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The Negative Impact of Teen Pregnancy: Scoping Review

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ABSTRACT

Adolescent pregnancy has now become a widespread problem that occurs in various countries, both in developing and developed countries. Adolescent pregnancy can have a negative impact on the health of the teenager itself and is one of the causes of the high maternal mortality rate. This study aims to find out the literature related to the negative impact of teenage pregnancy. The review uses methods that are compliant with *the PRISMA Sc-R Guidelines*, the focus of the review is determined by keywords, inclusion and exclusion criteria, the search for articles uses relevant databases, and the selection process is described in *the PRISMA* flowchart. Of the 450 articles selected according to the inclusion and exclusion criteria, 10 articles were reviewed in this study, five themes were found, namely: Anemia in pregnancy, Premature birth and BBLR, Preeclampsia/eclampsia, Psychological disorders and neonatal maternal death. Adolescent pregnancy has a significant negative impact on maternal health and causes death for both mother and baby.

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INTRODUCTION

Teenage pregnancy is defined as pregnancy in girls aged 10-19 years (Ganchimeg *et al*., 2014). According to WHO (2016) teenage pregnancy has become a global problem occurring in high, middle and low-income countries (Blum & Gates, 2015). It is estimated that about 11% of births worldwide originate from teenage pregnancies aged 15-19 years each year, and more than 90% of these births occur in low- and middle-income countries (Ganchimeg *et al*., 2013). Teenage pregnancy and childbirth also cause about 23% of all disabilities and diseases worldwide (Holness, 2015).

The health of adolescent mothers is a special concern among adolescents who are pregnant or parenting. Teenage pregnancy is a major contributor to maternal and child mortality, health problems and the occurrence of intergenerational poverty (Kiani *et al*., 2019). Pregnancy complications cause the deaths of about 70,000 adolescent girls in developing countries each year. The Maternal Mortality Rate (MMR) is the number of maternal deaths during pregnancy, childbirth and postpartum in every 100,000 live births (Van Veen *et al*., 2015).

In Indonesia, AKI has decreased from 359 in 2012 to 305 in 2015 but this is still far from the target of the Sustainable Development Goals (SDG's) or Sustainable Development Goals (SDGs) in reducing the maternal mortality rate (MMR) globally to less than 70 per 100,000 live births by 2030, the Neonatal Mortality Rate (AKN) decreased from 20 per 1,000 live births in 2002-03 to 15 per 1,000 live births and the Infant Mortality Rate (AKB) is from 35 per 1,000 live births as a result of SDKI 2002-03 to 24 per 1,000 live births in 2017 (SDKI, 2017).

Adolescent pregnancy has a risk associated with low birth weight babies (less than 2500 g), neonatal death due to acute infections, sudden infant death syndrome, and maternal death. Other medical complications include anemia, malaria, HIV, sexually transmitted infections (STIs), postpartum bleeding, mental disorders (especially depression), maternal weight gain, prematurity (birth less than 37 weeks) and pregnancies triggered by hypertensive pregnancy, these rates are two to three times higher than those of adult women. Social problems associated with teenage pregnancy

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include poverty, unmarried status, low education levels, smoking, drug use, inadequate prenatal care and dropping out of school (Holness, 2015).

METHOD

This Scoping Review process is carried out in accordance with the Guidelines for *Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Review* (PRISMA-ScR) (Tricco *et al*., 2018).

Inclusion and Exclusion Criteria

Table 1. Inclusion and Exclusion Criteria

No.	Aspects	Inclusion Criteria	Exclusion Criteria
1	Article Characteristics	• *Original Research* • Articles published in United Kingdom and Indonesian • Articles published in the period 01 January 2011 to 30 October 2021 • All design studies	• *Grey literature* includes *conference papers, conference proceedings*, theses/dissertations, books, *guidelines* and other *papers* that are considered grey *literature* • *Reviewed* Article
2	Participants	Population: All pregnant women aged 10-19 years	Adult pregnant women
3	Study Focus	Articles that discuss the negative impact of teenage pregnancy	

Search Strategy

To identify the relevant articles in this *review*, the first step for a search strategy will start with developing keywords that focus on "*Adolescent*" and "*Pregnancy*" and "*Negative Outcomes*". Keywords are developed by searching for synonyms and phrasing keywords. The second step is to enter keywords into the search engine using three databases: PubMed, Science Direct and EBSCOhost. Boolean operators (*AND* and *OR)* will be used to combine or exclude keywords in the search, resulting in more focused and relevant results, then perform a filtering process by specifying the search time range, selecting a title/abstract to find relevant results related to the mentioned keyword. The process of searching for this article will be applied the same to each database.

