

## The Role of Accompaniment in Reducing Anxiety of Pregnant Women Ahead of Childbirth

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### ABSTRACT

Anxiety during pregnancy, particularly approaching childbirth, is a common psychological condition that may negatively affect maternal well-being and fetal outcomes. Elevated anxiety has been associated with adverse consequences such as prolonged labor, increased operative delivery, and higher risk of preterm birth. Therefore, an adequate support system including partners, family members, and healthcare providers plays a crucial role in helping pregnant women cope with emotional distress and enhancing childbirth readiness. This study aims to examine the role of support systems in reducing anxiety among pregnant women through a systematic review approach. Literature was searched across major databases, including MEDLINE, Embase, and Google Scholar, using keywords related to pregnancy anxiety, social support, partner support, and psychological interventions. Eligible studies were original research articles published in English or Indonesian between 2000 and 2023, available in full text. Findings from the included studies were synthesized narratively. The review indicates that partner (husband) support is consistently associated with lower anxiety levels, improved maternal confidence, and better preparedness for childbirth. Family support, counseling, and educational interventions also contribute to increased self-efficacy and adherence to antenatal care. In conclusion, a strong and coordinated support system is essential in mitigating anxiety during pregnancy and promoting positive maternal outcomes.

#### Keywords:

Pregnancy Anxiety, Support System, Partner Support, Family Support, Social Support.

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## 1. INTRODUCTION

Anxiety experienced by pregnant women before childbirth is a complex phenomenon influenced by various factors, ranging from physiological to psychological and sociocultural [1]. This anxiety can manifest in behaviors ranging from silence to crying, especially in pregnant women who lack mental and physical preparation to face the delivery process. This is in line with the results of the initial survey at the Baiturrahman Health Center, where five out of seven trimester III pregnant women reported anxiety and fear before childbirth, mostly due to a lack of knowledge about how to face and overcome the anxiety, especially in the first pregnancy [2]. This excessive fear and anxiety have the potential to trigger various complications during labor, including premature labor, longer labor duration, and even the risk of operative procedures. In addition, unresolved anxiety can disrupt the mother's concentration during childbirth, endanger both the mother and baby, and potentially cause death [3]. In the United States, 21,9% of 35,539 pregnant women experience anxiety before childbirth, whereas in Indonesia, the prevalence of anxiety ranges between 10-25% for vaginal delivery and 15-25% for cesarean delivery, indicating that this anxiety is a significant global health problem [2]. The psychological condition of mothers who are not ready to face childbirth can trigger long labor, contributing to the high maternal mortality rate in Indonesia [4]. Psychological changes such as excessive anxiety, worry, and fear can complicate the labor process, causing muscle tension in the birth canal, which hinders the opening and development of labor [5]. This anxiety is estimated to affect approximately 15-23% of pregnant women, with a higher prevalence reaching 20% or more in developing countries such as Indonesia, where 28,7% of pregnant women in the third trimester reported experiencing anxiety [3]. This anxiety is not just an emotional response, but also an unpleasant psychological condition that arises due to physiological changes and causes instability of psychological conditions, especially in primigravida who may feel worried about various aspects of childbirth, such as pain or the

