Crisis-focused Psychological Interventions

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Public safety personnel (PSP) and frontline healthcare professionals (FHP) are frequently exposed to potentially psychologically traumatic events (PPTEs), and report increased rates of post-traumatic stress injuries (PTSIs). Despite widespread implementation and repeated calls for research, effectiveness evidence for organizational post-exposure PTSI mitigation services remains lacking.

Crisis-focused Psychological Interventions | Posttraumatic Stress Injuries | Mental Health Services | Occupational Health | CISD | CISM | Systematic Review

1. Introduction

Public safety personnel (PSP; e.g., border services officers, public safety communications officials, correctional workers, firefighters, emergency managers, operational intelligence personnel, paramedics, and police) and frontline healthcare professionals (FHP; e.g., nurses, physicians, and staff in emergency, trauma, surgical, psychiatric, geriatric, and/or intensive care units, social workers and counsellors) are regularly exposed to potentially psychologically traumatic events (PPTEs), such as threats to their own life, witnessing violence, scenes of accidents, fatalities and suicide[1][2][3][4]. PPTEs are distinct from other occupational stressors that can also impact the mental health of PSP and FHP, such as shift work, extensive public scrutiny, and workplace stigma, harassment, or bullying[5]. Despite the high rates of PPTE exposure, there are few evidence-based programs or interventions for proactively mitigating the development of post-traumatic stress injuries (PTSIs) in PSP, FHP, and other PPTE-exposed workers. PTSIs resulting from PPTEs include symptoms of mood and anxiety disorders, as well as other mental disorders (e.g., PTSD), suicidal behaviors (i.e., ideation, planning, attempts), and maladaptive coping strategies (e.g., drug abuse, alcohol abuse, avoidance)[2][6][7][8]. The impact of PTSIs may include a reduction in the quality of occupational performance, increased absenteeism, sleep difficulties, a negative impact on relationships with others, burnout, other physical or psychological illnesses, disability, and early mortality [5][9][10][11]. The economic burden of PTSIs within PSP and FHP in Canada remains unknown, but productivity losses that result from mental disorders experienced in the Canadian workforce are estimated to be anywhere between $16.6 billion[12] and $51 billion[13][14][15] annually. Identifying effective programs and services that can change the occupational health trajectories of PSP and FHP following PPTEs, and mitigate PTSIs, is imminently required, particularly in light of the global novel coronavirus pandemic. The following systematic review is intended to provide various stakeholders, including worker's compensation boards and policy makers, with an overview of the recent empirical evidence evaluating the effectiveness of post-incident services for PSP, FHP, and other PPTE-exposed workers.

2. Psychological Services and Programs for PPTE-Exposed Workers

Several discrete programs have been developed as part of efforts to mitigate the impact of PPTEs in both PSP and FHP. In 2016, Beshai and Carleton[16] performed a comprehensive literature review of programs used by tri-service agencies (i.e., firefighters, paramedics, police) to mitigate PTSIs and evaluated the available evidence of program effectiveness. The most common interventions were described as “peer support programs”, defined by Cyr et al.[17] as a supportive relationship between individuals who have experienced adverse events such as a crisis with emotional and social support, encouragement, and hope. Other common interventions included “crisis-focused psychological intervention programs”, the most common being critical incident stress debriefing (CISD) or management (CISM), which are generally implemented 24–72 hours after exposure to a PPTE identified as critical. CISD is typically intended to provide opportunities for assistance and support in the context of work-related stressors [16][18]. The authors concluded there was “limited availability of research evidence and the important limitations in the existing research make conclusive decisions regarding the use of such programs impossible” [16][9] (p. 8). Likewise, results of a meta-analysis assessing the impact of police-specific stress management interventions designed to improve psychological, physiological, and behavioral outcomes appeared to evidence that the “interventions had no significant effect on … outcomes” [19](p. 6).

The current summary reviews the recent literature (2008-2019) investigating the effectiveness of organizational peer support and crisis-focused psychological interventions intended to mitigate PTSI among PSP, FHP and other relevant groups at risk of occupational PPTE exposure. The current synthesis of services and programs delivered after PPTE exposure can inform the effective development, implementation, evaluation, and evidence-based provision of intervention strategies that maximally mitigate PTSI among PPTE-exposed workers.

