Experiences of children exposed to parental post-traumatic stress disorder while growing up in military and veteran families: a systematic review protocol

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Review question/objective: The objective of this review is to understand how parental Post-Traumatic Stress Disorder (PTSD) might impact children growing up in military and veteran families. The following question will guide and inform the review: What is the experience of children growing up in military families where the military or veteran parent is living with post-traumatic stress disorder?

Keywords Children; military families; post-traumatic stress disorder

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Introduction

As of 2013, the American Psychiatric Association revised the diagnostic criteria for post-traumatic stress disorder (PTSD) to include history of exposure to a traumatic event, with the exposed individual experiencing symptoms across four symptom clusters: intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity. Symptoms across these clusters must persist for over a month, with the individual experiencing significant functional impairment and/or symptom-related distress. While the onset of symptoms may be immediate, this diagnostic framework also recognizes that there may be a delayed onset of symptoms.[1] There are many types of trauma that may lead to PTSD, including sexual trauma, criminal victimization, work-related accidents and motor vehicle accidents.[2] Based on a cross-national comparison of the prevalence of PTSD, pooling 24 studies published between 2005 and 2014 and representing almost 90,000 respondents, Canadian data reported the highest lifetime PTSD prevalence of 9.2%, followed by the Netherlands (7.4%), Australia (7.2%), and the United States (6.8%).[3] Combat trauma has garnered significant interest as a predictor of PTSD in the military and veteran populations internationally, with evolving guerrilla-style strategies from combatants potentially introducing additional risk.[4] Estimates of PTSD among military and veteran populations vary both within and across countries, often at higher rates than the broader civilian population.[5-8]

Secondary traumatization

When individuals are exposed to trauma, the impacts of that exposure have the potential to ripple into their family systems, within and across generations. The intergenerational transmission of trauma has also been associated with terms such as vicarious trauma and secondary traumatization. The phenomenon of secondary traumatization was first noted in the families of Holocaust survivors,[9] although mixed research results have been noted.[10] When a member of a generation experiences a major trauma, such as surviving the Holocaust, the impacts on subsequent generations have been referred to as ''noxious'',[11] impairing family systems and damaging the coping strategies of children. Children downstream of another generation's trauma may experience increased rates of depressive and anxious disorders.[11] Yehuda and colleagues found that, among adult offspring of Holocaust survivors, higher levels of self-reported childhood trauma, which they considered to be largely

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attributable to parental PTSD, correlated with higher rates of PTSD.[12]

Post-traumatic stress disorder and spouses of military personnel and veterans

There have been multiple studies showing that spouses or partners connected to a military member or veteran who has been diagnosed with PTSD may also demonstrate clinical levels of PTSD.[13,14] When a present or previously serving member has PTSD, research suggests that there are negative consequences on the spousal relationship; spouses report living a daily life of ''walking on eggshells''[15] and protracted psychological stress, coupled with lower relationship satisfaction.[16,17] There are also several studies that explore the impact of parental PTSD on the family system broadly.[18,19]

There are numerous handbooks on how to work with military spouses and children in the context of psychiatric disorders such as anxiety, depression, and PTSD.[20,21] Programs such as Families Over-Coming Under Stress (FOCUS) have been developed to respond to issues such as PTSD, which can complicate family reintegration after deployment.[22] Family issues can also complicate recovery from PTSD, indicating a need to intervene at the family system level.[23]

Post-traumatic stress disorder and children

Lambert *et al.* conducted a meta-analysis of the relationship between parental PTSD symptoms and psychological and behavioral issues of the children, determining a medium overall effect size. Both biological and relationship factors were identified as potentially contributing to the association between parental PTSD and child outcomes.[17] Children are particularly vulnerable to stressors within their social environments, and ongoing adversities in their lives can undermine their development and create enduring health sequelae.[24] Psychiatric, neurodevelopmental and emotional impacts are manifest across different types of traumatic exposures.[25] Female children in particular seem to be more susceptible to secondary traumatization.[26] The limited coping skills, especially among the very young, leave children vulnerable.[27]