condition of their baby. This anxiety can also be caused by fear of the death of oneself or the baby, which is further aggravated by a lack of knowledge about the risks of childbirth. Studies show that uncontrolled anxiety in pregnant women can increase the risk of premature birth and miscarriage, ultimately contributing to an increase in maternal mortality and morbidity [6]. Anxiety during pregnancy that is not handled properly has the potential to cause adverse physical and psychological effects, not only for the mother but also for the fetus; it can even cause serious complications, such as maternal death. This excessive feeling of fear, worry, and anxiety can also trigger various negative effects on the body, such as increased heart rate, muscle tension, and blood pressure, which can cause obstetric emergencies such as preeclampsia and eclampsia [7]. Uncontrolled anxiety can trigger an increase in catecholamine levels, which can further disrupt blood flow to the uterus and placenta as well as reduce oxygen supply to the fetus, increasing the risk of neonatal asphyxia and even infant death [7]. The prevalence of anxiety in pregnant women in Indonesia is quite high, with 53.58% of multigravidas not experiencing anxiety, 18.85% experiencing mild anxiety, 10.77% moderate anxiety, 10.38% severe anxiety, and 6.15% very serious anxiety, while primigravidas generally experienced moderate to severe anxiety [6]. Excessive anxiety in pregnant women can also cause various other serious complications, including postpartum bleeding, infection, and preeclampsia, which are the leading causes of maternal death in Indonesia [8]. This anxiety can also have a negative impact on the growth and development of the fetus, potentially causing complications of pregnancy and childbirth and even triggering the death of the mother and child [9]. This high level of anxiety in pregnant women has the potential to cause adverse effects on the mother and fetus, including the occurrence of BBLR, premature birth, chromosomal spontaneous abortion, and obstacles to childbirth and pregnancy complications. Research shows that primigravida mothers have a higher level of anxiety than multigravida mothers because the experience of pregnancy and childbirth is something new that they have never felt before [10]. Furthermore, excessive anxiety in pregnant women can cause significant psychological changes, including stress, depression, and trauma, all of which can adversely affect the health of the mother and fetus [11]. This mental-emotional burden can further exacerbate physical ailments, thereby increasing the risk of adverse pregnancy outcomes including hypertension, which was reported in 27.1% of cases according to the Indonesian Health Demographic Survey in 2013. Moreover, this heightened anxiety can induce physiological responses that lead to stunted fetal growth and weakened uterine muscle contractions, thereby increasing the risk of premature birth [9]. The maternal mortality rate in Indonesia remains a significant concern, with figures indicating 189 deaths per 100,000 live births in 2020, exceeding rates in neighboring Southeast Asian countries and highlighting the urgent need for effective interventions [12]. Furthermore, between 2022 and 2023, Indonesia saw an increase in maternal deaths from 4,005 to 4,129, indicating a persistent challenge to maternal health outcomes [12]. This alarming trend underscores the critical necessity for comprehensive support systems, including psychosocial interventions and continuous pendampingan (accompaniment), to mitigate anxiety among pregnant women and ultimately improve maternal and neonatal health outcomes [6], [13]. The implementation of comprehensive maternal support programs, therefore, is paramount in addressing the multifactorial nature of maternal anxiety and its downstream effects on pregnancy outcomes [6], [14]. Such programs can significantly improve maternal readiness for childbirth by fostering mental and physical preparedness, thereby reducing the likelihood of adverse events and improving overall maternal well-being [15].

## 2. METHOD

This systematic review aims to synthesize existing evidence on the effectiveness of maternal pendampingan programs in reducing anxiety among pregnant women facing childbirth. This review will identify, critically appraise, and synthesize findings from relevant studies to provide a comprehensive understanding of effective strategies. It will focus on various forms of support, including psychological, emotional, and informational interventions, to assess their impact on maternal anxiety levels and associated perinatal outcomes. The methodology will involve a systematic search of several electronic databases to retrieve relevant studies published within a specified timeframe. Specific inclusion and exclusion criteria will be applied to select studies that align with the research question, followed by a rigorous data extraction and synthesis process to identify key themes and assess the overall quality of the evidence. The selected studies will undergo a thorough quality assessment using established appraisal tools to ensure the reliability and validity of the synthesized findings. This systematic approach ensures that only high-quality evidence informs the conclusions drawn regarding the efficacy of pendampingan interventions in mitigating maternal anxiety during pregnancy and childbirth [16]. Furthermore, a meta-analysis will be conducted if suitable studies are identified, allowing for a quantitative synthesis of effect sizes to determine the overall impact of such interventions [17]. This systematic review intends to adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines to ensure transparency and reproducibility in its reporting [18]. This structured approach will facilitate the identification of best practices and gaps in current knowledge, thereby informing future research and policy development in maternal healthcare. The outcomes of this review are expected to provide clear recommendations for healthcare providers and policymakers on implementing evidence-based pendampingan strategies to improve maternal mental health during the perinatal period, thereby contributing to the reduction of maternal and infant mortality rates [16]. The search strategy will systematically explore electronic databases such as MEDLINE, Embase, and Google Scholar to identify relevant studies [19]. This review will incorporate studies published in English and Indonesian from 2000 to 2023, focusing on interventions involving direct maternal support during pregnancy and childbirth [20]. We will also consider grey literature to capture a broader range of evidence, including reports and dissertations that

