

# LUARAN MATERNAL DAN PERINATAL PADA IBU HAMIL DENGAN OBESITAS

(A SYSTEMATIC REVIEW)

## ABSTRAK

**Latar Belakang:** Obesitas merupakan masalah pandemik global dengan prevalensi yang terus meningkat, yaitu 42.4% dalam 2017 – 2018 di dunia, dan di Indonesia meningkat dari 14,8% pada 2013 menjadi 21,8% pada 2018 (Craig *et al*, 2020; RISKESDAS, 2018). Kondisi tersebut berdampak buruk pada hasil luaran kehamilan. Pada ibu, beresiko mengalami preeklampsia, *Gestational Diabetes Mellitus* (GDM), dan lain sebagainya. Sedangkan pada janin, komplikasi terburuknya yaitu pertumbuhan janin terhambat dan kematian janin.

**Tujuan:** Menganalisis luaran maternal dan perinatal pada ibu hamil dengan obesitas.

**Metode:** Penelitian ini berupa *systematic review* pada 15 *cohort study*, yang dianalisis kualitasnya menggunakan *Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Cohort study*. Pencarian jurnal dilakukan dalam: Scopus, Cochrane Library, Science Direct, PubMed, dan Google Scholar. Proses pencarian tersusun sistematis mengikuti alur PRISMA. Penelitian yang diambil merupakan *fulltext literature* dengan *effect size: Odds Ratio (OR)* dan *Confident Interval (CI)* serta memiliki data luaran maternal dan perinatal. *Non-research study* dan *systematic review* lainnya tidak digunakan. Sampel penelitian adalah ibu dengan kehamilan tunggal. Selanjutnya, dikelompokkan dalam kategori obesitas dan *super-obese*. Luaran maternal dan perinatal dianalisis menggunakan *software Comprehensive Meta-Analysis (CMA)* untuk mengetahui hubungan yang terbentuk.

**Hasil:** BMI obesitas dan *super-obese* berhubungan dengan munculnya *preeclampsia* (OR: 3,193 95% CI: 2,25 – 4,54), *Gestational Diabetes Mellitus* (GDM) (OR: 2,33 95% CI: 1,22 – 4,45), *Sectio Caesarea* (SC) (OR: 1,87 95% CI: 1,80 – 1,93), dan *Gestational Hypertension* (OR: 6,14 95% CI: 1,61 – 23,36). Sedangkan *Induction of labour* hanya berhubungan dengan BMI *super-obese* (OR: 3,34 95% CI: 2,06 – 5,43). BMI obesitas dan *super-obese* juga secara signifikan berhubungan dengan munculnya *macrosomia* (OR: 6,71 95% CI: 1,49 – 30,2) dan *NICU admissions* (OR: 1,47 95% CI: 1,05 – 2,08). Sedangkan *stillbirth* (OR: 1,43 95% CI: 1,24 – 1,65) dan *Low Birth Weight (LBW)* (OR: 0,75 95% CI: 0,57 – 0,99) hanya berhubungan secara signifikan dengan BMI obesitas.

**Kesimpulan:** Obesitas merupakan faktor resiko terjadinya *preeclampsia*, *Gestational Diabete Mellitus* (GDM), *Sectio Caesarea* (SC), dan *Gestational Hypertension* (GH) pada ibu, serta meningkatkan resiko terjadinya *macrosomia*, *stillbirth*, *Low Birth Weight* (LBW), dan *NICU admissions* pada janin.

**Kata Kunci:** obesitas, luaran maternal, luaran perinatal

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**ABSTRACT**

**Background:** Obesity is a global pandemic problem with an increasing prevalence that is 42,4% in 2017 – 2018 in the world. Indonesia also has an amount of increasing prevalence from 14,8% in 2013 to 21,8% in 2018 (Craig et al, 2020; RISKESDAS, 2018). This condition will adversely affect pregnancy outcomes. The mother herself is at risk of experiencing preeclampsia, Gestational Diabetes Mellitus (GDM), and so on. Whereas for the fetus, the worst complications are stunted fetal growth and fetal death.

**Objective:** To analyze maternal and perinatal outcome on mother with obesity.

**Method:** A systematic review of 15 cohort studies, that had been passed the quality assessment process using 'Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Cohort study'. The searching process was carried out through: Scopus, Cochrane Library, Science Direct, PubMed, and Google Scholar, and well-reported following the PRISMA diagram. The study used is full-text literature with Odds Ratio (OR) and Confident Interval (CI) as the effect size, which includes all single pregnancies and were also available for maternal and perinatal outcomes data. Non-research study and other systematic reviews were excluded. This study used all women who experienced a single pregnancy as a sample. Furthermore, they categorized as obesity, and super-obese. The maternal and perinatal outcomes will be analyzed using Comprehensive Meta-Analysis (CMA) software to determine how deep the effect to the outcomes.

**Results:** Obesity and super-obese were significantly associated with preeclampsia (OR: 3,193 95% CI: 2,25 – 4,54), Gestational Diabetes Mellitus (GDM) (OR: 2,33 95% CI: 1,22 – 4,45), Sectio Caesarea (SC) (OR: 1,87 95% CI: 1,80 – 1,93), and Gestational Hypertension (OR: 6,14 95% CI: 1,61 – 23,36). While Induction of labor is only related to the super-obese (OR: 3,34 95% CI: 2,06 – 5,43). In perinatal outcome, obese and super-obese BMI were significantly associated with the incidence of macrosomia (OR: 6,71 95% CI: 1,49 – 30,2) and NICU admissions (OR: 1,47 95% CI: 1,05) – 2,08) in the fetus. Meanwhile, the incidence of stillbirth (OR: 1,43 95% CI: 1,24 – 1,65) and Low Birth Weight (LBW) (OR: 0,75 95% CI: 0,57 – 0,99) were significantly associated with BMI obesity in pregnant women.

**Conclusion:** Obesity is a risk factor for preeclampsia, Gestational Diabetes Mellitus (GDM), Sectio Caesarea (SC), and Gestational Hypertension (GH) in mothers, as well as increasing the risk of macrosomia, stillbirth, Low Birth Weight (LBW), and NICU admissions in the fetus.

**Keywords:** obesity, preeclampsia, maternal outcomes, perinatal outcomes.