Article Selection

All articles that have been identified using the search strategy described, the search results from the three databases will be stored and filtered in Zotero's Reference Management. From the three databases, 450 articles were found. The screening process began by removing duplicates, and 152 duplicate articles were found. A total of 298 articles were screened through title and abstract, and 210 irrelevant articles were found. Furthermore, 88 articles were screened in fulltext and 78 articles were found that did not meet the inclusion criteria. So that the articles used in this study are as many as 10 articles. The finding of the number of articles and the filtering process will be described in figure 1. PRISMA *Flowchart* below.

Critical Appraisal

Critical appraisal is a step to determine the quality of an article to be used. The tool chosen to assess the quality of articles is the *Joana Brigs checklist* from *the Joana Brigs Institute.*

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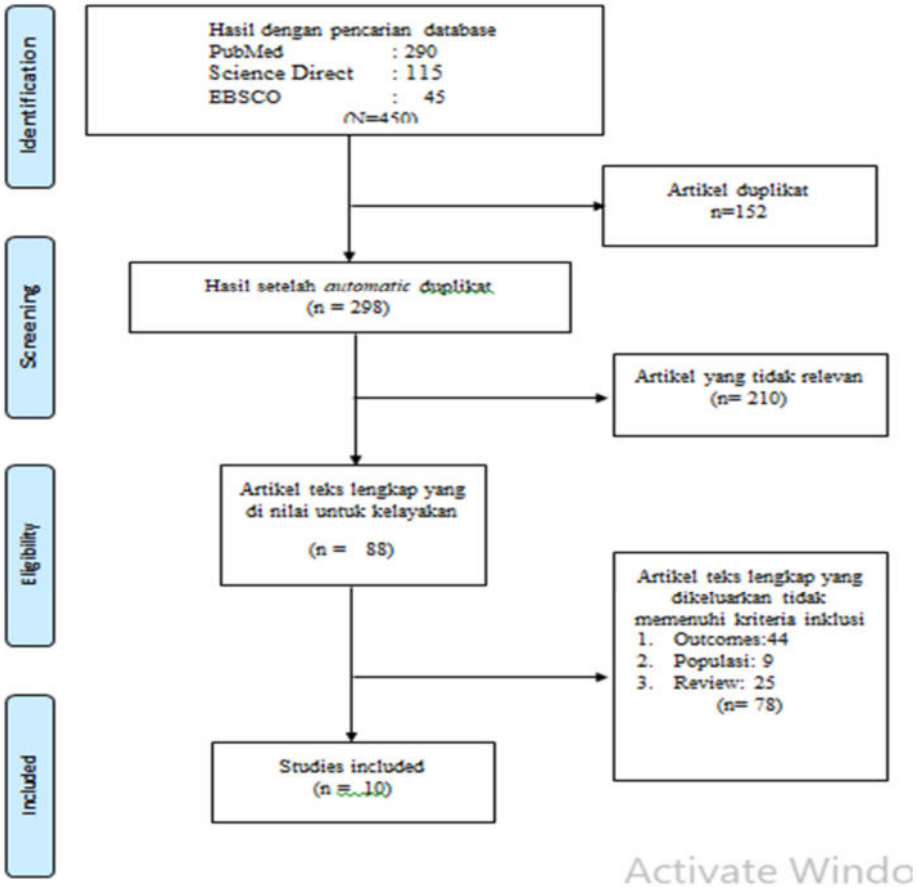

Figure 1. PRISMA *Flowchart*

RESULTS AND DISCUSSION

Anemia in Pregnancy

From the results of the review, three articles stated that pregnancy in adolescents can cause anemia during pregnancy. Adolescent pregnancy is recognized to be almost three times more likely to experience anemia, this is due to a lack of information and knowledge about the importance of nutrition during pregnancy (Pun & Chauhan, 2011). Anemia in adolescent mothers can also be caused due to the immaturity of the mother's condition during pregnancy (Shah *et al*., 2012) and caused by economic factors, in general, many adolescent mothers come from families with low economic conditions so that nutritional adequacy cannot be fulfilled during pregnancy *(Moraes et al*., 2018).

