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Rapid Review: How does physical distancing impact mental health?



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Executive Summary

Background

While necessary to slow the spread of the novel coronavirus and avoid overwhelming the healthcare system, physical distancing and quarantine measures may have negative impacts on mental health. Evidence on the effect of physical distancing on mental health, vulnerable groups and stressors will help inform the implementation of physical distancing such that adverse outcomes are minimized.

This rapid review was produced to support public health decision makers' response to the coronavirus disease 2019 (COVID-19) pandemic. This review seeks to identify, appraise, and summarize emerging research evidence to support evidence-informed decision making.

This rapid review is based on the most recent research evidence available at the time of release. This version includes evidence available up to May 7, 2020.

In this rapid evidence review, we provide the most recent research evidence to answer the question:
How does physical distancing impact mental health?

Key Points

- Outbreaks prior to COVID-19 show an association between adverse mental health effects and quarantine. Evidence quality is low to moderate; findings are consistent.
- One review of moderate quality found that the negative effects of quarantine were exacerbated by longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma. Evidence quality is low to moderate.
- One review of moderate quality recommended that to mitigate the negative effects of physical distancing, quarantine should be implemented for no longer than required, clear rationale and information should be provided, and sufficient supplies should be ensured. Appealing to altruism by emphasizing the benefits of quarantine rather than legislating quarantine may also be favourable. Evidence quality is low to moderate.

Overview of Evidence and Knowledge Gaps

- Synthesized evidence was limited to one review of studies conducted on outbreaks prior to COVID-19. These outbreaks did not see physical distancing implemented as widely as during the COVID-19 pandemic.
- Two low-quality studies conducted during the COVID-19 pandemic are available. Results were consistent with the included review.
- Evidence on the impact of physical distancing on the mental health of specific groups is lacking.

Methods

Research Question

How does physical distancing impact mental health?

Search

On May 7, 2020, the following databases were searched for evidence for the impact of quarantine on mental health.

- Cochrane: [Coronavirus \(COVID-19\) Special Collections](#)
- Cochrane [Rapid Reviews Question Bank](#)
- Joanna Briggs Institute [COVID-19 Special Collection](#)
- Oxford [COVID-19 Evidence Service](#)
- Oxford [COVID-19 Evidence Service: Current Questions Under Review](#)
- [Turning Research Into Practice \(TRIP\)](#)
- [Guidelines International Network \(GIN\)](#)
- [LitCovid](#)
- World Health Organization [Global literature on coronavirus disease](#)
- [CovidReview](#)
- [Prospero](#)
- COVID-19 [Evidence Alerts from McMaster PLUS™](#)
- [Public Health +](#)

A copy of the search strategy is available on request.

Selection Criteria

The search first included recent, high-quality syntheses. If no syntheses were found, single studies were included. English-language, peer-reviewed sources and sources published ahead-of-print before peer review were included. Grey literature and surveillance sources were excluded.

	Inclusion Criteria	Exclusion Criteria
Population	Seniors LTC Residents School aged children / adolescents New mothers People living alone Individuals diagnosed with depression / anxiety General population	Healthcare workers
Intervention	Physical distancing measures, including: School closures Non-essential business closures Visitor limitations at facilities	
Comparisons	Usual conditions	
Outcomes	New onset or worsening of mental health symptoms New diagnosis of mental health conditions Self-report mental health symptoms	

Data Extraction and Synthesis

Data on study design, setting, location, population characteristics, interventions or exposure and outcomes were extracted when reported. We synthesized the results narratively due to the variation in methodology and outcomes for the included studies.

We evaluated the quality of included evidence using critical appraisal tools as indicated by the study design below. Quality assessment was completed by one reviewer and verified by a second reviewer. Conflicts were resolved through discussion.

Study Design	Critical Appraisal Tool
Synthesis	Health Evidence™ Quality Appraisal Tool
Cross-Sectional	Joanna Briggs Institute (JBI) Checklist for Analytical Cross Sectional Studies

Completed quality assessments for each included study are available on request.

Findings

This document includes one completed and six in-progress syntheses and two single studies, for a total of nine publications included in this evidence review. The quality of the evidence included in this review is as follows:

		Total	Quality of Evidence
Syntheses	Completed Reviews	1	1 Moderate
	In Progress Reviews	6	-
Single Studies	Completed	2	2 Low

Warning

Given the need to make emerging COVID-19 evidence quickly available, many emerging studies have not been peer reviewed. As such, we advise caution when using and interpreting the evidence included in this rapid evidence service. We have provided a summary of the quality of the evidence as low, moderate, or high to support the process of decision making. Where possible, make decisions using the highest quality evidence available.