might not be formally published in peer-reviewed journals [21]. Studies conducted in both low- and middle-income countries and high-income countries will be considered to ensure a global perspective on maternal support interventions [22]. Studies will be excluded if they focus solely on pharmacological interventions, or if the primary outcome measured is not related to maternal anxiety or mental well-being during the perinatal period. Furthermore, only studies that implement a clearly defined intervention of "pendampingan" or similar psychosocial support will be included [23]. Two independent reviewers will screen titles and abstracts, followed by a full-text review of potentially relevant articles, resolving discrepancies through discussion or consultation with a third reviewer. Data extraction will be performed using a standardized form to collect relevant information, including study characteristics, participant demographics, intervention details, and reported outcomes related to maternal anxiety [8]. The methodological quality of included studies will be rigorously assessed using tools appropriate for their study design, such as the Cochrane Risk of Bias tool for randomized controlled trials or the Joanna Briggs Institute critical appraisal tools for other study types.

### 3. RESULTS AND DISCUSSION

The figure below summarizes the literature selection process according to the inclusion and exclusion criteria applied in this study. The selection was carried out systematically in several stages, from the initial identification of records to the final inclusion of eligible articles for analysis.

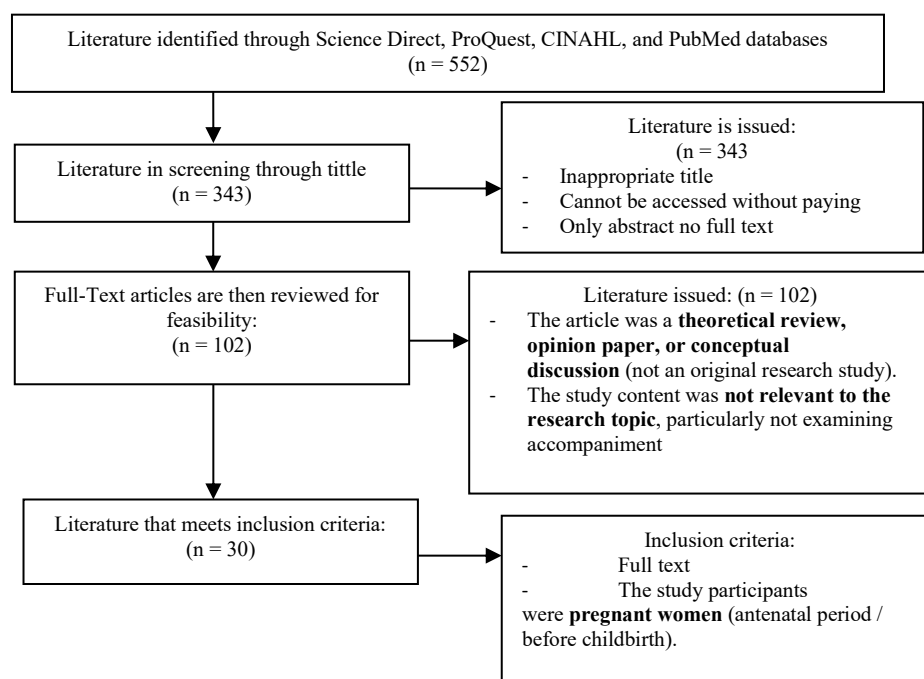


Figure 1. Flow Diagram of the Literature Selection Process

The subsequent findings will then be systematically organized and presented, detailing the effectiveness of various maternal support interventions in mitigating anxiety among pregnant women. This section categorizes and summarizes the identified interventions, highlighting their specific approaches and observed outcomes in reducing antenatal anxiety [24], [25]. It will also delve into the nuances of how different types of pendampingan, such as psychological counseling, educational programs, and peer support, influence maternal mental health [26]. Furthermore, the synthesis explores how contextual factors, such as cultural background and socioeconomic status, mediate the effectiveness of these interventions [22]. The analysis also identified common themes, effective components, and potential gaps in current pendampingan strategies to provide a holistic understanding of their impact. This review will also assess the efficacy of digital platforms, such as WhatsApp groups, in delivering childbirth counseling to reduce anxiety in primigravida, considering studies published between 2015 and 2021 [27]. This will include an examination of studies specifically from the Indonesian context to provide a localized perspective on intervention effectiveness [28]. This systematic review will also incorporate evidence from studies published since 2017 to ensure contemporary relevance regarding interventions in low- and middle-income countries, excluding those that do not demonstrate a robust search for evidence or are conducted in high-income settings [22].

