Analysis of Factors That Affect Anxiety in Postpartum Mothers

Iin Tri Marlinawati*, Zulhijriani, Laila Chomsatus Sa'adah

Sekolah Tinggi Ilmu Kesehatan Bakti Utama Pati, Indonesia

*Corresponding Author: iin3marlina@gmail.com

Abstract. Postpartum anxiety in mothers can negatively impact the baby, the mother's own mental health, and the marital relationship. According to several studies that have been conducted, symptoms of severe depression tend to develop in postpartum blues. More than 20% of women who suffer from postpartum blues experience symptoms of severe depression within the first year after giving birth. This study is a quantitative study with a cross-sectional design, conducted in Tondomulyo Village in March 2024. The respondents of this study were 34 postpartum mothers. Sampling was done using purposive sampling technique. The research instrument used was a questionnaire. Univariable and bivariate analyses were conducted using Chi-Square ($p<0.05$). The results of this study show that there is a relationship between age and anxiety in postpartum mothers with a p-value of 0.006; there is a relationship between education level and anxiety in postpartum mothers with a p-value of 0.000; there is no relationship between parity and anxiety in postpartum mothers with a p-value of 0.001; there is a relationship between income and anxiety in postpartum mothers with a p-value of 0.138; there is a relationship between mothers' knowledge and anxiety in postpartum mothers with a p-value of 0.004; there is a relationship between husband support and anxiety in postpartum mothers with a p-value of 0.003; there is a relationship between family support and anxiety in postpartum mothers with a p-value of 0.016; there is a relationship between adaptation to the new role as a mother and anxiety in postpartum mothers with a p-value of 0.002; there is a relationship between postnatal yoga and anxiety in postpartum mothers with a p-value of 0.004.

Key words: Anxiety, Postpartum Mother

INTRODUCTION

The postpartum phase refers to the time following childbirth and the expulsion of the placenta, typically lasting around six weeks, during which various organs connected to the uterus begin to recover, along with other transformations and potential issues. After giving birth, mothers undergo stages of physiological and social adaptation; however, not every postpartum mother successfully navigates this transition. During this time, postpartum mothers may encounter psychological challenges, such as anxiety. Dramatic changes experienced by postpartum mothers often lead to feelings of frustration, physical discomfort reminiscent of early pregnancy, worries about managing their responsibilities, including self-care, and exhaustion from sleep deprivation during labor (Anggraeni & Saudia, 2021).

Numerous elements contribute to postpartum anxiety in mothers, such as hormonal changes, physic al discomfort, difficulties in adapting to the new maternal role, age and number of births, experiences during pregnancy and delivery, educational background, sufficiency of support from partners and fami ly, exhaustion after childbirth, alterations in the maternal role, as well as the mother's psychosocial bac kground encompassing marital status, education level, unintended pregnancy, economic standing, and prior psychological issues. Psychological aspects influencing postpartum anxiety include stress manag ement, personal adaptation, and social support; among these, personal adaptation is seen as the most si gnificant factor impacting postpartum anxiety (Solama & Handayani, 2022).

Women experiencing postpartum anxiety frequently exhibit heightened emotional distress, including feelings of sadness, which may compromise their capacity to provide sensitive and affectionate caregiving. Such disruptions in maternal responsiveness can negatively affect the formation of secure attachment, thereby increasing the likelihood of emotional insecurity in later childhood. Moreover, postpartum anxiety may interfere with the quality of the mother–infant relationship, placing infants at greater risk for psychological difficulties and developmental delays (Phua *et al.,* 2020).

The presence of strong social support, particularly from the husband and family, is an important protective factor against postpartum blues. Because husbands are often the primary source of emotional support during the postpartum period, their involvement can significantly influence maternal psychological well-being and promote a smoother transition to motherhood. Furthermore, husband support functions as an effective coping resource by buffering the effects of stress and reducing the likelihood of postpartum anxiety (Liu *et al.,* 2020).

Adequate spousal support is an important protective factor against postpartum anxiety. Mothers who receive consistent emotional, instrumental, informational, and appraisal support from their husbands are generally better equipped to cope with the challenges of the postpartum period and are less likely to experience anxiety. Conversely, insufficient partner support may increase maternal emotional distress and feelings of being overwhelmed while caring for a newborn. Beyond its effects on maternal mental health, postpartum anxiety can adversely affect infant outcomes and marital functioning. Moreover, dramatic postpartum hormonal changes, including fluctuations in progesterone, estrogen, thyroid hormones, cortisol, and prolactin, may further contribute to mood instability. Since postpartum anxiety is frequently overlooked in clinical practice, timely recognition and appropriate management are critical to preventing its progression to postpartum depression (Selamita *et al.,* 2022).

