INPLASY PROTOCOL

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None declared.

Analysis of risk factors associated with adverse pregnancy in Chinese women: an updated meta-analysis

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Review question / Objective: This study explored the related risk factors of adverse pregnancy in Chinese women and provided some basis and guidelines for better prevention of adverse pregnancy and maintenance of women's health.
Study designs to be included: (1) Study type is a case-control trial with adverse pregnancy outcomes;(2) The subjects are Chinese pregnant women;(3) Articles published from May 2017 to May 2022 were included in the study.(4) The literature language is only English;(5) The risk factors involved one or more of the pregnant women's delivery, number of delivered children, education level, pregnancy weeks, gestational diabetes mellitus, smoking, and age.

INTRODUCTION

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Condition being studied: Expected adverse pregnancy outcomes include premature birth, macrosomia, low birth weight in infants, stillbirths, abortions, and placental abnormalities, which seriously affect the physical and mental health of pregnant women and neonates and have become a hot issue of global concern. Babies born under adverse pregnancy conditions may also risk nerve damage, respiratory diseases, vision and hearing disorders, future developmental delay, mental retardation, and cerebral palsy . Therefore,

there is an urgent need to reduce the risk of adverse delivery outcomes by controlling risk factors for adverse pregnancies or monitoring and intervening in high-risk pregnant women. Studies have shown that age, obesity, gestational age, number of pregnancies, number of fetuses (i.e., the number of females giving birth), gestational diabetes mellitus, and education can all lead to adverse pregnancy outcomes

This study analyzed the risk factors of adverse pregnancy among Chinese women in recent years through a literature review. The related factors were systematically summarized, and the adverse pregnancy outcomes were explored through meta-analysis to guide pregnancy and perinatal care and facilitate the subsequent development of appropriate interventions to reduce the incidence of adverse pregnancy.

METHODS

Participant or population: Poor pregnancy in Chinese women.

Intervention: To search for risk factors associated with adverse pregnancy in Chinese women.

Comparator: Through literature review, this study analyzed the risk factors of adverse pregnancy in recent years. The relevant factors were systematically summarized and the adverse pregnancy outcome was discussed by meta-analysis.

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Eligibility criteria: Documents meeting the inclusion and exclusion criteria.

Information sources: MEDLINE, Embase, PubMed, and Cochrane databases.

Main outcome(s): Pregnancy frequency, parity, education level, gestational age, GDP, smoking.

Quality assessment / Risk of bias analysis: RevMan 5.3 software was used to assess the risk of bias in the included studies/ Funnel plot was used to evaluate the publication bias of the included literature.

Strategy of data synthesis: Data were extracted from each enrolled study with prespecified tables and summarized in tables containing (i) article identification, (ii) method, (iii) outcome measures, and (iv) results. It was generally considered that the p-value < 0.05 and/or the ratio effect measurement [relative risk (RR), ratio (OR), or risk ratio (HR)] to have a 95% confidence interval (CI) and excluded one as statistically significant. When a ratio or ratio effect measure is not reported, and raw data are available, the effect measure is calculated by the author. Meta-analyses were conducted when the raw data from at least three studies addressed specific and similar topics related to adverse pregnancy-related factors.

Statistical analysis was performed using the Review Manager software (RevMan5.3 Version 5.3). Results expressed as mean difference IV (MD) or ratio (ORs) had a 95% confidence interval (CI), and p 0.05 and I2 < 50%), the fixed-effect model was used. Otherwise, the data are considered heterogeneous, using a random effect model.

Subgroup analysis: None.

Sensitivity analysis: None.

Country(ies) involved: China (The Fourth Affiliated Hospital, Zhejiang University School of Medicine).

Keywords: adverse pregnancy; Chinese women; risk factors; meta-analysis.

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