Table 1: Syntheses

Reference	Date Released	Description of included studies	Summary of Findings	Quality Rating: Synthesis	Quality Rating: Included Studies
<p>Brooks S.K., Webster, R.K., Smith, L.E., Woodland, L., Wessely, P., Greenberg, N., & Rubin, G.J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. <i>Lancet</i>, 395, 912-920.</p>	<p>Feb 26, 2020</p>	<p>24 studies from around the world conducted on quarantine for previous outbreaks, such as SARS and Ebola, published between 2004-2019.</p> <ul style="list-style-type: none"> • 14 quantitative observational studies (including 11 cross-sectional studies) • 7 qualitative studies • 3 mixed methods studies <p>Data were collected from study participants through interviews, focus groups, surveys, psychological evaluations and direct observations.</p>	<p>Studies that examined the psychological effects of quarantine consistently found negative mental health effects for people quarantined compared to those not quarantined, including post-traumatic stress symptoms, anxiety, anger. Longer-term studies found that quarantined individuals continued to engage in avoidance behaviors, such as avoiding crowded, enclosed, or public spaces for weeks or months following quarantine.</p> <p>According to self-reported data and qualitative studies, negative effects of quarantine were exacerbated by longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma.</p> <p>Review authors make the following recommendations to mitigate the negative psychological impacts of quarantine: implementing quarantine for no longer than required, providing clear rationale and information, and ensuring sufficient supplies are provided. Appealing to altruism by emphasizing the benefits of quarantine rather than legislating quarantine may also be favourable.</p>	<p>Moderate</p>	<p>Not reported</p>

Table 2: In-Progress Syntheses

Title	Anticipated Release Date	Population	Description of document
Fong, V. A systematic review of child and family psychosocial outcomes and information needs following pandemics: applications for COVID-19 . PROSPERO 2020 CRD42020179437	May 28, 2020	Children and families	This review will synthesize evidence on outcomes for children and families following outcomes, as well as factors that may mitigate these outcomes.
O'Reilly, A., Booth, A., Doyle, E., Tibbs, M., McKeague, E., & Moore, J. A rapid review investigating the impact of a pandemic on the mental health of young people aged 12-25 years . PROSPERO 2020 CRD42020177796	May 31, 2020	Young people (aged 12-25)	This rapid review seeks evidence on the impact of a pandemic on the mental health of young people. Studies from pandemics prior to COVID-19 will be considered.
Usher, K., Jackson, D., Durkin, J., Gyamfi, N., & Bhullar, N. A rapid review of pandemic-related crowd behaviour and psychological outcomes . PROSPERO 2020 CRD42020181576	Jun 1, 2020	General population	This rapid review will address evidence for the impact of crowd behaviour, such as social distancing, panic buying, hoarding, isolation, and quarantine on the general population's mental health.
Chau, S., Wong, O., Wong, E., Chan, S. Is COVID-19 a remake of SARS? A systematic review of the immediate and long-term mental health implications of SARS epidemic survivors, healthcare workers and the general public . PROSPERO 2020 CRD42020183812	Jun 30, 2020	General population	This review seeks to determine the prevalence of mental health issues following the SARS outbreak, as well as the risk and protective factors associated with these symptoms. The review will also examine interventions implemented during the SARS outbreak that may be applied during the COVID-19 pandemic.
Oxford COVID-19 Evidence Service. (2020). Quarantine and its potential impact on psychological health	Not available	N/A	N/A
The DEPRESSD Project. (2020). Curating evidence on mental health during COVID-19: A living systematic review .	Not available	General population	This living systematic review will evaluate studies that report changes in mental health symptoms during the COVID-19 pandemic, factors associated with changes in symptoms and interventions for mental health symptoms. A narrative synthesis of results will be updated online on an ongoing basis.

Table 3: Single Studies

Title	Date Released	Study Design	Population	Setting	Summary of findings	Quality Rating:
<p>Lei, L., Huang, X., Zhang, S., Yang, J., & Xu, M. (2020). Comparison of prevalence and associated factors of anxiety and depression among people affected by versus people unaffected by quarantine during the COVID-19 epidemic in Southwestern China. <i>Medical Science Monitor: International Medical Journal of Experimental and Clinical Research</i>, 26, e924609.</p>	<p>Apr 26, 2020</p>	<p>Cross-sectional</p>	<p>General population</p>	<p>China</p>	<p>Findings from a cross-sectional online survey in southwestern China show that prevalence of self-reported anxiety and depression are significantly higher amongst those affected by quarantine (12.9%, 22.4%) than those not affected (6.7%, 11.9%) in February 2020.</p>	<p>Low</p>
<p>Zhu, S., Wu, Y., Zhu, C., Hong W., Yu, Z., Chen, Z., Jian, D., & Wang, Y. (2020). The immediate mental health impacts of the COVID-19 pandemic among people with or without quarantine managements. <i>Brain, Behavior, and Immunity</i>, S0889-1591(20)30601-2. Epub ahead of print.</p>	<p>Apr 18, 2020</p>	<p>Cross-sectional</p>	<p>General population</p>	<p>China</p>	<p>Data gathered via a mobile app from individuals in China found high self-reported mental health problems, but no difference between those who were under quarantine, and not under quarantine.</p> <p>Findings from this cross-sectional online survey in China show a high prevalence of self-reported anxiety and depression in participants affected by quarantine and participants not affected by quarantine. There was no significant difference between groups.</p> <p>However, self-reported anxiety and depression were significantly higher in individuals who reported dissatisfaction with control measures.</p>	<p>Low</p>

References

- Brooks, S.K., Webster, R.K., Smith, L.E., Woodland, L., Wessely, P., Greenberg, N. & Rubin, G.J. (2020). [The psychological impact of quarantine and how to reduce it: rapid review of the evidence](#). *Lancet*, 395, 912-920.
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- The DEPRESSD Project. (2020). [Curating evidence on mental health during COVID-19: A living systematic review](#).
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