COVID-19 Vaccination Hesitancy during pregnancy: A Mixed Methods Social Media Analysis

Su Golder[1], Aiden McRobbie-Johnson [2], Ari Klein[2], Florencia Polite[2], and Graciela Gonzalez Hernandez[3]

[1]University of York
[2]University of Pennsylvania
[3]Cedars-Sinai Medical Center

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Abstract

Objective: To evaluate the reasons for COVID-19 vaccine hesitancy during pregnancy from first-person reports. Design: We used regular expressions to identify publicly available social media posts from pregnant people expressing at least one reason for their decision not to accept COVID-19 vaccine. Setting: WhatToExpect and Twitter. Sample: 1017 posts from 945 pregnant people in WhatToExpect and 435 tweets from 345 pregnant people in Twitter Methods: Two annotators manually coded posts according to the Scientific Advisory Group for Emergencies (SAGE) working group's 3Cs model of vaccine hesitancy (confidence, complacency, and convenience barriers). Within each theme we created subthemes which emerged from the data. Results: Confidence barriers were the most common (75%) and were related to safety, waiting until after the 2nd trimester, birth or breastfeeding, efficacy, misinformation or mistrust. Complacency barriers were also common (52%) with people stating that they did not need the vaccine because they were taking other precautions, were not at risk or had already had COVID-19. Convenience barriers were the least common (13%) with most of these related to medical advice or eligibility. Some women gave more than one reason for their hesitancy and many of the reasons were inter-linked. Conclusion: The reasons for COVID-19 vaccine hesitancy during pregnancy give a clear picture of the public health messages required. Concerns around safety should be addressed in a sensitive manner. The relative effectiveness of the vaccine as compared with other precautions could be better promoted as could the high-risk nature of a COVID-19 infection during pregnancy.

Short title: Vaccine Hesitancy during pregnancy

Su Golder PhD[1], Aiden Catharine Elizabeth McRobbie-Johnson[2], Ari Klein PhD[2], Florencia Greer Polite MD[3] Graciela Gonzalez Hernandez PhD[4]

[1]Department of Health Sciences, University of York, York, United Kingdom

[2]Department of Biostatistics, Epidemiology and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

[3]Department of Obstetrics & Gynecology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

[4]Department of Computational Biomedicine, Cedars-Sinai Medical Center, West Hollywood, CA, USA

Corresponding Author:

Su Golder BSc (hons), MSc, FRSA, PhD

Senior Research Fellow

Department of Health Sciences

University of York

York, YO10 5DD

Tel: 01904 321904

Email: su.golder@york.ac.uk

Twitter: @SuGolder

Orcid id: 0000-0002-8987-5211

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