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POSTPARTUM DEPRESSION AND THE RISK OF STUNTING AMONG CHILDREN IN INDONESIA: A LITERATURE REVIEW

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Abstract

Background: Postpartum depression was found to be linked to disrupted growth development patterns, particularly stunting. In Indonesia, challenges are found in correlating the two variables due to the lack of official data. The findings of this review may provide valuable initiatives for further research and intervention on maternal mental well-being. **Objective**: This study aims to review the correlation between postpartum depression and the risk of stunting, alongside the trends in Indonesia; and how it is compared with the global context. **Method**: We searched PubMed, Scopus, Taylor and Francis, and Google Scholar (2016-2026) for cross-sectional studies, cohort studies, systematic reviews, and meta-analyses examining the correlation between postpartum depression and stunting within a global and local context, alongside challenges faced by the healthcare system regarding postpartum depression. **Results**: Despite the lack of official data on postpartum depression, we found studies that examined positive correlations between depression and the risk of stunting in Indonesia. A higher risk of stunted children was found in mothers with postpartum depression. Several challenges in the Indonesian healthcare system were also found, these consist of lack of focus on mental health indicators, stigmatization of mental illnesses especially in mothers, a lack of access to maternal mental health care, and the limited training provided to healthcare workers on maternal mental health. **Conclusion**: Despite consistent evidence from multiple studies, Indonesia still faces major gaps in data, awareness, and mental health services for mothers; gaps that are worsened by stigmatization, and prioritization of physical over psychological healthcare. Integration of maternal mental health screening and support into existing mother-child health programs is recommended to mitigate stunting and improve child development outcomes.

Keywords: postpartum depression, maternal depression, stunting, Indonesia

Introduction

Postpartum depression (PPD), also known as perinatal depression is a mood disorder affecting individuals during pregnancy or until 1 year post-childbirth. As the name suggests, mothers with PPD show similar symptoms to people with depression, such as persistent sadness, lack of interest (anhedonia), low self-esteem, irritability towards infants, self-blame, and feelings of humiliation. Mothers with PPD also often experience disturbances in sleeping and eating patterns, but are especially marked by their difficulty bonding with their baby . It should be noted, however, that PPD is not the same as “baby blues”. Maternity blues (MB), also known as “baby blues”, is a temporary psychological state characterized by short-lived symptoms such as brief episodes of crying, irritability or emotional instability, sleeplessness, anxiety, reduced appetite, and impaired focus that occur during the initial days following childbirth.[1] MB begins during the first two to three days postpartum and resolves within 10 days, while PPD could last for longer than 10 days. MB has been considered to be a specific risk factor for PPD, along with the irreversible emotional and cognitive impairment for both the mother and the newborn.[2] The exact etiology and pathophysiology of PPD is not fully understood, but potential factors underlying this is likely multifactorial, with sources often citing genetic, hormonal, psychological, and social life as stressors that play a role in the development of PPD.[3]

Within the global context, the prevalence of PPD was found to be approximately 17.22% (95% CI 16.00-18.51) in a meta-analysis from 2021 that studied the prevalence in women from 80 countries. With the prevalence of PPD being affected by variables such as marital status, educational level, partnership, life stress, and living conditions.[4] A few studies in some provinces provide some information on the average prevalence of PPD in Indonesia. It ranges from 5.9%-59.2% according to various studies in different locations in Indonesia. A 2019 study in Jambi and a 2020 study in Bogor discovered the prevalence of PPD is 12.96% and 59.2%, respectively.[5,6] Based on data collected from the National Basic Health Research (Riskesdas) in 2018, a 2022 study found that the prevalence of PPD is 5,9%.[7] An aforementioned meta-analysis found the prevalence of PPD in Indonesia to be approximately 11.76%.[4] Unfortunately, there are not enough reliable studies nor reports that we can use to infer the exact national prevalence nor the national trends of PPD in Indonesia. The availability of PPD

data in Indonesia is limited because maternal healthcare tends to prioritize physical health over mental well-being. This gap in maternal mental health data is concerning, as maternal well-being plays a critical role in influencing early childhood development, including the risk of stunting.