The World Health Organization (WHO) recognizes postpartum blues as a common maternal mental health concern worldwide. Available reports indicate a global prevalence of approximately 38%, with about half of the cases occurring among women of productive age by 2050. WHO further estimates that nearly 20% of women experience this condition during their lifetime. In Asia, postpartum blues represents a considerable health burden, affecting an estimated 2.69 million postpartum women. According to the integrated USAID database (2016), Indonesia has a reported prevalence of 31 births per 1,000 population (WHO, 2020). Over the past decade, growing research interest has focused on the psychological changes experienced after childbirth, leading to numerous reports on the incidence of postpartum blues and its associated determinants. Internationally, the reported prevalence varies considerably, ranging from 26% to 85%, whereas Phua *et al.* (2020) reported that between 50% and 70% of postpartum women in Indonesia experience postpartum blues.

WHO (2020) reported marked disparities in infant mortality rates among ASEAN member countries, with Singapore recording the lowest rate (3 per 1,000 live births), followed by Malaysia (5.5), Thailand (17), Vietnam (18), and Indonesia (27 per 1,000 live births). Despite ongoing efforts to improve maternal and newborn health, neonatal mortality continues to represent a major contributor to infant deaths in Indonesia. The 2016 Indonesia Health Profile indicates that deaths occurring during the neonatal period (0–28 days) account for 59% of total infant mortality. Consistent with these findings, the 2019 Indonesia Demographic and Health Survey (IDHS) reported a neonatal mortality rate of 19 per 1,000 live births, reflecting only a marginal reduction from the rate of 20 per 1,000 live births documented in the 2015–2018 IDHS (Ministry of Health of the Republic of Indonesia, 2020).

Hemorrhage, infection, preterm birth or low birth weight, birth asphyxia, and hypothermia remain the principal contributors to perinatal mortality. Approximately 50% of infant deaths occur during the neonatal period, emphasizing the importance of timely and appropriate newborn care. Inadequate management of neonates, including those born without apparent health complications, may increase the risk of severe morbidity, lifelong disability, or death. Although becoming a mother is a major developmental milestone, the transition to motherhood can be psychologically challenging, particularly for first-time mothers. Limited caregiving experience and concerns about the infant's well-being often contribute to heightened anxiety and diminished maternal self-confidence during the postpartum period (Araji *et al.,* 2020).

Poor handling and care of newborns can partly be caused by a mother's lack of knowledge about newborn care, especially for first-time mothers who have no direct experience in taking care of a newborn, which can lead to anxiety during the baby’s first week of life. Anxiety issues are common among first-time mothers, arising from their inability and unpreparedness to accept a baby who needs special care during the first week after birth. However, this anxiety is generally relative some mothers feel anxious but can calm down after receiving support from people around them, while others remain constantly anxious even when supported. Anxiety that arises in first-time mothers is often linked to worries about facing situations they have never worried about before. They feel anxious about their inability to take care of their baby because it's something new for them and realize that becoming a mother means their busyness will increase (Garg *et al.,* 2023).

Evidence suggests that postpartum blues may represent an early stage in the continuum of postpartum mood disorders. Purwati and Noviyana (2020) reported that over 20% of women with postpartum blues developed severe depressive symptoms within the first year after delivery, and untreated cases may subsequently progress to postpartum depression or, in rare instances, postpartum psychosis. Beyond its adverse effects on maternal mental health, postpartum blues can interfere with mother–infant bonding and reduce the quality of caregiving, thereby potentially compromising infant

development. Consistent with these findings, Utami and Nurfita (2022) demonstrated a significant association between maternal anxiety and postpartum blues, reporting that 71.1% of mothers with anxiety experienced postpartum blues, whereas no cases were identified among mothers who did not report anxiety.

The approach results with the village midwife before conducting research in Tondomulyo Village, Jakenan District, showed that postpartum mothers were not aware of postpartum anxiety or the effects it can have if a mother experiences anxiety during this period. The village midwife also mentioned that sometimes postpartum mothers worry about not being able to take good care of their babies, and sometimes their husbands pay little attention to the mother's condition because they are busy working. Based on the issues described above, the researcher is interested in conducting a study on "Analysis of Factors Influencing Anxiety in Postpartum Mothers."

