

Prospective brides' perceptions of pregnancy preparation in early marriage

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Abstract

Early marriage remains a reproductive health issue because it increases the risk of physical, psychological, and social problems for adolescents. This study aims to describe the perceptions of prospective brides regarding pregnancy preparation in early marriage by emphasizing in-depth findings from six informants. The study used a phenomenological qualitative design with semi-structured interviews and purposive sampling, conducted from August to November 2025. Data analysis used content analysis techniques. The results showed that the readiness of prospective brides to face pregnancy in early marriage still faces various limitations. Physical readiness was characterized by biological immaturity, suboptimal nutritional status, a history of anemia, and a low understanding of preconception health. Emotional readiness was also a major challenge, as seen in anxiety about the role of parents, fear of the delivery process, and ambivalence. In contrast, financial readiness was perceived to be relatively good, especially in relation to meeting the basic needs of pregnancy and childbirth, although this was highly dependent on the economic conditions of the prospective husband. Spiritual readiness and support from the husband and immediate family play an important role in strengthening the mental and psychological readiness of expectant mothers. These findings emphasize the need for a holistic approach through strengthening preconception health education and family support in preparing for pregnancy in early marriage.

Keywords: Early marriage; Pregnancy preparation; Prospective Bride; Perception

1. Introduction

Early marriage remains a reproductive health issue at both the global and national levels. UNICEF Indonesia [1] noted that in 2018, 1,220,900 Indonesian women were married before the age of 18. This practice decreased by 3.5% between 2010 and 2020 but is still far from the target of 8.74% in 2024 and 6.94% in 2030 [2]. This situation highlights the need for more intensive policies to reduce the rate of early marriage in order to improve the quality of life for young women.

East Java is the province with the highest rate of early marriage. The average age of first marriage is 19.9 years, and 19.49% of women over the age of 10 are married under the age of 17 [3]. The highest rates are found in Madura and Padulungan (mixed between Madurea (Madura) and Java culture) regions, such as Bondowoso (45.04%), Probolinggo (39.61%), Situbondo (36.52%), Jember (34.61%), Lumajang (30.37%), and Sumenep (29%) [4]. Additional data shows that 24% of women aged 15–19 in Pamekasan, 10.68% in Sumenep, and 5.88% in Sampang are married. This condition confirms that Madura is still a region with a high prevalence of early marriage.

Educational, economic, religious, and cultural factors play a strong role in perpetuating this practice. A research [5] found that 64% of women who married early had a junior high school education and 94.9% came from low-income families. Other research [6] also showed that local religious norms encourage early marriage to avoid relationships that are considered potentially sinful. Cultural pressures such as the label "ta' pajuh lake" for unmarried women aged 15–

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18 reinforce the urge to marry early. These factors create a social environment that limits young women's reproductive choices.

Early marriage impacts education, mental health, and obstetric risks. Msuya [7] states that early marriage hinders education and triggers poverty, while Sezgin and Punamäki [8] found an increased risk of psychological stress. The World Health Organization [9] reports that pregnancy under the age of 20 increases the risk of eclampsia, systemic infections, and low birth weight babies. Preconception care has been shown to increase pregnancy success and reduce complications [10][11][12]. This period is important because it relates to the reproductive readiness of the couple [13].

The Omben subdistrict in Sampang Regency still exhibits the phenomenon of early marriage, including the practice of unregistered marriages due to financial and administrative constraints. This phenomenon forms an iceberg condition, where the actual number of cases is greater than the official data. Research on the perceptions of prospective brides regarding pregnancy preparation in early marriage in this region is still limited. Therefore, this study aims to analyze the perceptions of prospective brides regarding pregnancy preparation in early marriage in Omben Subdistrict, Sampang Regency.