Stunting is defined as the impaired growth and development that affect children due to poor nutrition. Clinically, this is diagnosed using a height-for-age Z-score (HAZ) chart, where a HAZ below the 2 standard deviations for age, sex, and population indicates stunting in the child [8,9]. Stunting is considered a chronic condition of malnutrition which if not managed results in short- and long-term health, and developmental consequences. Being a chronic condition, the risk factor of stunting starts as early as conception, until 2 years of age. This is commonly known as the first 1000 days, or 1000 *Hari Pertama Kehidupan* (1000 HPK) in Indonesian. The child's condition in their first 9 months of life in gestation will depend entirely on the mother's intake, alongside the mother's health. For example, mothers with chronic energy deficiency (CED) have a 1.6 times higher risk of raising a child with stunting. Meanwhile, the first 2 years will depend on the child's intake and health. Where for example, recurrent infections, alongside other acute malnutrition conditions such as wasting, will increase the risk of stunting in children. [10,11]

PPD was found to be linked to an increased risk of disrupted growth development in children, especially stunting within the context of this study. Children in their first years of life will be completely dependent on their parents for their needs, most importantly needs related to their health and nutritional intake were compromised if their mothers had postpartum depression. The symptomatology of depression makes mothers lose interest in their surroundings, which unfortunately also affects their children because of their disinterest in taking care of their children, decreasing stimulation and interaction between mother and child. Prolactin and oxytocin levels decrease in depressed women, compromising their breastmilk production alongside increasing the likelihood of pain during breastfeeding. This condition compromises the nutritional intake and, therefore, also the overall health of the child.[12,13]

This study aims to review the correlation between PPD and stunting, alongside the trends related to both conditions. This study hopes to gain more insight into the correlation

between PPD and stunting, especially in Indonesia, where precise national data on PPD is scarce.

Method

This study is a literature review of studies that examine postpartum depression and the risk of stunting (pathology, correlation, causation, etc.) alongside reports concerning the statistics of postpartum depression and stunting in Indonesia. The literature review employed a non-systematic approach to identify and extract relevant literature on the correlation between depression and the risk of stunting in Indonesia.

We searched four main databases: PubMed/MEDLINE, Google Scholars, Taylor and Francis, and Scopus for articles published from January 2016 to December 2026 for English and Indonesian-language publications with full text. Search strings and keywords include terms for postpartum depression ("postpartum depression" OR "perinatal depression" OR "maternal depression") with stunting ("stunting") and geographical terms ("Indonesia" OR "Southeast Asia" OR "Global South" OR "South Asia").

The inclusion criteria for the studies were peer-reviewed studies published in English or Indonesian that involved mothers and/or children aged 0-5 years, and examined the correlation between PPD/PND and stunting; studies discussing maternal depression were included due to the condition spanning into PPD/PND. The exclusion criteria were studies that specifically examined antenatal depression or pregnancy depression, alongside studies that examined malnutrition instead of stunting. Study designs that fulfill the inclusion criteria consisted of original research (quantitative, qualitative, or mixed-methods), clinical trials, systematic reviews, and meta-analyses. Case reports, literature reviews, non-peer reviewed articles, and unpublished studies were not included.

Results

A total of 8 studies from 17 studies, including case-control studies, cohorts, systematic reviews, and cross-sectional studies discussing the correlation between postpartum depression and the risk of stunting, both in Indonesia and globally, were included in this review. The author alongside co-authors were involved in the searching and screening process of the literature used, with the author then evaluating the key findings of the literature used,

and then writing it into the discussions. These studies primarily examined the factors surrounding postpartum depression and how it correlates to stunting, alongside the statistical evidence of how postpartum depression is associated with the risk of stunting. The studies that were not included were studies where the discussions were irrelevant to the main topic (e.g. discussions specifically on antenatal depression, or major depressive disorder), and studies that did not discuss stunting. Furthermore, the author and co-authors had curated recommendations upon key challenges from the literature review, as well as provided necessary proof-reading for the final article.

