

## Review Article

# Mapping the conceptual framework of psychological well-being among pregnant adolescents and influential factors: A scoping review

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## ABSTRACT

**Introduction:** Pregnancy in adolescents has the potential risk of disrupting psychological well-being. Understanding how psychological well-being is conceptualized and assessed among adolescents, as well as identifying influential factors, is essential for developing appropriate and effective interventions. This review aims to map the conceptual approaches and assessment methods used to evaluate psychological well-being among pregnant adolescents and to identify influential factors associated with psychological well-being during pregnancy.

**Methods:** The study procedures were carried out using a scoping review that followed the Joanna Briggs Institute approach. Literature searches included terms from Emtree, MeSH, and CINAHL headings across 5 databases, including Embase, Medline (Ovid), CINAHL, Cochrane, and ScienceDirect until April 2024. After the search, a total of 8 studies were included, which met the needed criteria.

**Results:** This review identified 5 conceptual approaches used to understand and assess psychological well-being in pregnant adolescents, namely (i) self-esteem, (ii) measures on anxiety, depression, emotional bonding, general positive affect, and the absence of psychological distress, (iii) discrimination experiences, self-perceptions, and social barriers experienced, (iv) positive and negative mood concepts, and (v) positive psychological functioning. The results showed that several factors were associated with psychological well-being of pregnant adolescents, including educational level, neighborhood support, financial constraints, rejection from close people, trust, and attachment with caregiver.

**Conclusion:** This review shows the need for a more comprehensive and multidimensional approach to conceptualizing and assessing psychological well-being in pregnant adolescents. The complexity of this issue demands a thorough and inclusive approach that focuses on individual and social factors.

**Keywords:** adolescent pregnancy; psychological well-being; adolescent growth and development

## INTRODUCTION

According to World Health Organization (WHO), the rate of pregnancy among adolescents exceeds 21 million annually, particularly in low middle-income countries (LMICs). In addition, girls aged 15 to 19 account for 50% of unintended pregnancy (WHO, 2019). The UNICEF (United Nations International Children's Emergency Fund) (2022) also estimated that 13% of girls and young women gave birth before age 18.

Pregnant adolescents often bear a distinct hardship due to the need to assume adult tasks and responsibilities before reaching the appropriate developmental stage. In several countries around the world, premarital pregnancy is considered

a careless choice and immoral behavior, exposing pregnant adolescents to criticism and marginalization (Govender et al., 2020; Manhica et al., 2021; Osok et al., 2018). These societal demands, as well as the physical and psychological changes of pregnancy, pose significant social, economic, and cultural barriers (Recto & Champion, 2018).

Several studies have shown that pregnancy causes adolescents to experience socially unpleasant situations and has the potential to disrupt the development of good social-emotional relationships with people (Bermea et al., 2016; Chambers & Toller Erausquin, 2015; Moseson et al., 2019). Pregnant adolescents often report feelings of regret, guilt, loneliness, alienated, failure, and frustration due to emotional and psychosocial pressure (Govender et al., 2020; Olajubu et al., 2021). Affected individuals also drop out of school due to embarrassment and a lack of empathy from parents, teachers, and peers (Bermea et al., 2016).

Various studies on pregnant adolescents have primarily focused on the mental or psychological disorders caused by the transition to motherhood. Existing literature also focuses on and emphasizes that pregnant adolescents tend to experience a high incidence of psychosocial disorders, such as low self-esteem, self-isolation, self-destructive behavior, and suicide (Muso Fubam et al., 2019; Webb et