The characteristics of the included studies will encompass their design, sample size, intervention duration, and the specific anxiety measurement tools used to allow for a comprehensive comparative analysis. This will also include an assessment of how various mHealth interventions have impacted the psychosocial health of pregnant women, considering both positive outcomes such as improved self-management and mixed results for anxiety and depressive

symptoms [29]. Furthermore, the synthesis details the geographical distribution of the studies, with a particular focus on those conducted in low- and middle-income countries such as Nepal, India, Indonesia, and various African nations, to understand region-specific challenges and successes [16]. This will allow an in-depth examination of how different cultural and socioeconomic contexts influence the design and effectiveness of maternal support interventions. The analysis will further explore the influence of women's groups on antenatal behaviors and mortality reduction, along with the effectiveness of mHealth interventions in improving dietary intake and overall healthcare utilization among pregnant women [16].

The identified interventions will span a range of modalities, including psychosocial support, educational programs, and digital health initiatives. These include mind-body interventions, social support, and remote delivery methods such as web-based or digital applications [30], [31]. Specifically, mHealth interventions, including text messaging, voice messages, and mobile phone calls, have been examined for their efficacy in improving dietary intake and overall health literacy among pregnant women [16]. Such interventions have shown promise in enhancing maternal healthcare utilization and addressing various aspects of well-being, including anxiety and depression [16], [32].

### **The Effectiveness of Mother's Assistance in Reducing Anxiety**

This section presents a comprehensive synthesis of the evidence evaluating the impact of various maternal support interventions on anxiety levels during pregnancy and childbirth. It details specific findings on how different types of pendampingan interventions, such as educational programs, counseling, and peer support, have demonstrated efficacy in reducing maternal anxiety. The discussion will further explore the mechanisms through which these interventions operate, identifying key components that contribute to their success, particularly in enhancing healthcare utilization and adherence to antenatal care among pregnant women [22], [16]. For instance, mobile health applications and psychosocial interventions have shown promise in improving maternal care uptake in low- and middle-income countries by addressing sociocultural and economic barriers [22]. Moreover, the integration of family support, even amidst challenging circumstances such as the COVID-19 pandemic, significantly contributes to mitigating maternal anxiety during childbirth by fostering a more conducive emotional environment [33]. The effectiveness of these interventions is often modulated by cultural and socioeconomic factors, necessitating context-specific approaches to maximize their impact [22], [16]. Additionally, interventions that facilitate access to healthcare services, such as emergency transportation or educational community outreach, have been shown to improve maternal care utilization and reduce anxiety by enhancing accessibility and knowledge [22].