The overall results indicated not only a gap in the awareness of postpartum depression within the healthcare sector in Indonesia, but also the alertness of the healthcare sector in Indonesia knowing the dire effects of postpartum depression both toward the mother and child especially with such high prevalences of stunted children of depressive mothers as seen in the literature chosen below. This lack of alertness is reflected in the general lack of studies on postpartum depression and stunting in Indonesia, but also the absence of official statistics discussing the prevalence of postpartum depression.

Table 1. Key Findings of Literature Review

No	Author, Year	Title	Country	Design	Results	Key Findings
1.	Purwani, et al, 2019	Determinants of Childhood Stunting in Central Java, Indonesia: The Role of Maternal Mental Health and Child Health History	Indonesia	Case-control	• 82,4% of mothers with stunted children in this study was found to have poor mental health during the postpartum period (PPD) • Using bivariate analysis, mothers with PPD are more likely to have stunted children (OR = 5.6, 95% CI: 1.53–20.49, p-value = 0.01). • Using a logistic regression model, postpartum depression was a significant correlate, (OR = 5.155 (95% CI: 1.38–19.16, p-value < 0.05), suggesting an association with higher odds of stunting.	• Children of mothers experiencing postpartum depression may not receive adequate nutrition or responsive care, thereby increasing their risk of growth faltering.
2.	Josafat and Setiasari, 2025	Maternal Depression and Its Association with Various Aspects of Early Childhood Development in Indonesia: A Multidimensional Review	Indonesia	Systematic review	• Postpartum depression affects children's development from various dimensions, not just physical (e.g. stunting and malnutrition), but also socio-emotional (e.g. emotional regulation, mental stability), and cognitive development (e.g. difficulty to concentrate).	• Chronic depression in mothers was found to not only worsen their own health, but also significantly damage the quality of health of their children, with studies finding a positive correlation between postpartum and maternal depression with the risk of stunting. A high score on depression

No	Author, Year	Title	Country	Design	Results	Key Findings
						screening tools also increases the risk of stunting. ● The stigmatization of mental illnesses and the quality of neonatal care pose a challenge for Indonesia's healthcare system in highlighting the effects of postpartum depression. The scarcity of mental health care specifically for mothers presents as an obstacle to the treatment and prevention of PPD. Lack of training for workers regarding mental health care also worsens the prevailing challenges in mental health care for mothers in Indonesia.
3.	Tyas and Setyonaluri, 2022	Association between Maternal Mental Health and Child Stunting in Indonesia	Indonesia	Cross-sectional	● Results show the risk of stunting in children aged 0-59 months and aged 24-59 months from mothers with an increased CESD-10 score was found to be statistically significant (p-value < 0.05). ● In children aged 0-59 months, the risk of stunting was found to be 0.02 times higher, while in children aged 24-59 the risk was found to be 0.03 times higher	● Using a CESD-10 score to screen depression in mothers, it was found that the higher score a mother gets, the more significant the correlation, and also the higher risk it is for them to have a stunted child at ages 0-59 months, and ages 24-59 months. ● However, the risk of stunting was not found to be significant in children ages 0-23 months even when the mothers have a high CESD-10 score.

No	Author, Year	Title	Country	Design	Results	Key Findings
4.	Mhamane et al., 2024	Post-partum depression: Its association with IYCF practices and effect on child growth indicators in urban slums of Mumbai, India	India	Cross-sectional	• Observed in children below six months of age, it was found that bottle feeding practices, initiation of breastfeeding within 1 hour of birth, and exclusive breastfeeding for the first 2 days were associated with postpartum depression (PPD status) of the mother ($p < 0.05$). • Observed in children from six months of age up to two years, it was found that minimum meal frequency, minimum dietary diversity, zero consumption of fruits and green vegetables, and initiation of semisolid and soft food were statistically significant in association with the postpartum depression status of the mother ($p < 0.05$). • Results further showed that infants of depressed mothers are 20% less likely (OR = 0.20, 95% CI: 0.11–0.32, p-value < 0.05) to suffer from stunting compared to those whose mothers did not show depressive symptoms. Therefore, this implies that postpartum depression in	• PPD was associated with IYCF practices, including breastfeeding, complementary feeding, meal frequency, and dietary diversity. • Mothers experiencing postpartum depression were more likely to demonstrate feeding practices that differed from those of non-depressed mothers. • The study highlighted the importance of considering maternal psychological well-being when promoting optimal child nutrition and growth.