3. Systematic Review of Service Effectiveness

3.1 Methods & Results

The current systematic review synthesized and appraised recent (2008–December 2019) empirical research from 22 electronic databases following a population-intervention-comparison-outcome framework. Eligible studies investigated the effectiveness of organizational peer support and crisis-focused psychological interventions designed to mitigate PTSI among PSP, FHP, and other PPTE-exposed workers.

The current review identified 14 studies measuring the effectiveness of peer support programs and crisis-focused psychological interventions among PSP and FHP following exposure to a PPTE with the hopes of mitigating PTSIs, including PTSD.

Thematic groups identified within the literature included CISD (*n*=5: included 2 studies with undefined organizationally-offered or facilitated debriefing) and Critical Incident Stress Management (CISM, *n*=1), as well as several Peer Support programs (*n*=8) including types of psychological or mental health first aid and PPTE risk management. Study designs included randomized control trials (RCTs) and cluster RCTs (*n*=4), retrospective cohort studies (*n*=4), a prospective cohort study (*n*=1), and cross-sectional studies (*n*=5). Control interventions included waitlist controls (*n*=2),

psychoeducation only and no peer support training (*n*=1), or group versus video versus control versions of the intervention (*n*=1). Comparisons included training or service, or alternative physical health or general wellness-focused interventions (*n*=3). The duration of services or training sessions were commonly not reported (*n*=7), but reported services were administered for 60 minutes beginning within an hour of the PPTE concluding or for approximately 90 minutes within three days of the PPTE concluding[20]. The training program durations were 90 minutes[21], 4 hours[22][23], 13 hours[24], or two full-day sessions[25]. Study duration for RCTs and retrospective cohort studies ranged from one month[20] to 22 years[20]. The inconsistency in pre-post evaluations and for measured and reported outcomes across studies made a quantitative meta-analysis on service effectiveness impossible.

The associated extent of literature is still early in development; as such, the ability to draw conclusions about a particular service or intervention that is most effective for mitigating PPTE sequela exceeds the available data. There were at least three themes apparent across the available studies. First, some administrations of the diverse programs often synonymously referred to as CISD may be beneficial, but the evidence remains insufficient. There may also be forms of CISD offered by or facilitated by organizations that are problematic, but the evidence remains grossly insufficient. Second, given the heterogeneity in results and effectiveness across PSP and FHP, a “one-size-fits-all” approach may not be ideal. Third, there were diverse programs for developing peer support, but very preliminary evidence suggests peer support is associated with at least short-term favorable results. To facilitate iterative independent evaluation by researchers, established and transparent programs should be consistently applied, have defined structures (i.e., evidence-informed content and prescribed durations and evaluation intervals), and support fidelity and fidelity assessments. The results of such rigorous investigations into service effectiveness would in turn support evidence-based practices, profession-specific tailoring, and progressive improvements to PTSI mitigation strategies for at-risk occupational groups.

3.2 Strengths & Limitations of Existing Research

There is substantial evidence for several psychotherapies established as effective for treating PTSI resulting from work-related PPTEs, including PPTE-focused cognitive behavioral therapy, cognitive restructuring and cognitive processing therapy, and prolonged exposure, eye-movement and desensitization reprocessing[26]. Comparatively, there is a dearth of literature examining the effectiveness of proactive strategies for mitigating PTSIs following PPTE exposure[27]. PSP and FHP appear at greater risk for PPTE exposures[1][2][3][4][5]; accordingly, the identification of effective post-exposure strategies for mitigating PPTE-related disorders would be a substantial achievement. Studies have increasingly explored the unique mental health needs of PSP using a PPTE-informed lens. There is still a dearth of studies specifically focusing on PSP from a treatment and programming perspective.

The current results are similar to results from work performed with general population samples. Forneris and colleagues[28] and Forman-Hoffman and colleagues [51] found limited evidence supporting whether timing, intensity, and dosage impacted the effectiveness of post-PPTE programs designed to mitigate PTSIs, and whether outcomes from early interventions were impacted by demographic characteristics, psychiatric comorbidities, and personal risk factors. Previous reviews show that studies were limited by small study sizes, high attrition rates, and methodological shortcomings (e.g., absent randomization), problematic statistical methods, and a high risk of bias [28][29][30]. The current review also found inconsistent reporting of methodological approaches, outcome measures, and potential confounds to

program effectiveness, including pre-existing PTSIs or mental health conditions, symptom duration and/or severity, and concurrent treatment.