METHODS

A quantitative analytical survey employing a cross-sectional design was conducted among postpartum mothers in Tondomulyo Village, Indonesia, during March 2024. The target population comprised 38 postpartum mothers, of whom 34 meeting the predefined inclusion criteria were enrolled using purposive sampling. The study investigated the associations between maternal age, educational attainment, parity, household income, maternal knowledge, husband support, family support, adaptation to the maternal role, and postnatal yoga participation with postpartum anxiety. Data were collected using a structured questionnaire and the Hamilton Rating Scale for Anxiety (HAM-A/HRSA). Bivariate relationships were assessed using the Chi-square test.

RESULTS AND DISCUSSION

Based on the data collected, here are the main findings from the respondents:

Table 1. Frequency Distribution of Respondent Characteristics and Research Variables

Number	Variable	Frequency	Percentage (%)
1	**Age (years)**		
	< 20 years old	0	0,0
	20 – 35 years old	19	55,9
	36 – 50 years old	15	44,1
	Total	34	100
2	**Education**		
	Elementary (SD, SMP)	11	32,4
	High School (SMA/SMK)	18	52,9
	Higher (Higher Education)	5	14,7
	Total	34	100
3	**Parity**		
	Primipara (1 child)	10	29,4
	Multipara (more than 1 child)	24	70,6
	Grand multipara (>5 children)	0	0
	Total	34	100
4	**Income**		
	Enough (≥ minimum wage or ≥ Rp 2,190,000)	23	67,6
	Less (< minimum wage or < Rp 2,190,000)	11	32,4
	Total	34	100
5	**Knowledge**		
	Good knowledge	3	8,8
	Enough knowledge	17	50,0
	Lack of knowledge	14	41,2
	Total	34	100
6	**Husband's Support**		
	Good	21	61,8
	Enough	13	38,2
	Total	34	100
7	**Family Support**		
	Good	17	50,0
	Enough	17	50,0
	Total	34	100

Number	Variable	Frequency	Percentage (%)
8	**Adjusting to a New Role as a Mom**		
	Unable	20	58,8
	Able	14	41,2
	Total	34	100
9	**Postnatal Yoga**		
	Not Regular	21	61,8
	Routine	13	38,2
	Total	34	100
10	**Anxiety**		
	Not worried	6	17,6
	Mild anxiety	15	44,1
	Moderate anxiety	12	35,3
	Severe anxiety	1	2,9
	Total	34	100

Table 1 summarizes the demographic and clinical characteristics of the respondents. More than half of the participants were aged 20–35 years (55.9%, n = 19) and had attained a senior high school education (52.9%, n = 18), while the majority were multiparous (70.6%, n = 24) and reported an income equal to or above the regional minimum wage (67.6%, n = 23). Half of the respondents demonstrated adequate knowledge regarding postpartum care (50.0%, n = 17). Most participants perceived strong support from their husbands (61.8%, n = 21), whereas family support was evenly distributed between adequate and inadequate levels (50.0% each). Despite these findings, the majority reported difficulty adapting to the maternal role (58.8%, n = 20) and did not participate in postnatal yoga regularly (61.8%, n = 21). Mild anxiety was the most frequently reported level of anxiety, affecting 44.1% (n = 15) of respondents.

Table 2. The Relationship Between Age and Anxiety in Postpartum Mothers

Age (years)	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
< 20 years old	1	2,9	6	17,6	11	32,4	1	2,9	19	55,9	
20 – 35 years old	5	14,7	9	26,5	1	2,9	0	0	15	44,1	0,006
36 – 50 years old	0	0	0	0	0	0	0	0	0	0	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 2 demonstrates that moderate anxiety was most commonly observed among respondents aged 20–35 years (32.4%, n = 11). Statistical analysis using the Chi-square test identified a significant association between maternal age and postpartum anxiety (p = 0.006). Mothers younger than 20 years and those older than 35 years were more likely to report elevated anxiety levels than women within the optimal reproductive age range. This finding may be explained by differences in psychological readiness and perceived health risks. Younger mothers often face challenges related to emotional immaturity, limited caregiving experience, and adjustment to the maternal role, whereas older mothers may experience increased anxiety due to concerns about postpartum complications and neonatal outcomes. By comparison, mothers aged 20–35 years generally exhibit greater emotional resilience, psychological preparedness, and more effective coping mechanisms, which may protect against excessive anxiety during the postpartum period.