2. Material and methods

This study used a qualitative design with a phenomenological approach to understand the meaning of the experiences of prospective brides regarding pregnancy preparation in early marriage. The researcher established variables in the form of perceptions about pregnancy preparation, which included cognitive, affective, interpretive, and evaluative aspects. The research location was in Omben District, Sampang Regency, East Java, from October 2024 to November 2025. The research population included brides-to-be aged <19 years who were registered at the Religious Affairs Office (KUA) or reported to the village officials. The researcher selected the sample using purposive sampling with the criteria of being <19 years old, residing in Omben District, able to communicate well, and willing to participate. There were 6 informants, in accordance with the needs of phenomenological research. The researcher used semi-structured interviews as the main data collection technique with instruments in the form of interview guidelines, recording devices, and notebooks, and applied source and technique triangulation to strengthen the depth of information.

Data analysis followed the content analysis technique [14], including transcription, determining meaning units, coding, categories, and themes. Data validity was maintained through member checks, peer discussions, and the preparation of audit trails.

3. Results

3.1. Characteristics Informants

This study was conducted on 6 female brides-to-be in the Omben District, aged 16 to 18 years. Based on the literature on adolescent development, adolescence is divided into two main phases, namely early adolescence (10–14 years), and late adolescence (15–19 years) [15].

Table 1 Characteristics of Prospective Bride Informants

| Informant Code | Age | Level of Education |
|----------------|-----|---|
| IFW1 | 18 | Junior High School |
| IFW2 | 16 | Junior High School |
| IFW3 | 17 | Junior High School |
| IFW4 | 16 | Senior High School (10 th grade) |
| IFW5 | 16 | Junior High School |
| IFW6 | 18 | Senior High School |

Table of characteristics of prospective bride informants

Table 2 Research results

| Theme | Sub Theme |
|---------------------|---|
| Physical readiness | Physical immaturity |
| | Medical history |
| | Fertility |
| | Ignorance of physical condition |
| Financial readiness | Anticipation of C-section |
| | Basic needs during pregnancy and childbirth |
| | Husband's responsibilities |
| | Traditional practice needs |
| Emotional readiness | Anxiety about the role of parents |
| | Impact on health |
| | Pride in becoming a mother at a young age |
| | Ambivalence about the new role as a mother |
| | Fear of the childbirth process |
| Spiritual readiness | Regular worship |
| | Charity |
| | Role model for children |
| Support system | External support has no effect |
| | Family support has an effect |
| | Supportive in-laws |

3.2. Physical readiness

The interview results show that physical readiness is one of the important aspects in the perception of early pregnancy. Several informants considered that they were not physically ready for pregnancy. Informant 2 revealed that being too thin was not ideal for pregnancy and was believed to affect comfort during pregnancy.

"It's important to be fat, ma'am" (IFW2)

"It's comfortable for the body" (IFW2)

Informant 5 also expressed the perception of physical immaturity. The informant viewed that pregnancy at a very young age was related to a weak and physically inadequate condition. This view was obtained from observations of the surrounding environment.

"Not yet because they are still children. Surely, if you get pregnant at a young age, you will be weak, hmm, what else. Anyway, my neighbor got pregnant at a young age, she was weak when walking, she was lazy, basically her child was bigger than her, hahahaha... her mother was small, not suitable, like a younger sister" (IFW5)

Informant 4 interpreted physical readiness based on health conditions that she had experienced, such as anemia and stomach disorders. The informant explained that she made efforts to maintain her physical readiness by regularly consuming iron tablets, which she felt had an impact on improving her physical condition and weight.

"Yeah, your health, stomach problems, anemia, it's okay to stock up on iron tablets, but, first you have to socialize, get tested, you guys, 11 commas (hemoglobin level), you guys, if menstruation, once a day. Be consistent, take them

regularly. You'll be fine. My weight is 38-39 kg. Take them regularly. It's mandatory. It's mandatory, but only once a week, to prevent anemia and stunting in children" (IFW4)

Meanwhile, Informant 6 associates physical readiness with fertility and regularity of the menstrual cycle.

"Because if your period is not late, you are fertile. If the date is not the same, sis. Yes, it's different by one day, not even a month" (IFW6)

Informant 1 shows uncertainty about her physical condition if she becomes pregnant in the future.

