the dynamics in organisations that lead to the development of human strength, foster resiliency in individuals … and cultivate extraordinary individual and organisational performance’ (Mroz & Quinn, 2013). Working on strengths helps us to bring our best selves to work and to learn where we add value to a team, as opposed to merely striving for competence when we focus on weaknesses.

Positive psychology, positive masculinity (PPPM) is an emerging theoretical perspective. In PPPM, positive masculinity is described as ‘pro-social attitudes, beliefs and behaviours of boys and men that produce positive consequences for self and others’ (Reid, O’Neill, & Blair-Loy, 2018). Healthy characteristics, identified as human strengths (not exclusive to men), include male ways of caring; male self-reliance; men’s respect for women; male courage, daring, and risk-taking; men’s use of humour; and male heroism. Accentuating these strengths has a positive impact on men’s emotional expression, improved employment and educational retention rates, improved attitudes towards treatment and increased involvement in family life (Kiselica, Benton-Wright, & Englar-Carlson, 2016).

Women working in male-dominated professions are more likely to acclimatise to the masculinity culture. This acclimatisation has a number of potentially positive and negative impacts. For example, these women experience less traumatic distress than civilian females, however, they are at risk for experiencing certain symptoms that are more commonly associated with males (e.g. somatisation). Further, maladaptive coping mechanisms, such as excessive alcohol consumption to deal with traumatic symptoms, are common in both male and females across the emergency services professions (Lewis-Schroeder et al., 2018). All providers of psychosocial interventions, such as PFA, must be explicitly aware of these gender-based intricacies and apply positive gender-sensitive training approaches toward mental health promotion (McCreary, 2019; Robertson et al., 2015). Therefore, pre-incident education for spouses and family members of first responders must include this essential gender specific lens.

4. Preparing family members and spouses to support their first responder

Psychoeducation helps those dealing with acute stressors to increase their understanding of stress responses, coping strategies and reduces the immediate impact of a traumatic event (Phoenix, 2007). Peers have traditionally provided this education to first responder colleagues as part of a suite of peer support interventions following a traumatic incident or as part of a basic pre-incident education programme before they begin operational duties. However, psychoeducation training for family members remains inconsistent across professions and continents (McCreary, 2019), despite its acknowledgement as a core element of many early intervention programmes (Mitchell, 2006). Following traumatic incidents, spouses or family members often notice changes in their loved one’s behaviour first, and thus must be trained to recognise and respond accordingly. Armed with such training, friends and family may also feel empowered to provide concrete support rather than standing by, unable to help.
Training family members to recognise common stress reactions following traumatic incidents leads to more honest and open communication and enhanced awareness of the pressures their first responder faces at work (Roth & Moore, 2009). When spouses/family members understand the cause of their first responders’ behaviour, they are more likely to give them the required time and space to speak when they are ready (Fogarty et al., 2021). Paramedics with high levels of perceived family support are less inclined to take sick leave due to mental health concerns than those without family support (Regehr, Goldberg, & Hughes, 2002).

Traditional educational approaches such as lectures, watching videos, websites and online applications (apps) etc. may offer some benefit, but based on current education and training literature, are wholly insufficient (McCreary, 2019). Interactive sessions should integrate didactic teaching of crisis intervention principles with small group PFA activities. Such immersive learning environments would create opportunities to bridge the gap between gaining essential psychoeducation knowledge about signs and symptoms of traumatic stress and applying supportive conversation interventions in a safe learning environment. One such programme called RAPID-PFA (Everly, McCabe, Semon, Thompson, & Links, 2014) reported that the integration of cognitive and skills-based teaching increased knowledge, improved self-efficacy in applying the techniques and positively influenced personal resilience among non-mental health professionals (Lee, You, Choi, Youn, & Shin, 2017). Thus, we need more opportunities for immersive experiential education to help prepare spouses, family members and friends to broach difficult topics and start these critical wellbeing conversations with their first responders.