Table 3 Relationship Between Education Level and Anxiety in Postpartum Mothers

Education	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Elementary (SD, SMP)	0	0	1	2,9	9	26,5	1	2,9	11	32,4	
High School (SMA/SMK)	1	2,9	14	41,2	3	8,8	0	0	18	52,9	0,000
Higher (Higher Education)	5	14,7	0	0	0	0	0	0	5	14,7	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 3 indicates that mild anxiety was most commonly observed among respondents with a secondary education (senior high school/vocational high school) (41.2%, n = 14). Statistical analysis using the Chi-square test demonstrated a significant association between educational attainment and

postpartum anxiety (p = 0.002). Mothers with lower levels of education were more likely to experience elevated anxiety than those with higher educational attainment. This finding supports the view that education plays a crucial role in shaping an individual's capacity to obtain, comprehend, and utilize health information, particularly regarding postpartum care and adjustment to motherhood. Higher educational attainment is generally associated with greater health literacy and psychological readiness, whereas limited educational backgrounds may restrict access to reliable information, increase uncertainty, and ultimately heighten the risk of postpartum anxiety.

The results of this study are also supported by the reality in the field that problem-solving skills (coping mechanisms) are greatly influenced by intellectual maturity. Mothers in the postpartum period with higher education tend to be more rational and adaptive in dealing with physical discomfort as well as emotional burdens during this time. They are also more proactive in seeking medical support or using healthcare services when facing challenges in caring for their babies. Mothers with lower education often get stuck on myths or incorrect postpartum care traditions from their surroundings, which actually increases their psychological burden. Therefore, education level is not just a predictor of social status, but an important tool that shapes a mother's mental readiness to manage stressors during the postpartum period (Febriati *et al.,* 2022).

Table 4 The Relationship Between Parity and Anxiety in Postpartum Mothers

Parity	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Primipara (1 child)	0	0	1	2,9	8	26,5	1	2,9	10	29,4	0,001
Multipara (more than 1 child)	6	17,6	14	41,2	4	8,8	0	0	24	70,6	
Grand multipara (>5 children)	0	0	0	0	0	0	0	0	0	0	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 4 indicates that mild anxiety was most commonly reported among multiparous respondents (41.2%, n = 14). Statistical analysis using the Chi-square test identified a significant association between parity and postpartum anxiety (p = 0.001). Higher levels of anxiety were predominantly observed among primiparous mothers, suggesting that first-time motherhood is associated with greater psychological vulnerability during the postpartum period. The transition to the maternal role, combined with limited prior experience in newborn care, postpartum recovery, and adaptation to disrupted sleep patterns, may reduce maternal confidence and increase perceived caregiving challenges. These factors can contribute to feelings of uncertainty, fear of inadequate infant care, and a greater likelihood of experiencing postpartum anxiety.

On the other hand, research data shows that multiparous mothers (those giving birth for the second time or more) tend to have lower anxiety levels and are more adaptive during the postpartum period. Previous childbirth and child-rearing experience act as an effective natural coping mechanism for multiparous mothers. They already have a clear picture of the postpartum recovery process and baby care techniques, so their emotional responses are much more stable. Although anxiety can still occur in multiparous mothers, it is usually triggered by external factors, like dividing time between caring for the first child and the newborn, and the severity rarely reaches the level of heavy anxiety compared to first-time mothers.

The results of this study align with midwifery psychology theory, which says that parity or a mother's childbirth history is one of the main internal factors affecting her mental readiness. Positive past experiences can make new stressors seem less overwhelming. That's why postnatal nursing and midwifery interventions shouldn't be one-size-fits-all. Healthcare workers need to pay more attention, provide baby care education, and offer more intensive and personal psychological support to first-time mothers early on to prevent the risk of postpartum mental issues like baby blues or postpartum depression (Nadiroh *et al.,* 2022).

Table 5 The Relationship Between Income and Anxiety in Postpartum Mothers

Income	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Enough (≥ minimum wage or ≥ Rp 2,190,000)	3	8,8	13	38,2	6	17,6	1	2,9	23	67,6	0,138
Less (< minimum wage or < Rp 2,190,000)	3	8,8	2	5,2	6	17,6	0	0	11	32,4	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 5 shows that most respondents with a moderate income experienced mild anxiety, which is 13 respondents (38.2%), with a p-value of 0.138, so there is no relationship between income and anxiety in postpartum mothers in Tondomulyo Village. Most postpartum mothers with income below the Regional Minimum Wage (UMR) tend to experience moderate to severe anxiety, while postpartum mothers with sufficient family income or above the UMR are mostly in the not anxious or mild anxiety category. Income is a structural factor that determines a family's ability to meet essential needs during the postpartum period. These needs include the costs of postnatal medical care, buying quality nutrition for breastfeeding mothers, baby supplies, and even preparing emergency funds in case of health complications. When these financial aspects aren't adequately met, new mothers can face extra psychological pressure, which can trigger feelings of insecurity, worries about their child's future, and a sense of not being able to handle their new role properly.

