INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Exploring whether social media misinformation contributes to COVID-19 vaccine hesitancy in the pregnant population: A systematic review

Malik, M[1]; Bauer-Maison, N[2]; Guarna, G[3]; Sharma, S[4]; D'Souza, R[5].

Review question / Objective: The objectives of this review were to 1) determine examples of misinformation on social media regarding COVID-19 vaccination and pregnancy, 2) reasons for the spread of misinformation, and 3) summarise suggested solutions from the papers we analysed.

Condition being studied: COVID-19 vaccination hesitancy in pregnant individuals.

Eligibility criteria: The inclusion criteria were original research studies that discussed misinformation on social media related to the COVID-19 vaccine related to pregnancy. The exclusion criteria were studies not published in English or where there was insufficient information to include (such as where a full-text was not available).

INTRODUCTION

Review question / Objective: The objectives of this review were to 1) determine examples of misinformation on social media regarding COVID-19 vaccination and pregnancy, 2) reasons for the spread of misinformation, and 3) summarise suggested solutions from the papers we analysed.

Rationale: Pregnant people are deemed to be at increased risk for severe adverse outcomes from COVID-19 infection, but despite that, vaccination rates in this population are lower than that of the general population. There has also been a growing amount of misinformation on social media regarding COVID-19 vaccines. We sought to understand the role that social media misinformation plays in contributing to COVID-19 vaccine hesitancy in the pregnant population.

Condition being studied: COVID-19 vaccination hesitancy in pregnant individuals.

METHODS

Search strategy: We conducted a literature search in two bibliographic databases: MEDLINE and Embase, and included articles published after December 2019 until October 2022, to ensure only articles related to the COVID-19 vaccine were captured. An updated search was performed on February 8, 2023. The search terms included controlled vocabulary terms and keywords related to social media, Facebook, Instagram, Twitter, Tiktok, misinformation, disinformation, false information, misleading information, COVID-19, pandemic, vaccin*, pregnant, conceiving, and other similar terms. An updated search with the same search terms was performed on February 8, 2023. A forward snowballing method was also conducted using Google Scholar by citation tracking each of the included articles, to ensure all relevant articles were captured.

Participant or population: Pregnant people.

Intervention: Social media misinformation about the COVID-19 vaccine.

Comparator: N/A.

Study designs to be included: Original research studies.

Eligibility criteria: The inclusion criteria were original research studies that discussed misinformation on social media related to the COVID-19 vaccine related to pregnancy. The exclusion criteria were studies not published in English or where there was insufficient information to include (such as where a full-text was not available).

Information sources: Electronic databases: MEDLINE and Embase.

Main outcome(s): Examples of misinformation regarding the COVID-19 vaccine on social media, important findings related to how this impacted COVID-19 vaccine decisions in the pregnant population, and suggested solutions.

Additional outcome(s): N/A.

Data management: Data was recorded and managed on an Excel spreadsheet.

Quality assessment / Risk of bias analysis: The JBI critical appraisal tool for analytical cross-sectional studies was used to assess the quality of included studies, by two independent reviewers. Any discrepancies were resolved by discussion until consensus was achieved. Studies with a JBI score higher than 70% were classified as high quality, those with a score between 50% and 70% were classified as moderate quality, and those with a score less than 50% were classified as low quality.

Strategy of data synthesis: A narrative synthesis was performed.

Subgroup analysis: The included studies did not collect quantitative data, and as such a narrative synthesis was performed.

Sensitivity analysis: The included studies did not collect quantitative data, and as such a narrative synthesis was performed.

Language restriction: English.

Country(ies) involved: Canada.

Keywords: Pregnant; COVID-19 Vaccine; Social Media; Misinformation; COVID-19 Vaccine Hesitancy.

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