"I don't know (about my current physical condition). I don't know, sometimes you can feel nauseous (in pregnancy), sometimes you feel like this, like this" (IFW1)

3.3. Financial Readiness

The interview results show that financial readiness is perceived as an important aspect in preparing for pregnancy, especially in anticipation of delivery costs and emergency conditions. Informants 1, 3, and 5 expressed concerns about the possibility of a cesarean section.

"Yes, there are still many needs, wanting to give birth, wanting this, afraid of a C-section" (IFW1)

"It's really important. For preparation, lalala... giving birth by C-section requires money. Here, the maximum cost is 10 million rupiah if you don't have BPJS (government assurance), so it's really important. If you give birth during surgery and the costs are insufficient, you have to rush around borrowing money, which is unpleasant. It's just really important" (IFW5)

"It's important. So that it's easier later on if I get pregnant. So it's not complicated. So it's not complicated later on. So what? Comfortable (pleasant in the future), afraid that something might happen, afraid of a C-section, afraid of something like that" (IFW3)

In addition to delivery costs, the informants were also aware of the basic needs of mothers and babies. Informant 2 mentioned baby supplies and concerns about not being able to breastfeed after giving birth.

"Needs, milk, bottles" (IFW2)

"I'm afraid I won't be able to do it (breastfeeding), ma'am" (IFW2)

Informant 3 confirmed that a large amount of money was needed to prepare for pregnancy and childbirth.

"Is 10 million enough? For pregnancy preparation until birth" (IFW3)

Unlike the other informants, Informant 4 considered that the amount of money was not the main issue, but rather the husband's responsibility.

"Whatever we can afford. The important thing is responsibility. Even with 5 million (feels burdened). The important thing is responsibility" (IFW4)

3.4. Emotional Readiness

The interview results show that emotional readiness is perceived in various ways. Informant 1 expressed feelings of pressure when imagining the responsibility of caring for a child.

"It's the most stressful, hahahaha. I don't know how to take care of a child, I don't know anything. Babies are fussy at night, it's stressful" (IFW1)

Some informants associate emotional readiness with the health of the mother and fetus.

"I'm afraid something will happen, it's dangerous for the fetus, I'm afraid it will be unhealthy (the baby will be unhealthy)" (IFW2)

"It's important for health. Emotions must also be controlled" (IFW3)

"Yes, it's important. If we get emotional, it will affect the baby, just like food affects the baby" (IFW6)

"Yes, it's important for our health and our child's health. Why be stressed? If you're stressed, your amniotic fluid will burst, hahaha. I'm afraid of cramps" (IFW5)

On the other hand, some informants expressed positive feelings about becoming parents.

"I'm so happy, ma'am, to have a child" (IFW2)

"Yes, I'm touched because I'm still young and already have a child. Yes, I'm very proud" (IFW6)

Informants 3 and 4 described mixed feelings of happiness and sadness.

"Happy, yes, happy, having a friend, what else... basically happy, ma'am, of course it's complicated, but if you look at it..."

"It's a mixed feeling, yes, you immediately become a mother, at first you're happy, but then you're definitely confused, giving birth, breastfeeding, sad, yes, sad, losing your youth" (IFW4)

3.5. Spiritual Readiness

Spiritual readiness is perceived as part of pregnancy preparation. Informant 6 believes that the mother's spiritual condition will set an example for her child in the future.

"Yes, it is necessary, so that our children can imitate their parents (in religious devotion). Children will definitely follow their mother's behavior first, not their father's." (IFW6)

Informants 1 and 2 considered that worship was carried out as usual.

"Read solawat (Sending blessings upon the Prophet), pray for everyone's safety. No, ma'am, it's my own motivation, I feel the need" (IFW2)

"No, just the obligatory ones" (IFW1)

Meanwhile, Informants 4 and 5 viewed spiritual readiness as an effort to get closer to God and perform certain practices.