Growing up in military families

Over the past few decades, growing up in a military family has changed considerably. Military families increasingly live within civilian communities rather than congregated military housing on bases. Neighborhoods off-base have no shared historical understanding of the needs and issues of military families, creating demand for much broader awareness across health systems of how the exigencies of war impact military families' daily functioning.[28] The Office of the Ombudsman, National Defence and Canadian Forces released a report, ''On the Homefront: Assessing the Well-Being of Canada's Military Families in the New Millennium'', which described important ways in which military families differ from civilian families — the combination of mobility, separation and risk. Military families move much more frequently, with much less control as to where, when and for how long, than civilian families. The nature of the serving member's job takes them away regularly for weeks and months at a time for training and deployment. Moreover, the job itself comes with heightened risk to psychological and physical safety. Through the Ombudsman's report, civilian parents and caregivers noted their concern that their children might be ''paying a price for their parent's service to the nation''.[29(p.8)] Given the ''relentless upheaval of military life''[29] associated with parental deployment and frequent moves, children in military families live with a unique and persistent constellation of stressors. These stressors create an increased risk of developing mental health problems, including negative psychological, behavioral, and learning outcomes.[30,31]

Post-traumatic stress disorder and children in military-connected families

A preliminary search for systematic reviews was conducted in the Cochrane Database of Systematic Reviews, PROSPERO, Epistemonikos, MEDLINE, CINAHL, PsycINFO and the *JBI Database of Systematic Reviews and Implementation Reports*; no systematic reviews were located on this topic. Our preliminary search of the literature returned over 14,000 citations and revealed several articles relevant to this topic (e.g. McCormack & Sly[32] and McCormack & Devine[33]).

Inclusion criteria

Participants

This review will include all children who are members of military-connected families with a minimum of one parent living with a diagnosis of military

service-related PTSD. This includes adults who have one or both parents who serve or who have served in the military. The reason for this inclusion of adult children is that sometimes it is only much later in life and on reflection that people can describe their experiences of living with a parent who has military service-related PTSD. There are no age limit restrictions for children.

Exclusion criteria

Studies that examine homeland conflict (i.e. war within one's own country during which children would be subject to a variety of other traumas) will be excluded. Studies that examine children of Holocaust survivors will also be excluded because Holocaust survivors were citizens and not military personnel.

Phenomena of interest

The phenomenon of interest for this review is the experience of the child growing up with a parent who has military-related PTSD.

Context

The context of this review is military connected families. It is often impossible to know (in real life and in research) whether the PTSD has been acquired at some time prior to military service or has its origins in the experiences endured during military service. No limitations were imposed in terms of geography.

Types of studies

This review will consider studies that focus on qualitative data including, but not limited to, designs such as phenomenology, grounded theory, ethnography, qualitative description, action research and feminist research. Case studies or case reports will also be considered.

Methods

Search strategy

The search strategy will aim to find both published and unpublished studies. An initial limited search of MEDLINE and CINAHL has been undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe article. This informed the development of a search strategy which will be tailored for each information source. A full search strategy for MEDLINE is detailed in Appendix I. The reference list of all studies selected for critical appraisal will be screened for additional studies. Studies published in English will be included. No date limitation will be imposed on the search strategies.

Information sources

The databases to be searched include: MEDLINE, Embase, Web of Sciences, CINAHL, PsycINFO, AMED, ERIC.

The search for unpublished studies will include: ProQuest Dissertations and Theses.

Study selection

Following the search, all identified citations will be collated and uploaded into Covidence and duplicates removed. Titles and abstracts will then be screened by two independent reviewers for assessment against the inclusion criteria for the review. Studies that may meet the inclusion criteria will be retrieved in full and their details imported into Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI SUMARI). The full text of selected studies will be retrieved and assessed in detail against the inclusion criteria. Full text studies that do not meet the inclusion criteria will be excluded and reasons for exclusion will be provided in an appendix in the final systematic review report. Included studies will undergo a process of critical appraisal. The results of the search will be reported in full in the final report and presented in a PRISMA flow diagram. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer.

Assessment of methodological quality

Selected studies will be critically appraised by two independent reviewers at the study level for methodological quality in the review using the JBI Critical Appraisal Checklist for Qualitative Research.[34] Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. The results of critical appraisal will be reported in narrative form and in a table.

Data extraction

Qualitative data will be extracted from papers included in the review using the standardized data extraction tool from JBI SUMARI by two independent reviewers.[35] The data extracted will include specific details about the populations, context,

culture, geographical location, study methods and the phenomena of interest relevant to the review question and specific objectives. Findings that are relevant to the research question will be identified and extracted with their illustrations. Findings will be assigned a level of credibility. If we encounter missing information or require additional clarification on certain issues, the authors of the primary studies will be contacted.