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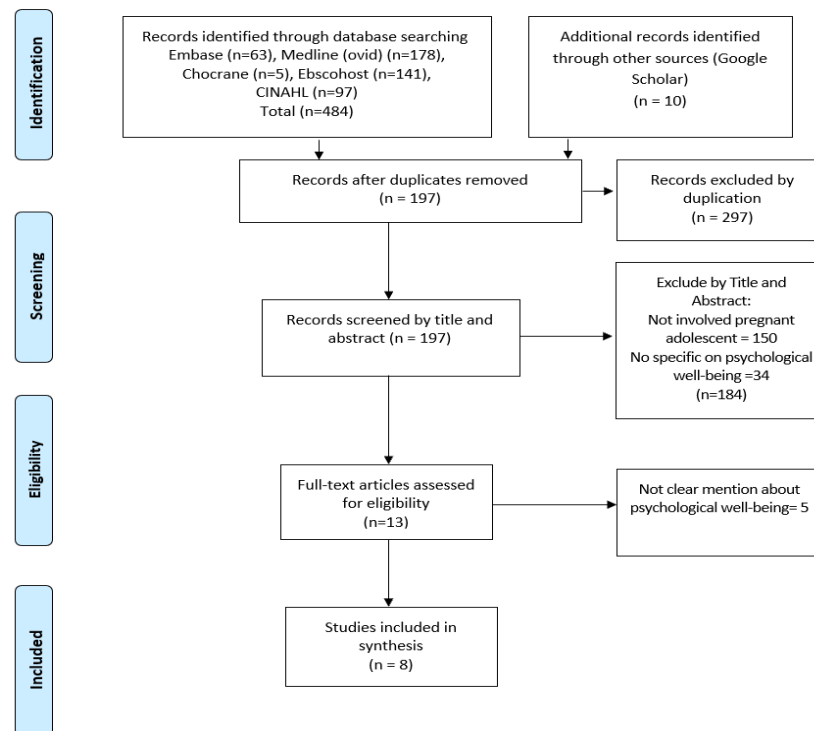


Figure 1. PRISMA Flow Diagram

al., 2023). These individuals are more likely to experience postpartum depression, which is frequently associated with their challenges in adjusting to new roles as mothers (Ladores & Corcoran, 2019; Lucas et al., 2019). Consequently, interventions are often directed toward reducing mental and psychological health issues.

As defined by WHO, health is not solely the absence of physical and mental disorders but also comprises psychological well-being. Over the years, there have been extensive studies on psychological well-being in a variety of vulnerable populations, including those living with HIV (Human Immunodeficiency Virus) (Rzeszutek et al., 2021), people with mental disorders (Browne et al., 2017), cancer survivors (Abu-Helalah et al., 2014; Yousefi Afrashteh & Masoumi, 2021), and caregivers of mental illness patients (Gupta et al., 2015). Despite the existing literature, a conceptual approach to assess psychological well-being, an abstract term that describes and defines multiple aspects of mental health, has not been well defined or investigated in pregnant adolescents population. Therefore, this review aims to map the existing body of studies by identifying and describing the conceptual approaches and assessment methods/tools used to examine psychological well-being among pregnant adolescents, and exploring influential factors. The results are expected to bridge knowledge gaps in the field and lay the groundwork for creating evidence-based policies that can enhance well-being.

The current review was guided by the question “What does the literature reveal about the concept of psychological well-being among pregnant adolescents, and what factors are associated with their psychological well-being during pregnancy?”

## METHODS

### Study Design

This Scoping Review used a framework by The Joanna Briggs Institute Approach, which consisted of 9 stages, namely 1) Identifying, defining, and aligning the objective/s and question/s, 2) Developing and aligning the inclusion criteria with the objective/s and question/s, 3) Describing the planned approach to evidence searching, selection, data extraction, and presentation of the evidence, 4) Searching for the evidence, 5) Selecting the evidence, 6) Extracting the evidence, 7) Analysis of the evidence, 8) Presentation of the results, 9) Summarizing the evidence concerning the purpose of the review, making conclusions and noting any implications of findings.

### Search Strategy

The databases used to conduct the literature search were selected based on the topic of adolescent pregnancy. This included Embase, Medline (Ovid), CINAHL Ebscohost, Cochrane, and ScienceDirect. A literature search using keywords and vocabulary control in Emtree, MeSH, and CINAHL subject headings, inception up to April 2024. The search terms included "adolescent OR teenage pregnancy" OR "pregnancy in adolescent"; "psychosocial OR maternal support" OR "psychosocial healthcare" and "psychological well-being" OR "mental well-being" OR "mental health" OR "welfare."

### Eligibility Criteria

The relevant literature included in the review must meet the inclusion criteria, as follows: (1) Participants in the study were pregnant adolescents aged 15 to 19 years. (2)

Studies were addressed by either (a) the conceptualization of psychological well-being (such as how psychological well-being was defined, described, or measured in the study), or (b) the factors associated with psychological well-being among pregnant adolescents, or both. (3) The study design used could be quantitative (cross-sectional, case-control, cohort, randomized controlled trial [RCT]) or qualitative. (4) Available in full text.

All articles underwent 2 screening stages, namely title and abstract screening, followed by full-text screening, and 2 authors were involved in this screening process.