Psychologically, the postpartum period is a vulnerable phase marked by drastic hormonal fluctuations, physical exhaustion from lack of sleep, and adjusting to a new role as a parent. If this natural vulnerability interacts with external stressors like financial limitations, the risk of anxiety can increase exponentially. Postpartum mothers with low income often have to think about how to divide their limited budget for daily necessities as well as the growing needs of their baby, which in the end can trigger anxiety symptoms such as a racing heart, sleep disturbances, and feelings of restlessness. On the other hand, a high or stable income acts as a protective buffer against postpartum stressors. Being financially stable gives a sense of security because the mother knows that all her and her baby's physical and medical needs can be met without any issues, and it even allows them to access extra support like hiring a babysitter or buying postpartum care services that can help reduce physical exhaustion. (Marwiyah *et al.,* 2022).

The results of this study align with the Social Determinants of Health theory, which states that socioeconomic status, including income, strongly affects a person's mental health status. Economic limitations restrict postpartum mothers' access to resources that support their well-being, both materially and psychologically. Therefore, this study emphasizes that anxiety in postpartum mothers should not be seen solely as a clinical or hormonal issue, but as a complex phenomenon closely linked to family economic stability. Future nursing and public health interventions should not only focus on early psychological screening at community health centers but also consider the economic status of postpartum mothers as a key indicator of high risk for postpartum anxiety disorders (Mertasari & Sugandini, 2023).

Table 6 The Relationship Between Knowledge and Anxiety in Postpartum Mothers

Knowledge	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Good knowledge	0	0	3	8,8	0	0	0	0	3	8,8	0,004
Enough knowledge	5	14,7	10	29,4	2	5,9	0	0	17	50,0	
Lack of knowledge	1	2,9	2	5,9	10	29,4	1	2,9	14	41,2	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 6 indicates that mild anxiety was most commonly reported among respondents with adequate knowledge (29.4%, n = 10). Statistical analysis identified a significant association between maternal knowledge and postpartum anxiety (p = 0.004). Mothers with greater knowledge demonstrated lower levels of anxiety, whereas limited knowledge was associated with a higher prevalence of moderate to severe anxiety. This relationship may be explained by the role of knowledge as a protective cognitive

resource that enhances maternal understanding of postpartum physiological and psychological adaptation, as well as appropriate newborn care. Greater knowledge can improve maternal self-efficacy and psychological preparedness while reducing uncertainty and fear of unfamiliar experiences during the transition to motherhood. These findings support cognitive-behavioral perspectives suggesting that accurate health information facilitates adaptive cognitive appraisal, strengthens emotional regulation, and reduces the likelihood of postpartum anxiety (Syahrianti *et al.*, 2020).

Table 7 The Relationship Between Husband's Support and Anxiety in Postpartum Mothers

Husband's Support	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Good	5	14,7	13	38,2	3	17,6	1	2,9	21	61,7	0,003
Enough	1	2,9	2	5,2	9	17,6	0	0	13	38,2	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 7 indicates that mild anxiety was most frequently observed among respondents who reported receiving good support from their husbands (38.2%, n = 13). Statistical analysis using the Chi-square test demonstrated a significant association between husband support and postpartum anxiety (p = 0.003). Mothers who perceived strong spousal support were less likely to experience elevated anxiety levels, suggesting that husband support serves as an important protective factor for maternal mental health during the postpartum period. Conversely, limited support from husbands was associated with a greater likelihood of mild to severe postpartum anxiety.

Theoretically, the postpartum period is a crucial transitional phase that triggers major physical, hormonal, and psychological changes for a woman. Having a husband nearby as the closest person has a huge psychological impact through four types of support: emotional support, providing a sense of security, calm, and feeling loved; instrumental support, helping take care of the baby and getting household chores done; informational support, working together to find solutions for baby care challenges; and appraisal support, giving praise and positive feedback for the wife's new role (Low *et al.*, 2023).