### **Factors that Affect the Effectiveness of Guidance**

These factors may include the nature and intensity of the support provided, the cultural relevance of the intervention, and the individual characteristics of the pregnant women, such as parity and previous experiences with childbirth [34]. For example, the involvement of male partners has been identified as a critical determinant in improving skilled birth attendance and postnatal visits, although its impact on early antenatal care initiation remains less consistent [16]. Actively engaging male partners and providing them with adequate information can heighten awareness of pregnancy-related risks and facilitate financial or psychological support, consequently increasing healthcare service uptake among pregnant women [16]. Furthermore, interventions that integrate social support from multiple sources, including students and cadres, alongside family and husband support, significantly enhance the acceptance and success of antenatal care programs [35]. The role of healthcare professionals, particularly midwives, in these support systems, while often limited, presents a significant opportunity for enhancement, as their involvement can further elevate the quality of care and support provided [35]. Moreover, educational level, employment status, and access to media are crucial in influencing pregnant women's engagement with antenatal care and support activities [36]. The level of self-efficacy or confidence in childbirth, regardless of parity, also plays a crucial role, as a lack of self-confidence can trigger anxiety even with extensive support [37]. Conversely, social support, encompassing emotional, instrumental, informational, and appraisal support, plays a pivotal role in mitigating prenatal stress and enhancing maternal wellbeing [20]. This comprehensive support network, involving family members, especially husbands, can significantly reduce maternal anxiety by increasing the frequency of antenatal care visits and enhancing overall health-seeking behaviors [16]. Husband's support, encompassing informational, assessment, instrumental, and emotional dimensions, is particularly vital, as it can positively influence a mother's attitude towards ANC visits and overall readiness for labor [38]. The presence of social support, particularly from partners, is demonstrably linked to increased maternal readiness for labor, often making women almost four times more prepared for childbirth [15]. This emphasizes the critical role of comprehensive support systems, particularly spousal support, in fostering a positive psychological state for expectant mothers [39]. Furthermore, encouraging the involvement of male partners in antenatal care can lead to a 4.5 times higher likelihood of pregnant women receiving care from medically trained providers, thereby improving overall maternal health outcomes [16].

Furthermore, interventions that actively involve male partners and provide comprehensive information can significantly increase awareness of pregnancy-related threats and the provision of financial or psychological support, consequently improving healthcare service uptake among pregnant women (Mzembe et al., 2023, p. 1758). These programs also empower women by increasing their decision-making capabilities regarding reproductive health and

family planning, which can further alleviate anxiety by fostering a sense of control and self-efficacy. The integration of continuous support, such as birth companions, has been acknowledged as a highly impactful strategy for reducing maternal anxiety and improving birth outcomes, particularly in low-resource settings [40]. Such support models not only alleviate anxiety but also enhance the overall birthing experience by providing emotional, physical, and informational assistance during labor and delivery.