"A lot, praying, getting closer to God. Asking to be given a good child" (IFW4)

"Yes, of course. Usually people pray. Some want to have children, give to orphans, that's because they want to have children too. Then there are those who adopt children. That's a temptation. Yes... worship is a must" (IFW5)

Support System

The interview results show variations in perceptions regarding social support. Informants 3 and 6 expressed a lack of support from their surroundings, but this did not affect their household decisions.

"If it's someone close, like a neighbor, like an aunt... they don't support getting pregnant quickly because they're afraid. They look at whether the husband is good or not. Do they use contraception? If God gives it, then be grateful. If people talk, don't listen to them, the important thing is my husband and I" (IFW6)

"Oh, friends? I don't get much support from friends. I think they don't like me. Oh well, don't worry about it. Whatever" (IFW3)

Informant 4 expressed the importance of family support for psychological well-being.

"It's important. The most important thing is to ensure mental well-being, support from friends, family, in-laws, and partners. Friends are enough. Just from the family. Like you said, encouragement and support to start a new life, nothing else" (IFW4)

Meanwhile, Informant 5 felt strong support from her future in-laws.

"They're ready. Their family is really nice. Usually, people don't like going to their in-laws' house, but I like it there..." (IFW5)

Informant 2 views family support as an important form of assistance.

"Just so you know, ma'am. Later, the family will help" (IFW2)

4. Discussion

4.1. Physical Readiness

The results of the study show that the physical readiness of prospective brides in preparing for pregnancy covers several main categories, namely physical immaturity due to relatively thin body weight, physical immaturity in adolescence which is perceived as too weak for pregnancy, a history of diseases such as anemia and stomach disorders, perceptions of fertility, and ignorance about the ideal physical condition before pregnancy. These findings indicate that physical readiness is understood in various ways by prospective brides, based on both personal experience and observations of their surroundings.

The perception of informants who considered themselves too thin to become pregnant reflects an awareness of the importance of ideal body weight before pregnancy. Thinness can be evaluated using the Upper Arm Circumference (UAC) indicator as a marker of Chronic Energy Deficiency (CED), as well as the Body Mass Index (BMI) calculated from weight and height. Pregnancy in adolescence is known to be closely related to the risk of CEM(CED), considering that women under the age of 20 are still in the growth phase and therefore require optimal nutritional intake to meet the needs of their own bodies and their developing fetuses. If these needs are not met, pregnant adolescents become more prone to nutritional deficiencies. In addition, factors such as age at menarche, gynecological age, husband's education, and unstable physical activity levels in adolescents also contribute to the occurrence of CED [16].

Although the informants did not mention scientific reasons regarding the importance of weight in preparing for pregnancy, this perception is in line with the theory of pregnancy risk in mothers with underweight BMI. Pregnant women with a BMI below normal are known to have an increased risk of stunting of up to 60%, as well as the risk of giving birth to babies with low birth weight (LBW) and small head circumference if weight gain during pregnancy does not meet the recommendations of the Institute of Medicine (IOM) [17]. Therefore, achieving an ideal body weight before pregnancy is an important step in preventing pregnancy risks.

Additionally, the perception of "weak pregnancy" at an early age reflects the informants' understanding of the biological risks of teenage pregnancy. This is in line with the theory that pregnancy under the age of 20 carries a higher risk of complications, such as anemia, premature labor, and obstetric complications due to the immaturity of the reproductive organs [18].

Medical history, such as anemia, is also an important consideration in physical readiness. Adolescent girls are more susceptible to anemia due to increased iron requirements during growth and menstruation. If this condition is not addressed before pregnancy, the risk of complications during pregnancy may increase.

Perceptions of fertility, characterized by regular menstrual cycles, also emerge as an indicator of physical readiness. Menstrual patterns are markers of hormonal and ovarian function related to biological capacity for reproduction. Women with irregular menstrual cycles tend to have longer waiting times for pregnancy due to the risk of anovulation or disorders of the hypothalamic-pituitary-ovarian axis [19].