The limited evidence available is favorable for peer support programs as associated with small, but potentially important, short-term results. Studies have inconsistently demonstrated increasing mental health knowledge as being associated with less stigmatic attitudes towards self and others[5][31], and more confidence for recognizing when a peer may need help with basic skills such as starting a conversation out of concern for others or supporting help-seeking behavior[5][21], with peer support research deserving further exploration[5]. There are studies indicating that mental health training is associated with higher knowledge regarding mental health, lower negative attitudes, and higher supportive behaviors toward individuals with mental health problems [5][32]; however, due to a lack of consistent outcome measures, there is still no way to understand whether any services significantly change the mental health trajectory of PSP and FHP following PPTE exposure.

3.3 Future Directions

Additional studies are needed for understanding the potential impact of peer support and crisis-focused psychological intervention programs for PSP, FHP, and other workers frequently exposed to PPTE. Future studies need to: 1) use standardized outcome measures; 2) control for participants receiving interventions intended to mitigate risk by accounting for persons with a pre-existing PTSI; and 3) use methods sensitive to changes over time. Unfortunately, 12 of 14 studied reviewed were cross-sectional or retrospective cohort studies, precluding discussions of causation. Future studies could also directly compare the effectiveness of different programs for different groups of workers using standardized outcome measures. Additionally, large studies with longer follow-up periods are needed to determine the longevity of benefits over time. For example, Carleton and colleagues [22] reported a small, but temporary, decrease in stigma following implementation of one version of the four-hour Road to Mental Readiness (R2MR) course; however, the use of skills from the course declined at 6- and 12-month follow-ups. The current recommendations align with previous recommendations, such as those of the 2008 Australian government in “An organizational approach to preventing psychological injury”, which emphasized the need to monitor and review the implementation and effectiveness of interventions using agreed upon performance indicators and targets to ensure continuous improvement [33].

Future researchers should also pay close attention to the symptoms developed by each population of interest following occupational exposure to PPTEs, including the type, duration, and severity of PTSI symptoms, as well as any concurrent treatment. Together with comparable outcome measures, more comprehensive reporting of PTSI symptoms and PPTE exposures will further elucidate program effectiveness with greater scientific quality and rigor.

4.Conclusion

There is inconsistent evidence for the effectiveness of several organizational services developed and deployed to mitigate the psychological impact of PPTEs among PSP, FHP, and other workers frequently exposed to PPTE. Despite the lack of evidence, several organizations have implemented programming designed to support of PSP, FHP, and other workers frequently exposed to PPTE[5][16][14]. The broad variety of occupational populations sampled, intervention

approaches implemented, and outcomes evaluated in the current review preclude denoting any service as superior to any other service for mitigating PTSI among PSP and FHP following PPTE exposure. There is generally limited evidence regarding the effectiveness of crisis-focused psychological interventions and peer support intended to mitigate PTSI in PSP and FHP. With numerous forms of every program, including CISD, each with different fidelity challenges with respect to application, and fundamental problems with study design and consistency of outcome measures, recent evidence of the effectiveness of CISD for PSP and FHP is sorely lacking and inconclusive. Similarly, with the wide breadth of peer support programs observed and large variability in outcomes measures (many of which are unrelated to PTSI mitigation), there is low-to-moderate evidence regarding peer support programs for PSP and FHP.

Despite the important contemporary efforts, there currently remains a substantial gap in research and peer-reviewed literature on the effectiveness of organizational programs, interventions, and services, as well as educational programs intended to reduce PTSI following PPTE exposures among PSP and FHP. As policymakers mobilize legislation for mental health services across sectors in response to the global coronavirus pandemic, formal evaluation of the effectiveness of the proffered services is needed through careful and rigorous independent research inquiry, especially for evaluating the suitability and effectiveness of services tailored to PSP and FHP.

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