## Discussion

The efficacy of such interventions also extends to increasing institutional deliveries, further underscoring the multifaceted benefits of male-partner involvement in maternal healthcare [16]. However, it is crucial to note that while partner accompaniment can significantly enhance healthcare utilization, merely having a partner present does not automatically translate to earlier initiation of antenatal care or a higher likelihood of receiving all recommended components [16]. The effectiveness of these interventions is also heavily influenced by the cultural context, socio-economic status of pregnant women, and accessibility of healthcare services [22]. Moreover, the quality and content of the support provided, rather than mere presence, are paramount in determining the positive impact on maternal anxiety and healthcare engagement [41], [1]. For instance, the active involvement of a husband can significantly alleviate anxiety during pregnancy and childbirth, as evidenced by studies indicating a reduction in anxiety levels among pregnant women who receive substantial spousal support [42]. This support extends beyond emotional reassurance to include practical assistance and shared decision-making, which are crucial for navigating the complexities of pregnancy and childbirth [22], [43]. This active involvement often translates into greater utilization of antenatal care services and an increased likelihood of receiving care from medically trained professionals, which are both critical for positive maternal and neonatal outcomes [16]. When partners actively engaged in prenatal meetings, a noticeable decrease in expectant mothers' stress levels was observed [44]. This engagement also contributes to enhanced self-esteem and improved maternal health outcomes, including shorter labor and reduced rates of surgical births [45]. Furthermore, active participation of male partners in maternal healthcare services has been shown to increase the likelihood of institutional deliveries by 3.19 times and postnatal care visits by 2.13 times, highlighting its broad impact on maternal health outcomes [16]. This comprehensive involvement also extends to a reduced risk of postpartum depression and improved utilization of maternal health services [44]. Collectively, these findings underscore the profound influence of comprehensive social and spousal support on both the psychological well-being of pregnant women and their engagement with essential healthcare services, ultimately leading to improved maternal and neonatal outcomes. However, it is essential to consider the broader socio-cultural context, as social norms often dictate women's roles within their households and families, influencing their mental and emotional states during pregnancy and their engagement with antenatal healthcare systems [46]. Therefore, interventions aimed at reducing maternal anxiety must consider these contextual factors, design strategies that go beyond mere education, and actively involve family members and male partners to promote positive health behaviors and facilitate access to care [22]. This comprehensive approach acknowledges that women are often not the sole decision-makers regarding their healthcare, with male partners and family members frequently holding significant sway over access and financial resources [22]. Thus, empowering men through targeted interventions to become informed and supportive partners is crucial for improving maternal health outcomes and reducing anxiety during pregnancy and childbirth [47]. Integrating family centered approaches, particularly those involving male partners, into maternal healthcare interventions is critical for enhancing healthcare utilization and improving maternal outcomes [22]. Approaches such as family centered maternity care aim to address the informational, social, emotional, and comfort needs of pregnant women and their families, thereby reducing anxiety and promoting adaptation during the perinatal period [48]. Training programs for fathers encompassing knowledge about maternal pregnancy through childbirth and beyond can serve as an effective solution, empowering fathers to provide crucial psychological support to pregnant women [49]. This support is vital for improving maternal-fetal attachment and alleviating anxiety, ultimately leading to better postpartum adjustment and increased adherence to healthcare advice [50]. Furthermore, instrumental support from family members, such as providing daily necessities and food, has been identified as a key factor in mitigating anxiety among pregnant women [51]. Moreover, incorporating educational modules and assistance that empower pregnant women and encourage family involvement has demonstrated effectiveness in reducing anxiety, thereby promoting active participation in improving maternal health [48]. This enhanced engagement is crucial, as women who perceive strong partner support often report higher satisfaction with their pregnancy experiences and better mental health outcomes (Sharma et al., 2023, p. 10). This holistic approach, integrating male partner involvement and comprehensive social networks, is crucial for fostering a supportive environment that effectively mitigates maternal anxiety and enhances overall maternal well-being during pregnancy and childbirth (Abraham & Meléndez-Torres, 2023, p. 8; Hadaro et al., 2023, p. 8). The presence of a supportive partner can significantly influence women's confidence in accessing healthcare facilities for antenatal care, thereby facilitating earlier initiation and consistent attendance (Johansson et al., 2020, p. 13).

## 4. CONCLUSION

Based on this systematic review, it can be concluded that support for pregnant women, particularly from partners, is an effective intervention in reducing anxiety levels during pregnancy and childbirth, as well as increasing the utilization of maternal healthcare services. Interventions involving the family, especially male partners, have been proven to facilitate positive health behaviors and support financial and emotional access to healthcare services. Research shows that husband involvement significantly increases the likelihood of delivery in a healthcare facility by 2.76 times [16]. This not only reduces the anxiety levels of pregnant women but also correlates positively with the quality of antenatal and postnatal care received, thereby optimizing overall maternal and infant health outcomes [48], [4]. While the reviewed studies illuminate the positive impact of partner involvement, many exhibit limitations, such as small sample sizes or a lack of randomized controlled designs, which could affect the generalizability and robustness of their findings.

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