On the other hand, the lack of knowledge among some informants regarding the ideal physical condition before pregnancy indicates a low level of understanding about preconception health. Many women are not aware that factors such as nutritional status, BMI, anemia, folic acid supplementation needs, and birth spacing have a direct impact on maternal health and pregnancy outcomes. These findings are in line with the research [20], which shows that women's knowledge about pre-conception risks is still varied and tends to be low, especially among young and nulliparous women. This low level of knowledge is exacerbated by limited access to health information and minimal contact with health workers, especially among informants who are no longer in formal education.

One important aspect that is not fully understood by prospective brides is readiness in terms of reproductive maturity. Physical readiness is not only related to current health conditions, but also includes the biological readiness of the reproductive organs to cope with pregnancy. The lack of understanding of this aspect is a serious concern, especially for prospective brides who marry at an early age.

4.2. Financial Readiness

The results of the study show that the financial readiness of prospective brides covers four main categories, namely anticipation of cesarean section costs, fulfillment of basic needs during pregnancy and childbirth, perception of the husband's responsibility in fulfilling financial needs, and traditional customs that require economic planning.

These findings are in line with a research [21] who stated that financial constraints can lead to delays or avoidance of health care, which ultimately affects physical and mental health. In the context of early marriage, financial readiness is a crucial aspect in preventing delays in health services during pregnancy and childbirth.

All informants showed a fairly positive and interpretive perception that pregnancy requires careful economic preparation. They understand that various needs must be met, ranging from basic needs to anticipatory costs for unexpected conditions such as cesarean section delivery. This perception shows that young age is not a barrier to recognizing the importance of financial readiness, as this aspect is more closely related to the economic condition of the prospective husband, who is already working and considered to be more financially mature.

4.3. Emotional Readiness

The emotional readiness of prospective brides in this study includes anxiety about the role of parenthood, perceived emotional unpreparedness that impacts health, pride in becoming a mother at a young age, ambivalence about the new role, and fear of the delivery process.

Emotional unpreparedness, such as anxiety about the role of parenthood and fear of childbirth, is a common phenomenon in the pre-pregnancy phase, especially among adolescents. Research by Moniz et al. [22] shows that teenage pregnancy is often accompanied by psychological disorders due to an inability to accept social changes and a lack of environmental support, which can trigger anxiety, stress, depression, and even post-traumatic stress disorder.

In addition, poor psychological conditions have been shown to increase the risk of high-risk pregnancies, such as miscarriage, pre-eclampsia, eclampsia, low birth weight, and maternal mortality [22]. These findings confirm that emotional readiness plays an important role in maintaining the health of mothers and fetuses.

Women who marry at a young age generally do not have optimal emotional maturity. They tend to experience emotional instability, low self-confidence, and limited knowledge and experience in caring for babies. These conditions can hinder the process of adapting to motherhood and affect the quality of care.

The concept of maternal self-efficacy (MSE) is relevant in understanding the emotional readiness of prospective brides. Good MSE plays an important role in shaping maternal identity and parenting skills. Family support, especially emotional support and health information, plays a major role in increasing the MSE of prospective mothers [23].

4.4. Spiritual Readiness

Spiritual readiness in preparing for pregnancy in early marriage is reflected through religious practices such as regular worship, charity, and efforts to be a spiritual role model for future children. These findings indicate that prospective brides strive to build a spiritual foundation as part of their mental and emotional readiness for pregnancy.

These findings are in line with previous research [24], who state that spirituality contributes positively to the mental health and well-being of pregnant women. Spiritual beliefs can increase calmness, optimism, and the ability to face challenges during pregnancy. In addition, spiritual readiness as a role model for children is in line with the research [25], which states that children tend to imitate their parents' spiritual behavior, so that spiritual practices during the pre-pregnancy period serve as the foundation for shaping children's character in the future.