No	Author, Year	Title	Country	Design	Results	Key Findings
					mothers has an involuntary effect towards their child's growth.	
5.	Pertiwi and Pardede, 2024	*Pengaruh Kesehatan Mental Ibu Terhadap Status Gizi Anak di Indonesia* (The Influence of Maternal Mental Health towards The Nutritional Status of Children in Indonesia)	Indonesia	Cross-sectional	• The Odds Ratio (OR) of stunting in the respective age groups when mothers have PPD is 1.15 and 1.926. However, only stunted children aged 7-12 were found to be significantly correlated with mothers with PPD. • Prevalence of stunting was found to be higher in mothers with PPD, with a 42.11% prevalence in children ages 0-5, and 61.84% in children ages 7-12 respectively. • Other factors such as expenditure per capita, height, and age were found to be more significantly correlated to stunting in ages 0-5 (p-value < 0.05)	• Evidence from this study shows that there is a higher risk of stunting found in children raised by mothers with PPD. • The long term effect from the mother's mental health problems has been proven to be detrimental upon the child's growth and development, especially during The Golden Age period. However, the effect of impaired mental health in mothers towards stunting in children can only be seen in the long term period.
6.	Wemakor and Mensah, 2016	Association between maternal depression and child stunting in Northern Ghana: a cross-sectional study	Ghana	Cross-sectional	• The children of depressed mothers were more likely to be stunted compared to children of mentally sound mothers (OR = 3.57, 95% CI: 1.99–6.40, p-value < 0.001). • Upon adjustments to socio-demographic and child factors that	• The study discovered a correlation between maternal depression and stunting, with a higher risk of stunting found in children of depressed mothers. • Further findings discovered that depressed mothers tend to be

No	Author, Year	Title	Country	Design	Results	Key Findings
					were statistically significant in the prior bivariate analysis (maternal age, marital status, household wealth tertile, and child birthweight), the risk of stunting in children of depressed mothers decreased slightly. Nonetheless, it remains statistically significant (AOR = 2.48, 95% CI: 1.29–4.77, p-value = 0.0011)	younger, currently unmarried, living in a poor household, and have babies with low birth weight. • The authors suggest that depression may affect a mother's ability to provide adequate childcare, feeding, and health-seeking practices, thereby increasing the risk of poor child growth.
7.	Shriyan et al., 2023	Maternal depressiveness and infant growth outcomes: Findings from the MAASTHI cohort study in India	India	Cohort	• Infants born to mothers with depressive symptoms at birth had 1.7 times higher odds of stunting than infants born to mothers with no depressive symptoms (AOR = 1.72, 95% CI: 1.22–2.43, p-value < 0.05) after adjusting for confounders.	• Infants born to mothers experiencing depressive symptoms were more likely to exhibit stunting by one year of age. Evidence from this study suggests that postpartum depression assessed after six weeks of birth is associated with stunting. • The authors suggest that maternal depression may affect caregiving practices, mother–child interactions, and feeding behaviors, which can subsequently influence infant growth and development.
8.	Nurfurqoni et al., 2025	Family function, social support, postpartum depression, and	Indonesia	Cross-sectional	• The factors that have a significant role in the risk of stunting is found to be not only postpartum	• Family function is indirectly associated with stunting by acting as a buffer against depression during

No	Author, Year	Title	Country	Design	Results	Key Findings
		maternal parenting practices: their impact on infant growth			depression (p-value ≤ 0.05), but also maternal parenting practices (e.g. mother-son bonding, feeding practices, breastfeeding, etc.) which is also affected by both social support and postpartum depression.	pregnancy. Conversely, it has a direct influence on postpartum depression. • Social support was found to be the strongest predictor of parenting practices, influencing infant growth, alongside depression and stress in parents, especially mothers.