Simulation-based education is one specific strategy that provides opportunities to practice specific conversations comprising PFA and crisis intervention. Simulation is an established methodology for representing real-life situations for education and training purposes (Lioce et al., 2020) and has been successful in training both technical and non-technical skills within healthcare and other professional training sectors (McGaghie, Issenberg, Petrusa, & Scalese, 2010; Motola, Devine, Chung, Sullivan, & Issenberg, 2013). Simulated Participants (SPs) are defined as ‘individuals who are trained to portray patients (their relatives and healthcare professionals) and provide learners with feedback’ (Nestel, Burn, Pritchard, Glastonbury, & Tabak, 2011). Practising with SPs is a proven method to support learners in gaining key skills in communication (Cleland, Abe, & Rethans, 2009). For example: high levels of skill acquisition resulted when medical students engaged in a deliberate practice session with SPs who gave focused feedback on students’ foundational practice of breaking bad news (Vermyle, Wayne, Cohen, McGaghie, & Wood, 2020).

The effectiveness of simulation in psychiatry has previously been examined and provides a safe learning space to ‘put oneself in someone else’s shoes’ (McNaughton, Ravitz, Wadell, & Hodges, 2008). However, simulation for difficult conversations should not be undertaken without first considering the psychological safety of those engaging in the immersive learning experience (Rudolph, Raemer, & Simon, 2014). Learners need to feel safe to push themselves to the edge of their ability, without fear of humiliation if they make a mistake, in order to achieve a positive learning experience. Engagement is encouraged even prior to the simulation when the facilitator clarifies the course objectives; ensures confidentiality; outlines roles and expectations; establishes a “fiction contract” with participants and commits to respecting the learners perspective (Rudolph, Simon, Dufresne, & Raemer, 2006). After the simulation, debriefing allows learners to reflect critically on their experience and consider aspects that worked well and those that they might change. Many debriefing frameworks exist to help the facilitator guide the learning discussion and often, an advocacy-inquiry approach is used to note observations and invite learners to share their perspectives on their actions (Eppich & Cheng, 2015; Rudolph et al., 2006). Using these well-established simulation-based learning approaches could provide an ideal innovative way to train first responders and their family members to begin these difficult conversations.

4.1. Supporting the supporters

In other sectors, providing this supportive caring role for a loved one is referred to as ‘informal care-giving’ and while it reduces mental health problems in those being cared for, little is known about its impact on those providing the care, such as our emergency services families (McKeon, Wells, Steel, Moseley, & Rosenbaum, 2021). Undoubtedly, occupational stressors can spill over into family life with the pressures of shift work, the uncertainty that arises from responding to unpredictable emergencies, and maladaptive coping mechanisms all cited as having negative impacts on emergency service worker relationships (Jakubowski & Sitko-Dominik, 2021; Roth & Moore, 2009; McKeon et al., 2021). If these issues are not addressed, family members run the risk of experiencing higher rates of psychological distress, decreased quality of life and sedentary behaviour, potentially leading to chronic physical health conditions e.g. diabetes, heart disease etc. (Aked, Marks, Cordon, & Thompson, 2018).

Importantly, family members and spouses who choose to provide this support must attend to their
own self-care, cultivating their own friendships and peer support networks (Roth & Moore, 2009). Close contacts within the first responder world (i.e. other first responder spouses with similar familial experiences) provide a homogenous group for mutual collective venting and support. Research shows that connecting with others is one of the core pillars of wellbeing and initiatives such as Virtual Connect Cafes (Aked et al., 2018) offer an ideal space to connect with the self, others and a like-minded community. We implore all providers of psychosocial interventions for family members of first responders to ensure they build networks of support for the supporters, in order to bolster social support and decrease the potential for secondary stress.