Active spousal involvement is an important protective factor for maternal psychological well-being during the postpartum period. Meaningful emotional and practical support from husbands may attenuate physiological stress responses by reducing cortisol secretion while facilitating oxytocin release, thereby enhancing relaxation and emotional stability. In contrast, inadequate husband support can increase perceived social isolation, physical fatigue, and feelings of unpreparedness for the transition to motherhood. These challenges may intensify maternal worry, emotional distress, and concerns regarding caregiving competence. Accordingly, husband support serves as an effective stress-buffering resource that strengthens maternal resilience and reduces the risk of postpartum anxiety (Nadiroh *et al.*, 2022).

Table 8 The Relationship Between Family Support and Anxiety in Postpartum Mothers

Family Support	Kecemasan								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Good	4	14,7	11	32,4	2	17,6	0	0	17	50	0,016
Enough	2	2,9	4	11,8	10	17,6	1	2,9	17	50	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 8 indicates that mild anxiety was most frequently observed among respondents who perceived good family support (32.4%, n = 11). Statistical analysis using the Chi-square test identified a significant association between family support and postpartum anxiety (p = 0.016). Mothers who received stronger family support generally reported lower levels of anxiety, whereas limited family involvement was associated with greater psychological vulnerability during the postpartum period. These findings emphasize the role of family, particularly the husband, as a key source of emotional, informational, and practical support that functions as a stress-buffering resource, facilitating maternal adaptation to the transition to motherhood and reducing the likelihood of postpartum anxiety.

Clinically and psychologically, emotional support from family, such as attention, empathy, and acceptance, can foster a sense of security that directly reduces the production of cortisol, the stress

hormone. In addition, tangible instrumental help, like assisting with house chores and taking care of the baby, provides the opportunity for new mothers to rest and recover physically. The combination of emotional comfort, physical assistance, and informational support on proper child-rearing can effectively break the cycle of extreme fatigue and lack of confidence, which often are the root causes of postpartum anxiety and depression (Naharani et al., 2023).

Table 9 Relationship Between Adaptation to the New Role as a Mother and Anxiety in Postpartum Mothers

Adjusting to a New Role as a Mom	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Unable	2	2,9	5	32,4	12	35,3	0	0	20	58,8	0,002
Able	4	14,7	10	11,8	0	0	1	2,9	14	41,2	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 9 indicates that moderate anxiety was most commonly reported among respondents who experienced difficulties adapting to the maternal role (35.3%, n = 12). Statistical analysis using the Chi-square test identified a significant association between maternal role adaptation and postpartum anxiety (p = 0.002). Mothers who demonstrated successful adaptation to the transition to motherhood generally experienced minimal or no anxiety, whereas those with maladaptive adjustment were more likely to report moderate to severe anxiety. These findings suggest that effective adaptation to the maternal role is an important protective factor for maternal psychological well-being during the postpartum period, as it enhances emotional adjustment and reduces vulnerability to anxiety following childbirth.

The postpartum period is a critical time that requires big changes in a woman's life, both physically, psychologically, and socially. Being able to adapt effectively helps moms be more ready to face new challenges, like changes in sleep patterns, the demands of taking care of a baby, and changes in body shape. When a mom can accept and embrace her new role positively, her psychological coping mechanisms become strong, which helps reduce the risk of feelings of helplessness that can trigger anxiety (Rohmana et al., 2020).

On the other hand, failure in this adaptation process often triggers a stress response that shows up as postpartum anxiety. Mothers who feel unfamiliar with their role or feel incapable of taking care of their baby properly will constantly be wrapped in worry and guilt. This aligns with maternal psychology theory, which states that successfully going through the phases of taking-in, taking-hold, and letting-go greatly affects a mother's emotional stability. That's why social support from husbands and family, as well as thorough health education starting from pregnancy, is really needed to help moms adapt better and prevent postpartum anxiety (Purwati & Noviyana, 2020).