Discussion

How PPD Correlates to Stunting

As conceptualized by the World Health Organization, manifestations of stunted growth and development are heavily mediated by household conditions, such as maternal well-being, quality of care and nutritional adequacy, as well as household food and water safety. These immediate causes will have direct consequences towards the child. The community and environment acts as contextual macroforces which will influence the immediate causes. These include the political and economic state, agricultural and food systems that dictate dietary diversity, water, sanitary, and hygiene systems (WASH), cultural beliefs, education, and available healthcare systems. Ultimately, in an effort to reduce stunting among communities, multisectoral policies are required to improve the system towards children's wellbeing. [14]

Many previous studies have tried to establish possible mechanisms linking maternal depression (including PPD) to poor child growth and development, which includes infant malnutrition that can progress towards stunting. Environmental factors, especially socioeconomic (education, household income/poverty, culture, etc.), political influence, and food insecurity are vital in terms of increased risk of maternal depression. Following this, low- and middle-income countries would be the most at risk.[15] The environment could also have a direct effect on causing impairments in child growth on its own.

Biological mechanisms can both cause and be caused by maternal depression. One prominent example of this is the mother’s nutritional intake. Both micro and macronutrient consumption, namely vitamin D, polyunsaturated fatty acids (PUFA), iron, and zinc have been recognized to be associated with depressive symptoms found in mothers.[16] In turn, being in a poor mental state would negatively affect mother–infant interactions.

The relationship between mother and infant can be seen from how well the sensitive–responsive parenting is implemented, which can be characterized by the ability to recognize and respond to the child's signals accurately. During infancy and early childhood, most of these interactions occur during feeding (responsive feeding). However, this dynamic can easily be disturbed. When mothers view their infants as temperamentally difficult, they may become too emotionally drained to effectively manage their own behavior. This misalignment

of emotions and miscommunication can ultimately induce a depressed mood in the infant, directly causing disruptions in their eating behaviors. Breastfeeding, specifically, determines the entirety of an infant's nutritional intake. Hence failure to meet proper parenting practices could significantly impact the child's growth and development, increasing the risk of malnutrition and stunting. [17]

Within the general global context, there are a few factors that correlate PPD to stunting, the most glaring being the decrease or lack of infant and young child feeding practices (IYCF). Poor IYCF happens due to the symptomatology of PPD, causing a feeling of disinterest (anhedonia) that leaves mothers with PPD unable to pay attention to their children's feeding.[18] One of the studies in India found that all IYCF practices: breastfeeding, bottle-feeding, as well as complementary feeding were significantly affected due to PPD. This study also showed a higher prevalence of stunted children in mothers with PPD compared to non-depressive mothers.[19] A MAASTHI cohort study in India further supports the association between PPD and stunting, where mothers with depression had 1.7 times higher risk of raising a stunted child. Some causes of stunting in mothers with PPD cited by the study included disrupted caregiving practices, a lack of mother-infant bonding, poor feeding practices, and alterations to the quality of home environment.[20] Heightened maternal sensitivity in depressive mothers affected perceptions of infant temperament. A 2011 study of maternal depression and child growth in developing countries found that due to the increased sensitivity towards infant temperament, mothers may be unable to modulate their own temperament, and their own behavior to suit the infant's temper, further causing feelings of frustration.[17]