5. Conclusion

We highlight the potential benefit of early, targeted support by close friends and family to impact first responder responses to the traumatic event. We view this paper as a call to action to develop educational interventions to prepare family members to recognise when their loved one is in distress and arm them with practical tools to help. We need rigorous research that evaluates the impact of such interventions. By combining early intervention theory, psychoeducation and a strengths-based gender specific approach to positive psychology, future study will help first responders break down barriers to support by bolstering their existing social supports and ultimately reducing the stigma associated with experiencing traumatic stress. We anticipate that friends and family members will receive satisfaction in helping their first responder, family units will benefit from shared increased mental wellbeing and organisations will likely benefit from a healthier workforce.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Movember under Grant number P-000231.

Data availability statement

Data sharing is not applicable to this article as no new data were created or analysed in this study.

ORCID

Michelle O’Toole http://orcid.org/0000-0001-9193-5933
Claire Mulhall http://orcid.org/0000-0002-6155-0829
Walter Eppich http://orcid.org/0000-0002-4127-2825

References

Addis, M. E., & Hoffman, E. (2017). Men’s depression and help-seeking through the lenses of gender. In R. F. Levant, & Y. J. Wong (Eds.), The Psychology of men and Masculinities (pp. 171–196). Washington: American Psychological Association. doi:10.1037/0000023-007.

Aked, J., Marks, N., Cordon, C., & Thompson, S. (2018). Five Ways to Wellbeing: A report presented to the Foresight Project on communicating the evidence base for improving people’s well-being. London: New Economics Foundation. https://neweconomics.org/uploads/files/five-ways-to-wellbeing-1.pdf.

Artiss, K. (1963). Human behaviour under stress: From combat to social psychiatry. Military Medicine, 128, 1011–1015. PMID: 14505663.

Chavastre, A., & Cloître, M. (2008). Social bonds and post-traumatic stress disorder. Annual of Psychology, 59, 301–328. doi:10.1146/annurev.psych.58.110405.085650

Cleland, J. A., Abe, K., & Rethans, J. J. (2009). The use of simulated patients in medical education: AMEE Guide No 42. Medical Teacher, 31(6), 477–486. doi:10.1080/01421590903002821

Cremmer, M., Varker, T., Bisson, J., Darte, K., Greenberg, N., Lau, W., … Forbes, D. (2012). Guidelines for peer support in high-risk organizations: An international consensus study using the delphi method. Journal of Traumatic Stress, 25, 134–141. doi:10.1002/jts.21685

Declercq, F., Meganck, R., Deheegher, J., & Van Hoorde, H. (2011). Frequency of and subjective response to critical incidents in the prediction of PTSD in emergency personnel. Journal of Traumatic Stress, 24, 133–136. doi:10.1002/jts.20609

DeSoir, E. (2012). The Management of emotionally disturbing interventions in fire and rescue services: Psychological triage as a framework for acute support. In R. Hughes, A. Kinder, & C. Cooper (Eds.), International Handbook of Workplace Trauma Support (pp. 377–379). West Sussex: Wiley-Blackwell.

Eppich, W., & Cheng, A. (2015). Promoting Excellence and Resilience for First Responder Spouses: The Johns Hopkins RAPID-FFA. Journal of Public Health Management and Practice, 20, S24–S29. doi:10.1097/PHH.0000000000000072. PMID: 25710312.

Everly, G. Jr, McCabe, O. L., Lau, W., Steel, Z., Smith, P. B., Boydell, K. M., McKeon, G., & Rosenbaum, S. (2021). Trauma and mental health awareness in emergency service workers: A qualitative evaluation of the behind the seen education workshops. International Journal of Environmental Research and Public Health, 18(9), 4418. doi:10.3390/ijerph18094418

Guilaran, J., De Terte, I., Kaniasty, K., & Stephens, C. (2018). Psychological outcomes in disaster responders: A systematic review and meta-analysis on the effect of social support. International Journal of Disaster Risk Science, 9, 344–358. doi:10.1007/s13753-018-0184-7