Table 10 The Relationship Between Postnatal Yoga and Anxiety in Postpartum Mothers

Postnatal yoga	Anxiety								Total		p-value
	Not worried		Mild anxiety		Moderate anxiety		Severe anxiety				
	f	%	f	%	f	%	f	%	f	%	
Not Regular	2	2,9	6	17,6	12	35,3	1	2,9	21	61,8	0,004
Routine	4	14,7	9	26,5	0	0	0	0	13	38,2	
Total	6	17,6	15	44,1	12	35,3	1	2,9	34	100	

Table 10 indicates that moderate anxiety was most commonly reported among respondents who did not participate in postnatal yoga on a regular basis (35.3%, n = 12). Statistical analysis using the Chi-square test identified a significant association between postnatal yoga participation and postpartum anxiety (p = 0.004). The postpartum period is characterized by profound hormonal changes, physical recovery, and psychological adjustment to motherhood, making women particularly vulnerable to anxiety. Postnatal yoga has emerged as an effective complementary intervention that integrates physical postures (*asanas*), breathing techniques (*pranayama*), and meditation to promote psychological well-being. Evidence suggests that these practices may stimulate parasympathetic nervous system activity, reduce physiological stress responses by lowering cortisol levels, and enhance the release of endorphins and oxytocin, thereby improving relaxation, emotional regulation, and overall maternal mental health (Oyarzabal *et al.*, 2021).

The findings of this study are consistent with those of Gallagher et al. (2020), who reported that regular engagement in postnatal yoga is associated with improved psychological well-being, a reduced risk of postpartum depression, and fewer postpartum physical complaints. Beyond its benefits for physical recovery, yoga-induced relaxation may enhance sleep quality, thereby helping to mitigate the reciprocal relationship between sleep disturbance and anxiety that is frequently observed during the postpartum period. These results further support the role of postnatal yoga as a safe, accessible, and evidence-based complementary intervention for promoting maternal mental health and enhancing quality of life throughout the postpartum transition.

CONCLUSION

The present study found that mild anxiety was the most common psychological condition among postpartum mothers in Tondomulyo Village (44.1%), followed by moderate anxiety (35.3%), absence of anxiety (17.6%), and severe anxiety (2.9%). Bivariate analysis revealed statistically significant associations between postpartum anxiety and maternal age ($p = 0.006$), educational level ($p = 0.002$), parity ($p = 0.001$), maternal knowledge ($p = 0.004$), husband support ($p = 0.003$), family support ($p = 0.016$), adaptation to the maternal role ($p = 0.002$), and participation in postnatal yoga ($p = 0.004$). Mothers who demonstrated more favorable demographic characteristics, adequate knowledge, stronger social support, successful adaptation to motherhood, and regular postnatal yoga practice were less likely to experience elevated anxiety levels. In contrast, household income was not significantly associated with postpartum anxiety ($p = 0.138$), indicating that socioeconomic status was not a significant predictor in this population. These findings suggest that postpartum anxiety is influenced by a multifactorial interplay of demographic, cognitive, psychosocial, and behavioral factors. Therefore, preventive strategies should prioritize improving maternal health literacy, enhancing husband and family involvement, supporting maternal role adaptation, and integrating postnatal yoga as an evidence-informed complementary intervention to promote maternal mental well-being during the postpartum period.

ACKNOWLEDGEMENT

The author expresses deep appreciation and thanks to STIKes Bakti Utama Pati for the institutional support provided, which made it possible for the research on factors related to anxiety in postpartum mothers in Tondomulyo Village to be carried out successfully. Support in the form of facilities, opportunities, and a conducive academic atmosphere greatly helped throughout the planning, implementation, and preparation of this research's results.

The author also extends appreciation to everyone who has contributed to this research, especially the Tondomulyo Village government, healthcare workers, and all the postpartum mothers who were willing to be respondents and provide the necessary information. Hopefully, the results of this study can be beneficial for the development of midwifery science, serve as input for maternal healthcare practices, and provide a basis for efforts to improve mothers' mental health during the postpartum period.

REFERENCES

Anggraeni, N. P. D. A., & Saudia, B. E. P. (2021). Gambaran Tingkat Kecemasan dan Kadar Hormon Kortisol Ibu Nifas: Anxiety and Cortisol Levels among Postpartum Mother's. *Jurnal Bidan Cerdas*, *3*(2), 55-63.

Araji, S., Griffin, A., Dixon, L., Spencer, S. K., Peavie, C., & Wallace, K. (2020). An Overview of Maternal Anxiety During Pregnancy and the Post-Partum Period. *Journal of Mental Health & Clinical Psychology*, *4*(4).

Febriati, L. D., Zakiyah, Z., & Ratnaningsih, E. (2022). Hubungan Pendidikan dan Pekerjaan terhadap Adaptasi Perubahan Psikologi pada Ibu Nifas. In *Prosiding Seminar Nasional Multidisiplin Ilmu* (Vol. 4, No. 1, pp. 287-294).