It is also important to address other predisposing factors that affect the incidence of postpartum depression which then leads to stunting. A study in northern Ghana found disparities on socio-economic, and socio-demographic factors between mothers with and without depression. Mothers with depression were more likely to be younger, unmarried, and belong to the poorest households within the tertile. Another study in Pekanbaru further corroborates the evidence of the correlation between sociodemographic factors with stunting, where they found that sociodemographic factors affected parenting patterns in the form of help-seeking behavior, hygiene practices, and environmental sanitation which in turn

are strongly associated to the incidence of stunting.[21] A different qualitative study in Kerala, India further corroborates these with findings that indicated factors such as financial stress, a lack of awareness of PPD, and socio-cultural factors affected their help-seeking behavior which worsens their PPD but also makes them inattentive towards bringing their children to healthcare centers for check-ups, increasing the possibility of the child being stunted.[22] With that in mind, the study in Ghana found an adjusted odds ratio of 2.48, meaning depressive mothers were 1.48 times more likely to raise a stunted child.[23]

The Statistical Evidence of PPD and Stunting in Indonesia

Unfortunately, within the context of Indonesia, there is limited data on the prevalence of PPD, making an inference of national prevalence difficult. As an alternative, this review will discuss more on the statistical risk of stunting when mothers have PPD in Indonesia, alongside the correlation between the two variables.

In Indonesia, studies found positive correlations between PPD and the risk of stunting, alongside elevated odds ratios. A study of determinants of stunting in Central Java found that 82,4% of mothers of stunted children in the study population had PPD. The study also found that PPD was strongly correlated to stunting. Not only that, mothers with PPD also had a higher risk of raising stunted children, reaching an OR as high as 5.155.[24] Another study that examined the 2007 dan 2014 Indonesian Family Life Survey (IFLS) data also found similar results, in which the prevalence of depressive mothers with stunted children is higher than in non-depressive mothers, with 42.11% in children ages 0-5, and 61.84 in children ages 7-12 compared to 39.53% and 46.82% respectively in non-depressive mothers. True to the proportions, depressive mothers also had higher risks of raising stunted children, the risk being 0.15 times higher when their children are at ages 0-5, and 1.926 times higher when their children are at ages 7-12. The only strong correlation however was found in stunted children ages 7-12.[25]

A different 2025 study examines the multidimensionality of how maternal depression (including PPD) affects children's development in Indonesia, which also includes stunting. From this study, maternal depression was found to affect cognitive, socio-emotional, and physical development in children. For cognitive development, depressive mothers were found to be more distant toward their children, thus less responsive toward their children's

activities, and making them unable to teach children; both important foundations for children under 5 as it helps develop their executive function. For the socio-emotional development, similar to before, a lack of regular stimulation in children inhibits the emotional development due to their depressive parents' lack of socializing with their children; depressive parents were also more likely to have children that are unable to regulate their emotions due to the lack of emotional affirmation from their parents. Lastly, for physical development including stunting, this study focuses on pregnancy depression and therefore discusses the biological mechanism of how depression in pregnancy increases the risks of stunting.[26] However, an interesting discussion in said 2025 study was found from a previous 2022 that was cited. This study examined the scores in a depression screening questionnaire (CESD-10) and how said scores correlates to the risk of stunting in Indonesian children. From there, it was found that an increase in CESD-10 scores (higher scores indicate more severity) was strongly related with stunting in children, although interestingly this significant association was found in children ages 0-59, and ages 24-59.[27]

A 2025 cross-sectional study in Indonesia examined how family function and social support affects PPD and stunting. The findings of this study indicated a few key points, the first is the indirect association of family function with stunting via PPD. The second finding was regarding social support where it served as a strong predictor of not only PPD, but also parenting practices which could directly affect children's development. Lastly, this study found that despite the indirect associations from social support and family function, PPD still had a strong relationship to the risk of stunting ($p \leq 0.05$), but also alongside maternal feeding practices which could also be affected by PPD.[28] In a similar vein, a few studies in Indonesia found that the amount of support from husbands received is related to the incidence of postpartum depression. Factors such as effective communication, marital satisfaction, and consistent support (physical or emotional) played critical roles in the lowering of PPD in mothers. Mothers with insufficient support were found to be at a 6.013 times higher risk of having PPD. Despite support from husbands being paramount to the lowering of the incidence of PPD, it can be compensated through a strong community and social support or through a supportive family environment in lieu of support from husbands. [29–31]