4.5. Support System

The support system is an important factor in the readiness of prospective brides to face marriage and pregnancy. Support in this study was divided into external support, immediate family support, and support from prospective in-laws. External support from the wider social environment was found to have no significant effect on the informants'

readiness. Conversely, immediate family and prospective in-laws support played an important role in building a sense of security, confidence, and emotional readiness.

Social support can be analyzed through two dimensions, namely objective support and subjective support [26]. Objective support takes the form of tangible assistance such as financial and logistical support, while subjective support relates to an individual's perception of attention, appreciation, and emotional support. Support from family and prospective in-laws in this study reflects both dimensions, which simultaneously strengthen women's readiness for pregnancy and marriage.

5. Conclusion

This study shows that the readiness of prospective brides to face pregnancy in early marriage is multidimensional, but still limited, especially in terms of physical and emotional readiness, such as biological immaturity, suboptimal nutritional status, history of anemia, low preconception health literacy, anxiety, and ambivalence towards the role of parenthood. While financial readiness is perceived to be relatively better but highly dependent on the economic stability of the prospective husband. Spiritual readiness and support from the husband and immediate family play a protective role in strengthening the mental and psychological readiness of prospective mothers. These findings are useful as a basis for strengthening pre-conception education, emotional support, and the involvement of families and health workers in improving pregnancy readiness in early marriages, as well as a reference for the development of future reproductive health programs and policies.

Compliance with ethical standards

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Disclosure of Conflict of interest

All authors declare no conflicts of interest related to this study.

Statement of Ethical Approval

This study was reviewed and approved by the Health Research Ethics Committee of Faculty of Medicine, Airlangga University, Indonesia (Ethical Approval No: 295/EC/KEPK/FKUA/2025). All participants provided informed consent prior to participation in the study.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

References

- [1] UNICEF Indonesia, United Nations Population Fund Indonesia, Embassy of Canada to Indonesia, National Development Planning Agency of Indonesia. BERANI: Empowering lives. Jakarta: UNICEF; 2023.
- [2] UNICEF Indonesia, Badan Pusat Statistik, Pusat Kajian dan Advokasi Perlindungan dan Kualitas Hidup Anak Universitas Indonesia, National Development Planning Agency of Indonesia. Child marriage in Indonesia: latest statistical overview. Jakarta: UNICEF Indonesia; 2020.
- [3] Badan Pusat Statistik Jawa Timur. People's welfare indicators of East Java Province 2024. Volume 17. Surabaya: Badan Pusat Statistik Jawa Timur; 2024.
- [4] Badan Pusat Statistik Jawa Timur. People's welfare indicators of East Java Province 2023. Volume 6. Surabaya: Badan Pusat Statistik Jawa Timur; 2023.
- [5] Yunitasari E, Pradanie R, Susilawati A. Early marriage based on transcultural nursing in Kara Village, Torjun Subdistrict, Sampang, Madura. Jurnal Ners. 2016;11(2):164-169.