Gulliver, S. B., Pennington, M. L., Torres, V. A., Steffen, L. E., Mardikar, A., Leto, F., … Kimbrel, N. A. (2019). Behavioral health programs in fire service: Surveying
access and preferences. *Psychological Services*, 16(2), 340–345. doi:10.1037/serv0000222

Isaac, G., & Buchanan, M. (2021). Extinguishing stigma among firefighters: An examination of stress, social support, and help-seeking attitudes. *Psychology (Savannah, GA)*, 12, 349–373. doi:10.4236/psych.2021.123023

Jakowski, T. D., & Sitko-Dominik, M. M. (2021). The impact of the traditional male role norms on the post-traumatic stress disorder among Polish male firefighters. *PloS ONE*, 16(10), e0259025. doi:10.1371/journal.pone.0259025

Jeanette, J. M., & Scoboria, A. (2008). Firefighter preferences regarding post-incident intervention. *Work and Stress*, 22, 314–326. doi:10.1080/02678370802564231

Johnson, C. C., Vega, L., Kohalmi, A. L., Roth, J. C., Howell, B. R., & Van Hasselt, V. B. (2020). Enhancing mental health treatment for the firefighter population: Understanding fire culture, treatment barriers, practice implications, and research directions. *Professional Psychology: Research and Practice*, 51(3), 304–311. doi:10.1037/pro0000266

Jones, S., Agud, K., & McSweeney, J. (2020). Barriers and facilitators to seeking mental health care among first responders: “removing the darkness.” *Journal of the American Psychiatric Nurses Association*, 26(1), 43–54. doi:10.1177/1078390319871997. Epub 2019 Sep 11. PMID: 31509058.

Kirrane, M., O’Grady, A., Doyle, B., & O’Toule, M. (2017). A longitudinal study of the management of Critical Incident Stress in an Irish Fire based EMS organisation [Unpublished report]. Internal report.

Kirkbride, M. S., Benton-Wright, S., & Englar-Carlson, M. (2016). Accentuating positive masculinity: A new foundation for the psychology of boys, men, and masculinity. In Y. J. Wong, & S. R. Wester (Eds.), *APA Handbook of men and Masculinities* (pp. 123–143). Washington: American Psychological Association. doi:10.1037/14594-006.

Kahriya, S., Koberzak, H., Popok, P., Lawrence, J., & Lowe, S. (2020). Social support as a mediator of occupational stressors and mental health outcomes in first responders. *Journal of Community Psychology*, 48, 2252–2263. doi:10.1002/jcop.22403

Langley, D., Machotka, P., & Flomenhaft, K. (1971). Avoiding mental hospital admission: A follow-up study. *American Journal of Psychiatry*, 127, 1391–1394. doi:10.1176/ajp.127.10.1391

Lee, J. S., You, S., Choi, Y. K., Youn, H. Y., & Shin, H. S. (2017). A preliminary evaluation of the training effects of a didactic and simulation-based psychological first aid program in students and school counselors in South Korea. *PloS One*, 12(7), e0181271. doi:10.1371/journal.pone.0181271

Lewis-Schroeder, N. F., Kieran, K., Murphy, B. L., Wolff, J. D., Robinson, M. A., & Kaufman, M. L. (2018). Conceptualization, assessment, and treatment of traumatic stress in first responders: A review of critical issues. *Harvard Review of Psychiatry*, 26(4), 216–227. doi:10.1097/HRP.0000000000000176

McCreary, D. R. (2019). Veteran and first responder mental ill health and suicide prevention: A scoping review of prevention and early intervention programs used in Canada, Australia, New Zealand, Ireland, and the United Kingdom. British Columbia, Canada: Donald McCreary Scientific Consulting. https://uk.movember.com/uploads/files/2020/VFR%20Grants/Movember%20Executive%20Summary%20-%20Veteran%20 and%20First%20Responder %20Scoping%20Review.pdf.

McGaghie, W. C., Issenberg, S. B., Petrusa, E. R., & Scales, R. J. (2010). A critical review of simulation-based medical education research: 2003–2009. *Medical Education*, 44(1), 50–63.