Data synthesis

Qualitative research findings will, where possible, be pooled using JBI SUMARI with the meta-aggregation approach.[34] This will involve the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings and categorizing these findings on the basis of similarity in meaning. These categories are then subjected to a synthesis in order to produce a single comprehensive set of synthesized findings that can be used as a basis for evidence-based practice. Where textual pooling is not possible the findings will be presented in narrative form.

Data analysis

Following the synthesis of the data, further analysis of the synthesized findings will be informed by Dekel and Goldblatt's framework for understanding intergenerational transmission of PTSD within families of war veterans.[36] This intergenerational transmission of PTSD framework drew from qualitative and quantitative research describing the nature and severity of transmission. This highly cited framework proposes a way to distinguish the direct, indirect, and hypothesized effects of the role of the trauma, the father's level of PTSD symptoms, the presence of violence in the home, the mediating role of the mother, offspring characteristics such as gender, age, and birth order, and outlines negative and potentially positive consequences of the father's trauma among the offspring. This framework will be used (where possible) to align the results of the meta-aggregation.

Assessing certainty in the findings

The final synthesized findings will be graded according to the ConQual approach for establishing confidence in the output of qualitative research synthesis and presented in a Summary of Findings.[37] The Summary of Findings includes the major elements of the review and details how the ConQual score is developed. Included in the table is the title, population, phenomena of interest and context for the specific review. Each synthesized finding from the review is then presented along with the type of research informing it, a score for dependability, credibility, and the overall ConQual score.

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Appendix I: Search strategy

Search strategies were adapted for all other resources using the database-specific subject headings and text words when appropriate.

Ovid MEDLINE:

1. exp Sleep Wake Disorders/
2. sleep disorder*.mp.
3. sleep wake disorder*.mp.
4. ''trauma and stressor related disorders''/
5. adjustment disorders/
6. stress disorders, traumatic/
7. combat disorders/
8. psychological trauma/
9. stress disorders, post-traumatic/
10. stress disorders, traumatic, acute/
11. Stress, Psychological/
12. hypervigilan*.mp.
13. ptsd.mp.
14. posttrauma*.mp.
15. post trauma*.mp.
16. (trauma* adj2 (stress* or emotional* or psychologic*)).mp.
17. (stress* adj2 (chronic or psychological* or combat* or disorder*)).mp.
18. (combat adj3 (disorder* or illness or trauma*)).mp.
19. (adjust* adj2 disorder*).mp.
20. operational stress injur*.mp.
21. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20
22. exp ''warfare and armed conflicts''/
23. Military Personnel/
24. Veterans/
25. military.mp.
26. veteran*.mp.
27. reservist*.mp.
28. navy.mp.
29. army.mp.

30. air force.mp.
31. coast guard.mp.
32. commissioned officer*.mp.
33. national guard.mp.
34. naval.mp.
35. infantry.mp.
36. marine*.mp.
37. forces.mp.
38. reserve officer*.mp.
39. ROTC.mp.
40. combat*.mp.
41. soldier*.mp.
42. war.mp.
43. warfare.mp.
44. wartime.mp.
45. deploy*.mp.
46. 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45
47. Child/
48. exp Infant/
49. Adolescent/
50. child*.mp.
51. youth.mp.
52. adolescen*.mp.
53. dependent*.mp.
54. military brat*.mp.
55 .preschooler*.mp.
56. infant*.mp.
57. toddler*.mp.
58. newborn*.mp.
59. teen.mp.
60. teens.mp.
61. teenager*.mp.

62. girl*.mp.
63. boy.mp.
64. boys.mp.
65. kid.mp.
66. kids.mp.
67. exp Parent-Child Relations/
68. Military Family/
69. Family Relations/
70. Family Conflict/
71. Family/
72. Intergenerational Relations/
73. Parenting/
74. exp Maternal Behavior/
75. Paternal Behavior/
76. Parents/
77. fathers/
78. mothers/
79. family.mp.
80. families.mp.
81. parent*.mp.
82. father*.mp.
83. mother*.mp.
84. intergeneration*.mp.
85. generation*.mp.
86. secondary trauma*.mp.
87. or/47–86
88. 21 and 46 and 87