Gallagher, A., Kring, D., & Whitley, T. (2020). Effects of Yoga on Anxiety and Depression for High Risk Mothers on Hospital Bedrest. *Complementary Therapies in Clinical Practice*, *38*, 101079.

Garg, D., Chaudhury, S., Saldanha, D., & Kumar, S. (2023). Stress, Postpartum Depression, and Anxiety

in Mothers of Neonates Admitted in the NICU: A cross-sectional hospital-based study. *Industrial Psychiatry Journal*, *32*(1), 48-58.

Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2020). *Profil Kesehatan Indonesia Tahun 2020*. Jakarta : Kementerian Kesehatan RI

Liu, Y., Guo, N., Li, T., Zhuang, W., & Jiang, H. (2020). Prevalence and Associated Factors of Postpartum Anxiety and Depression Symptoms among Women in Shanghai, China. *Journal of affective disorders*, *274*, 848-856.

Low, S. R., Bono, S. A., & Azmi, Z. (2023). The Effect of Emotional Support on Postpartum Depression among Postpartum Mothers in Asia: A systematic review. *Asia-Pacific Psychiatry*, *15*(2-3), e12528.

Marwiyah, N., Suwardiman, D., Mutia, H. K., Alkarimah, N. A., Rahayu, R., Nuraeni, N., & Uzzakiyyah, I. (2022). Faktor Determinan yang Mempengaruhi terjadinya Postpartum Blues pada Ibu Nifas. *Faletehan Health Journal*, *9*(01), 89-99.

Mertasari, L., & Sugandini, W. (2023). *Asuhan Masa Nifas Dan Menyusui*. PT. Raja Grafindo Persada-Rajawali Pers.

Nadiroh, S. U., Masini, M., & Dewi, C. H. T. (2022). Hubungan Dukungan Suami dan Paritas terhadap Tingkat Kecemasan Ibu Postpartum. *Juru Rawat. Jurnal Update Keperawatan*, *2*(1), 40-48.

Naharani, A. R., Setyatama, I. P., Masturoh, M., & Siswati, S. (2023). Hubungan Dukungan Keluarga dengan Kejadian Post Partum Blues Pada Ibu Nifas di Desa Dukuhwaru Kabupaten Tegal. *Bhamada: Jurnal Ilmu Dan Teknologi Kesehatan (E-Journal)*, *14*(1), 87-91.

Oyarzabal, E. A., Seuferling, B., Babbar, S., Lawton-O'Boyle, S., & Babbar, S. (2021). Mind-body Techniques in Pregnancy and Postpartum. *Clinical Obstetrics and Gynecology*, *64*(3), 683-703.

Phua, D. Y., Chen, H., Chong, Y. S., Gluckman, P. D., Broekman, B. F., & Meaney, M. J. (2020). Network Analyses of Maternal Pre-and Post-partum Symptoms of Depression and Anxiety. *Frontiers in Psychiatry*, *11*, 785.

Purwati, P., & Noviyana, A. (2020). Faktor-faktor yang Menyebabkan Kejadian Postpartum Blues. *Infokes: Jurnal Ilmiah Rekam Medis dan Informatika Kesehatan*, *10*(2), 1-4.

Rohmana, D., Jayatmi, I., & Darmadja, S. (2020). Determinan Kecemasan yang Terjadi pada Ibu Post Partum. *Jurnal Ilmiah Kebidanan Indonesia*, *10*(02), 48-59.

Selamita, S., Afiyanti, Y., & Faridah, I. (2022). Hubungan Dukungan Suami dengan Tingkat Kecemasan pada Ibu Bersalin. *Nusantara Hasana Journal*, *1*(8), 9-18.

Solama, W., & Handayani, S. (2022). Faktor-faktor yang Berhubungan dengan Tingkat Kecemasan Ibu Postpartum. *Jurnal'Aisyiyah Medika*, *7*(1).

Syahrianti, S., Fitriyanti, W. O., Askrening, A., & Yanthi, D. (2020). Hubungan Pengetahuan dengan Kecemasan Ibu Nifas dalam Merawat Bayi Baru Lahir. *Health Information: Jurnal Penelitian*, *12*(2), 214-223.

Utami, F. P., & Nurfita, D. (2022). Postpartum Blues Reviewed by the Risk Factors in Indonesia. *Journal of Ideas in Health*, *5*(4).

World Health Organization (WHO)., 2020. *Newborn Health.* World Health Organization.