INPLASY

Literature review protocol of essential frontline workers during disasters and crises to examine individual-family-work challenges

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ADMINISTRATIVE INFORMATION

Support - There is no financial support for this project.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 7 August 2025 and was last updated on 7 August 2025.

INTRODUCTION

Review question / Objective To review the literature on the individual, family, and workplace challenges for frontline, essential workers during disasters and crises. This study will answer the research question: What are intersecting challenges for frontline or essential workers across the individual, family, and workplace during a disaster or crisis? Objectives include examining the triangulation of mental health and well-being across the individual, family, and workplace levels. In particular, this review will look for recommendations to improve emergency preparedness, response, and resiliency.

Rationale While there has been significant new literature focusing on healthcare frontline workers during the COVID-19 pandemic, there is still limited understanding about the challenges faced by all workers declared "essential" across various kinds of disasters and crises and do not switch to remote work, such as grocery store workers. Moreover, anecdotal reports, such as news articles, suggest that the challenges experienced by these kinds of workers were unique and compounded compared to those who could transition to remote work. As such, this literature review will shed light on those unique challenges in relation to the individual, their family, and work; the intersections of those challenges; and how they interact with other facets of a worker's life.

Condition being studied This review will examine the individual, family, and work challenges faced by essential frontline workers during disasters and crises.

METHODS

Search strategy Five group criteria of keywords will be used to search for relevant literature:
1. Essential Frontline Workers: "essential" OR "frontline"
2. Individual: "personal" OR "individual" OR "private"
3. Family: "family" OR "relative" OR "home" OR "house"

4. Work: "work" OR "business" OR "occupation" OR "profession" OR "compan" OR "firm" OR "organization" OR "plant"
5. Disaster Setting: "disaster" OR "hazard" OR "crisis" OR "pandemic" OR "epidemic".

Participant or population This review will focus on frontline workers or essential workers during disasters and crises.

Intervention This review will not evaluate any interventions.

Comparator This review will not evaluate any comparative interventions.

Study designs to be included Primary empirical data studies using quantitative, qualitative, or mixed methods.

Eligibility criteria Additional inclusion criteria for all databases: English; peer-reviewed journal articles, published after 2000
Additional exclusion criteria for all databases: workers switching to remote work during a disaster or crisis.

Information sources Databases to be searched: ProQuest Central; PsycINFO; PubMed; and Web of Science.

Main outcome(s) Based on the review results, we expect to identify outcomes based on the three facets of challenges for frontline, essential workers during a disaster or crises:
1. Individual challenges: the literature review will identify and discuss challenges faced by individual workers during a crisis. Specifically, we will identify how these challenges intersect with family and work including being compounded by kinds of relationships and organizational practices. By examining the literature on individual challenges, this review will identify avenues and gaps in knowledge related to individual crisis resilience.
2. Family challenges: the literature review will identify and discuss challenges for families of workers including physical health and relational wellbeing. Outcomes will also include the intersection of family challenges with the individual and workplace, with particular attention paid to the directionality of the challenges (e.g., family-to-work or work-to-family). As such, this review will identify avenues and gaps in knowledge related to family crisis preparedness and resilience.
3. Work challenge: the literature review will identify and discuss work challenges including supervisor support, work hours, and personal protective equipment provided to workers during a disaster

or crises. By examining the literature of work challenges in disasters or crises, in conversation with organizational supports and practices, this review will identify avenues and gaps in knowledge related to workplace crises preparedness and resilience.

Additional outcome(s) As mentioned above, additional outcomes will include the intersection and directionality of challenges across the three facets for comprehensive wellbeing during a disaster or crisis. An additional outcome will be interconnections between the worker and larger societal challenges and pressures such as media portrayals. Lastly, differences in challenges for workers is likely expected based on the type of disaster or crisis.

Data management Data management will occur through multiple steps using COVIDENCE and other digital tools.
1. Search: Database search results will be extracted into an RIS file and imported into the online tool COVIDENCE for screening. Covidence will remove all identified duplicates across the four databases.
2. Screening: Within Covidence, two reviewers will screen the title and abstract for all imported articles. A third reviewer will resolve any conflicts.
3. Full Text Review: Within Covidence, two reviewers will review the full text of all articles that passed screening.
4. Extraction: The final list of articles will be extracted from Covidence for analysis and synthesis. Covidence will provide additional descriptive statistics and graphics in keeping with a systematic literature review (e.g., PRISMA).
5. Synthesis and Analysis: Additional tools such as spreadsheets and analytical memo-ing will be used for thematic and document analysis for documenting transparency of methods and analysis.

Quality assessment / Risk of bias analysis
Quality assessment: Multiple reviewers will independently review both title-abstract and full-text screening. The two stages of multiple reviewers promote validity and reliability of inclusion/exclusion criteria.
Risk of bias: The preemptively identified inclusion/exclusion criteria and documenting decisions decrease the risk of bias in the screening and selection process. As this is a social science-based literature review, a formal assessment risk of bias scale will not be used.

Strategy of data synthesis Multiple stages of data synthesis will occur.

1. Organization: Data will be organized first through Covidence and then exported into spreadsheets to include the relevant metadata and article characteristics. Findings from each included article will be organized using analysis software (e.g., NVivo) and additional spreadsheets to include accessibility and useability of identified data.

2. Familiarization: Thematic analysis will guide initial familiarization examining the width and breadth of the data corpus. This method will refine research sub-questions to be relevant to included data.

3. Initial Coding: Descriptive labels will be developed through in vivo coding for specific concepts, themes, and/or patterns in the data.

4. Organizing and Refining Codes: Codeweaving and code patterning will synthesize inductive coding with initial familiarization themes. Repeated meetings across the research team throughout code organization will increase validity of code categories and relevancy to research questions.

5. Synthesis and Reporting: Final codes will be synthesized in relation to the research question and theoretical framework. Synthesis will include contextualizing the findings in relation to the included studies. Theoretical, practical, and policy implications will guide the final reporting and dissemination of findings.

Subgroup analysis Subgroup analysis will include considering the type of crisis or disaster at the focus of the study and the type of essential frontline worker (e.g., healthcare with non-healthcare).

Sensitivity analysis Sensitivity will be considered throughout repeated, ongoing discussions across the research team along with cross-team analysis to promote trustworthiness in selection and interpretation.

Language restriction English.

Country(ies) involved Canada.

Keywords Disaster; crisis; mental health; essential worker; frontline worker; workplace; family; challenge; literature review.

Dissemination plans This study will result in a peer-reviewed publication.

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