Premature Pregnancy and BBLR

From the results of the review, four articles stated that pregnancy in adolescents is at risk of experiencing premature pregnancy and BBLR (Mangeli et al., 2018; Shah et al., 2012). The increased risk of preterm labor and BBLR is associated with uterine biological immaturity or cervical shortness (Rasheed et al., 2011). Adolescent pregnancy is also recognized to cause three times more preterm pregnancies, this is associated with the incidence of anemia in adolescent mothers during their pregnancies (Pun & Chauhan, 2011). The results of the review also stated that pregnancy in

adolescents is at risk of experiencing premature pregnancy and BBLR four times due to nutritional inadequacy during pregnancy (Moraes et al., 2018).

Pre-eclampsia and Eclampsia

The results of the review stated that five articles stated that teenage pregnancy can cause a high incidence of preeclampsia and eclampsia. Teenage pregnancy can cause twice the occurrence of hypertension during pregnancy leading to the risk of preeclampsia (Rasheed *et al*., 2011). The results of the study also found that teenage pregnancy is forty times more likely to occur preeclampsia than adult age (Moraes *et al*., 2018). Other research results also found the same thing that teenage pregnancy will be at high risk of having an impact on pregnancy with preeclampsia (Karataşlı *et al*., 2019; Mangeli *et al*., 2018; Shah *et al*., 2012). The increased risk associated with teenage pregnancy is caused by factors such as poor economic conditions, cultural practices, low education, inadequate number of ANC visits, delays and inaccuracies in prenatal care, marital status, smoking and drug use (Kiani *et al*., 2019).

Psychological Disorders

Five articles stated that teenage pregnancy has a bad impact on the mother's psychology. The results of the study stated that most teenage mothers experienced what is called stigmatization, feeling isolated, ostracized and ashamed from society, the onset of a desire to terminate a pregnancy, and suicidal thoughts. This is considered a manifestation of fear, psychological burden and difficulties due to her pregnancy (Astuti *et al*., 2019). Other psychological problems that arise among adolescent mothers are fear and anxiety (due to lack of motherhood), regret (due to unwanted pregnancy or lost opportunities), shame (due to lack of motherhood or attempts to have an abortion), depression, and marital conflict (due to husband's failure to understand and support them) (Mangeli *et al*., 2018). Passive acceptance of pregnancy by teenage mothers states that, when getting pregnant is against their personal desires, they accept the pregnancy because of the pressure they feel from their family and the frustration and regret they feel in connection with their pregnancy (Moridi *et al*., 2019).

Research conducted by (Wilson-Mitchell *et al*., 2014) stated that seven out of 30 participants (23%) interviewed experienced psychological distress and were referred for psychological support. Two teenage mothers (6.6%) showed suicidal ideation or suicidal thoughts. Most participants also expressed anger and regret for marrying so early, disrupting their plans to pursue education, experiencing difficulties due to shouldering responsibilities when they were young, their rights as mothers not being respected, and maternal ambivalent feelings arising from mixed feelings about the desire to have children combined with a heightened sense of responsibility and doubts about their ability to be a good mother. good (Al-Kloub *et al*., 2019).

Studies have shown that up to 16% of women's pregnancies are likely to suffer from antenatal depression. In adolescents, the prevalence of antenatal depression has been estimated to be between 16% - 44%, almost twice as high as that of pregnant adult women and non-pregnant adolescents. Longitudinal studies have shown that depressive symptoms among pregnant adolescents become more severe in the second and third trimesters, recent data suggest that adolescents experiencing depression during pregnancy can be independently associated with subsequent pregnancies (McClanahan, 2009).

Maternal and Neonatal Deaths

The results show that teenage pregnancy is often associated with poor reproductive outcomes, stunted fetal growth and a high risk of maternal and neonatal death. Neonatal maternal mortality is widely associated with the occurrence of bleeding in the mother during pregnancy and childbirth

(Moraes *et al*., 2018). Adolescence has always been considered a public health issue that must be considered comprehensively, involving adolescent mothers and the problems that surround them because teenage pregnancy produces serious consequences for two aspects of maternal and child health (Azevedo *et al*., 2015).

CONCLUSION

Adolescent pregnancy has a significant negative impact on the health of the mother and baby. The results of the review showed that teenage pregnancy can cause anemia during pregnancy, premature pregnancy and BBLR, preeclampsia and eclampsia, psychological disorders and maternal and neonatal death.

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