A comparative assessment between Globorisk and WHO cardiovascular disease risk scores: a population-based study

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Abstract

Background: Pregnant women form a specially vulnerable group due to unique changes in pregnancy, leading to a higher risk of getting a severe infection. As severe COVID-19 increases the risk of preeclampsia, preterm delivery, gestational diabetes, and low birth weight in pregnancy, there is a need to enhance pregnant women's knowledge, attitudes, and practices to prevent these complications. This systematic review and meta-analysis aimed to determine their levels of knowledge, attitudes, and practice (KAP) regarding COVID-19 at the global level.

Methods: The systematic literature search was conducted in the English language, including Google Scholar, Scopus, PubMed/MEDLINE, Science Direct, Web of Science, EMBASE, Springer, and ProQuest, from the occurrence of the pandemic until September 2022. We used The Newcastle Ottawa scale for cross-sectional studies checklist to evaluate the risk of bias in the studies. Data were extracted by a Microsoft Excel spreadsheet and analyzed by STATA software version 14. We also employed Cochran Q statistics to assess the heterogeneity of studies and utilized Inverse variance random-effects models to estimate the pooled level of pregnant women's KAP towards COVID-19 infection prevention.

Results: Based on the preferred reporting items for systematic reviews and meta-analyses (PRISMA) and inclusion criteria, 53 qualified studies were acquired from several countries. In total, 51 articles (17,319 participants) for knowledge, 15 articles (6,509 participants) for attitudes, and 24 articles (11,032 participants) for practice were included in this meta-analysis. The pooled good knowledge, positive attitude, and appropriate practice in pregnant women were estimated at 59% (95% CI: 52–66%), 57% (95% CI: 42–72%), and 53% (95% CI: 41–65%), respectively. According to subgroup analysis, the level of knowledge, attitude, and practice were 61% (95% CI: 49–72), 52% (95% CI: 30–74), and 50% (95% CI: 39–60), respectively, in Africa, and 58.8% (95% CI: 49.2–68.4), 60% (95% CI: 41–80) and 60% (95% CI: 41–78), respectively, in Asia.

Conclusion: The Knowledge, attitude, and practice towards COVID-19 infection prevention in pregnant women were low. It is suggested that health education programs and empowerment of communities, especially pregnant women, about COVID-19 continue with better planning. For future studies, we propose to investigate the KAP of COVID-19 in pregnant women in countries of other continents and geographical regions.