## Study Selection

The EndNote X9, as bibliographic management software, was used to organize bibliographies and references and check for duplicates. In this study, 2 independent authors hand-checked the reference lists. First, title and abstract screening were conducted to identify the potentially eligible studies. Second, full-text screening was carried out to assess eligibility based on the inclusion and exclusion criteria. A necessary consultation with the third author was performed to resolve any disagreement through discussion.

## Data Extraction

Independently, first author extracted the data, while second author verified its accuracy. Experts author had to be involved to resolve disagreements through debate. The writers discussed any problems with ambiguity in this study. Furthermore, the authors' names, study location, participant count, screening instrument, findings, comparison of intervention and control therapy, duration of follow-up, and conclusions were among the details extracted from the study.

## RESULTS

### Characteristic of the Included Study

The initial database search identified 484 references, with 10 additional studies identified through manual reference list searches. After deleting 297 duplicated articles, 197 studies remained. The titles and abstracts for the articles were screened, and 13 studies were pulled for full-text retrieval. A total of 8 studies were finally included in the review (Figure 1), indicating a diverse range of studies. A total of 5 of the studies were cross-sectional, 2 were qualitative, and 1 was quasi-experimental. Approximately 703 pregnant adolescents were included in the 8 studies. Most studies were conducted in Asia (n=4), consisting of some studies implemented in the United States (n=3), Malaysia (n=2), Indonesia (n=1), Turkey (n=1), and Africa (n=1).

### Descriptions of the Concepts of Psychological Well-Being were used in Pregnant Adolescents

This review identified 5 conceptual approaches used in the primary studies, which were included in this scoping review to explain and assess psychological well-being among pregnant adolescents. One conceptual approach, used by Stevenson (1990) and Akgör et al. (2022), emphasized self-esteem as a key dimension of psychological well-being. These studies used Rosenberg Self-Esteem Scale (RSES) as the assessment tool. Self-esteem was defined as individuals' overall sense of self-worth and believed to shape behaviors, emotions, and attitudes.

A second approach was applied by Nordin and Wan Yunus (2012) in a study conducted in a Malaysian shelter for pregnant adolescents, adopting a broader mental health framework. This comprised both psychological well-being and psychological distress. Mental Health Inventory (MHI) developed by Heubeck and Neill (2000) was used to assess components such as anxiety, depression, positive affect, emotional bonding, and psychological distress. Psychological well-being was categorized into high, moderate, and low levels based on mental health stability and social functioning (Nordin and Wan Yunus, 2012).

A third study by Nnodim and Albert (2016), conducted in Malaysia, did not explicitly present a defined conceptual framework for psychological well-being. However, the study focused on aspects such as self-esteem, fear of the unknown, and feelings of inadequacy, which were indicators of psychological well-being challenges in pregnant adolescents.

The fourth approach was based on the widely recognized Ryff and Keyes' (1995) model of psychological well-being, which was used in studies by Kheswa and Pitso (2014) and Lena et al. (2021). This model assessed well-being through 6 key dimensions, namely self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth.

Lastly, Tung et al. (2021) used a more simplified conceptual approach by focusing on 2 emotional indicators of psychological well-being during pregnancy, namely positive and depressive mood. These indicators reflected the emotional state of pregnant adolescents and were used to evaluate their overall psychological well-being.

## Factors Associated with Psychological

### Well-being among Pregnant Adolescents

This review revealed several significant factors that influenced psychological well-being of pregnant adolescents. Adolescents with higher levels of education were observed to have better psychological well-being. Social support was favorably associated with psychological well-being, particularly from family and partners. Support and trust from carers were also found to positively impact adolescents' psychological well-being. However, it was consistently observed that financial constraints had a negative impact, leading to increased stress and lower overall well-being.

## DISCUSSION

Studies on psychological well-being among pregnant adolescents remained limited, as evidenced by the small number of studies included in this review. Even more interestingly, there was considerable variability in the conceptual approaches used to define and assess psychological well-being in this population. The 5 conceptual approaches were (i) using self-esteem; (ii) using measures on anxiety, depression, emotional bonding, general positive affect, and the absence of psychological distress; (iii) using discrimination experiences, self-esteem perceptions, and social barriers experienced; (iv) using positive and negative mood concepts; (v) using positive psychological functioning as outlined in Ryff's multidimensional model. This result provided a complex understanding that the conceptual approaches of psychological well-being in studies of pregnant adolescents were very diverse and significantly different in scope and focus. Therefore, an analysis was needed regarding the limitations of using these conceptual approaches.