Challenges and What Could Be Improved

Within the scope of Indonesian health care, but especially Indonesian mental health care for mothers, there are obstacles and challenges to overcome. In Indonesia, maternal and child healthcare has traditionally focused more on physical health indicators while mental health remains underlooked and insufficiently integrated. This imbalance may prevent early identification and treatment of maternal mental health problems despite the evidence stated in several studies such as one in 2019 where 82,4% of mothers that have stunted children have PPD.[24] A different study from 2025 have also mentioned several factors that pose challenges for maternal mental health in general.[26] These include the stigmatization of mental illnesses including postpartum depression, alongside the lack of access to maternal mental health care as stated before, and the limited training provided to healthcare workers on the subject of maternal mental health. Limited mental health resources, limited facilities, lack of financial support and trained personnel, and persistent social stigma contribute to the neglect of psychological care. Therefore, integrating mental health screening using tools such as the Edinburgh Postnatal Depression Scale (EPDS), Self Reporting Questionnaire (SRQ-20), and Strengths and Difficulties Questionnaire (SDQ-25), along with emotional support, into community-based maternal and neonatal healthcare programs is recommended.18,32,33 Other recommendations specific to healthcare settings include the delineation of healthcare workers' roles in order to coordinate interprofessional collaborations, the development of mental health-related campaigns and movements, and the development of teaching curriculum on mental health awareness starting from elementary grade, but also towards family members to reduce stigma towards mental health problems. [31,34–36]

Similar to Indonesia, where maternal mental health remains underlooked in health care services, other low- and middle-income countries face comparable challenges. A study in Ethiopia found several major obstacles, including the lack of supportive policies specifically focused on perinatal mental health, insufficient institutional resources and infrastructure, inequitable access to healthcare services, and poor coordination between healthcare providers. Cultural beliefs, misconceptions surrounding mental illness, and stigma discourage mothers from seeking psychological support during pregnancy and the postpartum period. In addition, many healthcare workers lack adequate training in perinatal mental health and may

not view mental health screening or treatment as part of their professional responsibilities.[37] Other than the healthcare services itself, a 2024 study in the Philippines on PPD treatment found that socioeconomic barriers significantly affected mothers' willingness and ability to seek mental healthcare. Financial difficulties, limited access to healthcare services, social stigma surrounding mental health, and inadequate social support were identified as major challenges preventing mothers from receiving appropriate care.[38]

This study contributes to the current knowledge by reviewing recent Indonesian research on the relationship between postpartum depression and child stunting. It presents strong evidence from local studies, such as Purwani et al., which found that 82.4% of mothers with stunted children had poor mental health, along with supporting findings from Tyas & Setyonaluri (2022), Nurfurqoni et al. (2025), and Pertiwi & Pardede (2024). However, there are still only a limited number of studies on this topic in Indonesia, and most of the existing research was conducted in Java. Important knowledge gaps also remain, such as limited evidence on how cultural, socioeconomic, and healthcare system differences across regions influence the strength of the relationship between postpartum depression and stunting, as well as the lack of longitudinal data to understand the long-term effects. Therefore, future research should focus on conducting more studies in Indonesia and across various provinces and islands. Additional recommendations include developing integrated mental health and nutrition programs. These efforts will help build a stronger evidence base and support better policies to reduce stunting and PPD across the country.

Conclusion

PPD in mothers has a strong positive correlation with increased risk of stunting in children in Indonesia. Mothers with PPD are substantially more likely to have stunted children due to impaired caregiving practices, particularly poor infant and young child feeding, reduced mother-child bonding, and lower nutritional intake. Despite consistent evidence from multiple studies, Indonesia faces major gaps in data, awareness, screening, and mental health services for mothers, compounded by stigma and healthcare prioritization of physical over psychological health. Integrating routine maternal mental health screening and support into existing maternal-child health programs is strongly recommended to mitigate stunting and improve child development outcomes.

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Conflict of Interest

The author and co-authors declare no conflicts of interest in this study.

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