McKeon, G., Wells, R., Steel, Z., Moseley, V., & Rosenbaum, S. (2021). Self-Reported physical and mental health of informal caregivers of emergency service workers. *Journal of Loss and Trauma*, 26(6), 507–518. doi:10.1080/15325024.2020.1845020

McNaughton, N., Ravitz, P., Wadell, A., & Hodges, B. D. (2008). Psychiatric education and simulation: A review of the literature. *Canadian Journal of Psychiatry*, 53(2), 85–93. doi:10.1177/070673470805300203. PMID:18357926.

Mitchell, J. (2006). Critical Incident Stress Management (CISM). Ellicott City, MD: Chevron Publishing.

Motola, I., Devine, L. A., Chung, H. S., Sullivan, J. E., & Issenben, S. B. (2013). Simulation in healthcare education: A best evidence practical guide. AMEE Guide No. 82. *Medical Teacher*, 35(10), e1511–e1530. doi:10.3109/0142159X.2013.818632

Mroz, D., & Quinn, S. (2013). Positive organizational scholarship leaps into the world of work. In P. A. Linley, S. Harrington, & N. Garcea (Eds.), *The Oxford Handbook of Positive Psychology and Work* (pp. 251–254). New York: Oxford University Press.

National Institute for Health and Care Excellence Guideline 116. (2018). Post-traumatic Stress Disorder. Retrieved 10 November 2021, from https://www.nice.org.uk/guidance/ng116.

Nestel, D., Burn, C. L., Pritchard, S. A., Glastonbury, R., & Tabak, D. (2011). The use of simulated patients in medical education: Guide supplement 42.1 – viewpoint. *Medical Teacher*, 33(12), 1027–1029. doi:10.3109/0142159X.2011.956950

Oliffe, J. L., Kelly, M. T., Montaner, G. G., Links, P. S., Kealy, D., & Ogrodniczuk, J. S. (2021). Segmenting or summing the parts? A scoping review of male suicide research in Canada. *The Canadian Journal of Psychiatry*, 66(5), 433–445. doi:10.1177/07067437211000631

Phoenix, B. J. (2007). Psychocducation for survivors of trauma. *Perspectives in Psychiatric Care*, 43(3), 123–131. doi:10.1111/j.1744-6163.2007.00121.x

Pietrantoni, L., & Prati, G. (2008). Resilience among first responders. *African Health Sciences, 8*(Suppl 1), S14–S20. doi:10.4314/AHS.V8I3.7086

Plass, M. J. (2020). Psychosocial support for providers working high risk exposure settings during a pandemic: A critical discussion. *Nursing Inquiry*, doi:10.1111/nin.12399.

Rapoport, L. (1965). The state of crisis. In H. Parad (Ed.), *Crisis Intervention* (pp. 30–38). New York: Family Service Association of America.

Regehr, C., Goldberg, G., & Hughes, J. (2002). Exposure to human tragedy, empathy, and trauma in ambulance paramedics. *American Journal of Orthopsychiatry*, 72(4), 505–513. doi:10.1002/0002-9432.72.4.505

Regel, S., & Dyregrov, A. (2012). Commonalities and new directions in post trauma support interventions: From pathology to the promotion of post-traumatic growth. In R. Hughes, A. Kinder, & C. Cooper (Eds.), *International Handbook of Workplace Trauma Support* (pp. 48–67). West Sussex: Wiley-Blackwell.

Reid, E. M., O’Neill, O. A., & Blair-Loy, M. (2018). Masculinity in male-dominated occupations: How teams, time, and
tasks shape masculinity contests. *Journal of Social Issues, 74* (3), 579–606. doi:10.1111/josi.12285

Richins, M. T., Gauntlett, L., Tehrani, N., Hesketh, I., Weston, D., Carter, H., & Amlôt, R. (2020). Early post-trauma interventions in organizations: A scoping review. *Frontiers in Psychology, 11*, 1176. doi:10.3389/fpsyg.2020.01176

Robertson, S., White, A., Gough, B., Robinson, R., Seims, A., Raine, G., & Hanna, E. (2015). Promoting mental health and wellbeing with men and boys: what works? Project Report. Centre for Men’s Health, Leeds Beckett University, Leeds. doi:10.13140/RG.2.1.2669.2967.