- [6] Bahrudin. Intrapersonal conflict among adolescent girls forced into early marriage in Banjarbillah Village [undergraduate thesis]. Bangkalan: Faculty of Social and Cultural Sciences, Universitas Trunojoyo Madura; 2016.
- [7] Msuya NH. Child marriage: an obstacle to socio-economic development in Sub-Saharan Africa. *Journal for Juridical Science*. 2020;45(2):43–73. Msuya. Child marriage: An obstacle to socio-economic development in sub-Saharan Africa. *Journal for Juridical Science*. 2020;45(2).
- [8] Sezgin AU, Punamäki RL. Impacts of early marriage and adolescent pregnancy on mental and somatic health: the role of partner violence. *Archives of Women's Mental Health*. 2020;23:155–166. Sezgin AU, Punamäki RL. Impacts of early marriage and adolescent pregnancy on mental and somatic health: the role of partner violence. *Arch Womens Ment Health*. 2020;23(2).
- [9] World Health Organization. Adolescent pregnancy. Geneva: World Health Organization; 2019–2024.
- [10] Poels M, van Stel HF, Franx A, Koster MP. Actively preparing for pregnancy is associated with a healthier lifestyle among women during the preconception period. *Midwifery*. 2017;50:228–234.
- [11] Ignaszak-Kaus N, Ozegowska K, Piekarski P, Pawelczyk L, Jędrzejczak P. Planning and preparation for pregnancy among women with and without a history of infertility. *Ginekologia Polska*. 2018;89(2):74–79. Ignaszak-Kaus N, Ozegowska K, Piekarski P, Pawelczyk L, Jędrzejczak P. Planning and preparation for pregnancy among women with and without a history of infertility. *Ginekol Pol*. 2018;89(2).
- [12] Stephenson J, Patel D, Barrett G, Howden B, Copas A, Ojukwu O, et al. How do women prepare for pregnancy? Preconception experiences of women attending antenatal services and views of health professionals. *PLoS One*. 2014;9(7).
- [13] Rahmah N, Kurniawati W. Relationship between marriage readiness and pregnancy planning among prospective brides. *Journal of Public Health*. 2021.
- [14] Lyhne CN, Thisted J, Bjerrum M. Qualitative content analysis: framing the analytical process of inductive content analysis to develop a sound study design. *Quality and Quantity*. 2025;59:5329–5349.
- [15] World Health Organization. Adolescent health: impact. Geneva: World Health Organization; 2024 [cited 2024 Apr 8].
- [16] Nabila I. The impact of adolescent pregnancy on anemia and chronic energy deficiency among pregnant women. *Jurnal Ilmiah Kesehatan Sandi Husada*. 2020;9(1):554–559.
- [17] Anugerahwati AA, Aji AS, Afifah E, Lestari P, Lipoeto NI. Interaction between pre-pregnancy body mass index and gestational weight gain on newborn anthropometry. *Amerta Nutrition*. 2024;8(3 Suppl):208–217.
- [18] World Health Organization. Risks associated with adolescent pregnancy. Geneva: World Health Organization; 2020.
- [19] Wesselink AK, Wise LA, Hatch EE, et al. Menstrual cycle characteristics and fecundability in a North American preconception cohort. *Annals of Epidemiology*. 2016;26(7):482–487.e1.
- [20] Daly MP, et al. Women's knowledge, attitudes, and views on preconception health and intervention delivery methods: a cross-sectional survey. 2022.
- [21] Taylor K, Compton S, Kolenic GE, Scott J, Becker N, Dalton VK, Moniz MH. Financial hardship among pregnant and postpartum women in the United States, 2013–2018. *JAMA Network Open*. 2021;4(10).
- [22] Moniz MDF, Astuti AW, Hakimi M. Psychological impact of adolescent pregnancy in developing countries: a scoping review. 2024. Moniz M de F, Astuti AW, Hakimi M. Psychological Impact of Adolescent Pregnancy in Developing Countries: A Scoping Review. *Women, Midwives and Midwifery*. 2024;4(2).
- [23] Puspasari J, Nur Rachmawati I, Budiat T. Family support and maternal self-efficacy among adolescent mothers. *Enfermería Clínica*. 2018;28.
- [24] Backes DS, Gomes EB, Rangel RF, Rolim KMC, Arrusul LS, Abaid JLW. Meaning of spiritual aspects of health care in pregnancy and childbirth. *Revista Latino-Americana de Enfermagem*. 2022. Backes DS, Gomes EB, Rangel RF, Rolim KMC, Arrusul LS, Abaid JLW. Meaning of the spiritual aspects of health care in pregnancy and childbirth. *Rev Lat Am Enfermagem*. 2022;30.
- [25] Furrow J, King PE, White K. Religion and spirituality in childhood and adolescence. *Annual Review of Psychology*. 2016;67:431–459.
- [26] Xu J, Chen P, Ma X. Preconception depression, anxiety, and social support among reproductive-aged women in China. *Archives of Women's Mental Health*. 2018;21(4).