Roche, A. M., Pidd, K., Fischer, J. A., Lee, N., Scarfe, A., & Kostadinov, V. (2016). Men, work, and mental health: A systematic review of depression in male-dominated industries and occupations. *Safety and Health at Work, 7*(4), 268–283. doi:10.1016/j.shaw.2016.04.005

Roth, S. G., & Moore, C. D. (2009). Work-family fit: The impact of emergency medical services work on the family system. *Prehospital Emergency Care, 13*(4), 462–468. doi:10.1080/10903120903144791

Ruck, S., Bowes, N., & Tehrani, N. (2013). Evaluating trauma debriefing within the UK prison service. *Journal of Forensic Practice*, doi:10.1108/JFP-09-2012-0018

Rudolph, J. W., Raemer, D. B., & Simon, R. E. (2014). Establishing a safe container for learning in simulation, simulation in healthcare. *Journal of the Society for Simulation in Healthcare, 9*(6), 339–349. doi:10.1097/SIH.0000000000000047.

Rudolph, J. W., Simon, R., Dufresne, R. L., & Raemer, D. B. (2006). There’s no such thing as “nonjudgmental” debriefing: A theory and method for debriefing with good judgment. *Simulation in Healthcare, 1*(1), 49–55. doi:10.1097/01266021-200600110-00006. PMID: 1908574.

Seaton, C. L., Bottorff, J. L., Oliffe, J. L., Medhurst, K., & DeLeenheer, D. (2019). Mental health promotion in male-dominated workplaces: Perspectives of male employees and workplace representatives. *Psychology of Men & Masculinities, 20*(4), 541–552. doi:10.1037/ men0000182

Shultz, J. M., & Forbes, D. (2013). Psychological first Aid. *Disaster Health, 2*(1), 3–12. doi:10.4161/dish.26006

Solomon, Z., & Benbenishty, R. (1986). The role of proximity, immediacy, and expectancy in front-line treatment of combat stress reaction among Israelis in the Lebanon War. *American Journal of Psychiatry, 143*, 613–617. doi:10.1176/ajp.143.5.613

Stanley, I. H., Hom, M. A., & Joiner, T. E. (2016). A systematic review of suicidal thoughts and behaviors among police officers, firefighters, EMTs, and paramedics. *Clinical Psychology Review, 44*, 25–44. doi:10.1016/j.cpr.2015.12.002

Lioce, L., Lopreiato, J., Downing, D., Chang, T. P., Robertson, J. M., Anderson, M., ... Spain, A. E., & The Terminology and Concepts Working Group (2020). Healthcare Simulation Dictionary –Second Edition. Rockville, MD: Agency for Healthcare Research and Quality; September 2020. AHRQ Publication No. 20-0019. doi:10.23970/simulationv2.

van Ommeren, M., Snider, L., & Schafer, A. (2011). (WHO, War Trauma foundation, World Vision International) Psychological First Aid: Guide for Field Workers. WHO: Geneva. https://www.who.int/publications/i/item/9789241548205.

Vermijlen, J. H., Wayne, D. B., Cohen, E. R., McGaghie, W. C., & Wood, G. J. (2020). Promoting readiness for residency: Embedding simulation-based mastery learning for breaking bad news into the medicine subinternship. *Academic Medicine, 95*(7), 1050–1056. doi:10.1097/ ACM.0000000000003210. PMID: 32576763.

World Health Organisation. (2017). Gender mainstreaming for managers: a practical approach. World Health Organization (Online). https://apps.who.int/iris/handle/10665/44516.