**Table 1.** Summary of Include Study

No	Author (Year), Location	Methodology and Population	Aims	Conceptual Approach of Psychological Well-being	Measurement Tools Used	Factors Associated with Psychological Well-being
1	Nordin <i>et al.</i> (2012), Malaysia	Descriptive analytic, 50 pregnant adolescents	To identify the level of psychological wellbeing To examine whether there are significant differences between psychological well-being and demographic variables, namely, age, hometown and educational level among the pregnant unwed mothers.	Based on general mental health and well-being; balance of distress and positive affect	MHI	Social support from the health worker.
2	Pitso <i>et al.</i> (2014), Africa	Cross sectional study, 106 pregnant adolescents	To determine the psycho-social wellbeing of pregnant teenagers.	Ryff's psychological well-being model (6 domains)	Ryff's Psychological Questionnaire	Educational level, support financial and emotional from partner, self-confident and communication with caregivers
3	Nnodim & Albert (2016), Malaysia	Cross sectional study, 120 pregnant adolescents	To determine the effect of teenage pregnancy on the academic advancement and socio-psychological wellbeing of women	Not clearly stated; focused on self-esteem, fear of unknown, inadequacy	Not specified	Emotional instability, self-perception
4	Stevenson (1999), USA	Cross sectional study, 110 single pregnant teens	To examined the role of social support and relationship quality on the well-being of pregnant adolescents	Psychological well-being conceptualized as self-esteem	Rosenberg Self-Esteem Scale	Support from parent, partner
5	Tung <i>et al.</i> (2021), USA	Longitudinal study, 135 adolescent mothers	To investigate family and neighborhood factors linked to social connectedness that predict psychological wellbeing during adolescent pregnancy and offspring outcomes.	Psychological well-being described via mood states (positive/depressive mood)	PANAS	Attachment with caregiver during pregnancy
6	Lena <i>et al.</i> (2021), Indonesia	Qualitative Research, 3 single adolescent mothers	To determine the psychological well-being of single mother adolescents	Ryff's psychological well-being model (6 domains)	Ryff's Psychological Questionnaire	Not reported
7	Akgör <i>et al.</i> (2022), Turkey	Cross-sectional study, 100 pregnant adolescents	To compare psychiatric profiles and self-concept between Turkish and refugee pregnant adolescents	Psychological well-being conceptualized as self-esteem	Rosenberg Self-Esteem tools	Not reported
8	Griffin (1994), USA	Quasi-experimental study, 79 healthy pregnant adolescents	To evaluate the effects of participation in a 6-week aerobic exercise program on pregnant adolescents' depression, self-esteem, and physical discomforts of pregnancy.	Psychological well-being conceptualized as self-esteem	CSEI	Not reported

Note: USA: United States of America; MHI: Mental Health Inventory; PANAS: Positive and Negative Affect Schedule; CSEI: Coopersmith's Self-Esteem Inventory

The first conceptual approach used to understand psychological well-being among pregnant adolescents was through self-esteem concept, as measured by instruments such as RSES and Coopersmith's Self-Esteem Inventory (CSEI). RSES was used by Stevenson (1990), and the Coopersmith Self-Esteem Inventory was used by Griffin (1994). 29 RSES assessments consisted of 10 items, including self-esteem, the stability of self-concept, faith in people, sensitivity to criticism, depressive affect, daydreaming, psychosomatic symptoms, interpersonal threat, participation in discussions, parental interest, relationship with father, and psychic

isolation. This conceptual approach assumed that having a high score of self-esteem leads to psychological well-being. Meanwhile, CSEI consisted of 4 domains, including: General Self-Esteem, Social Self-Peer Relationships, Home and Family Relationships, and Academic and School Performance. Although both approaches use the term "self-esteem", they differ in the domains used to measure self-esteem itself. Rosenberg self-esteem emphasized a broader domain, while Coopersmith's Self-Esteem was a more specific domain.

Self-esteem referred to how individuals evaluated their worth and was often used in assessing psychological well-



being. However, this approach was not very appropriate as it only covered 1 dimension and had a narrow meaning. The conceptual approach of self-esteem, as used by both RSEM and CSEI, was a general one. This suggested that when it was related to assessing psychological well-being of pregnant adolescents, it was not capturing their complete challenges. Furthermore, this could have a significant impact on the provision of interventions, leading to those that were not appropriate, effective, or comprehensive.

A study by [Nordin et al. \(2012\)](#) in Malaysia adopted a broader conceptual approach based on [Heubeck and Neill's \(2000\)](#) framework, which was significantly different from [Griffin \(1994\)](#) and [Stevenson \(1990\)](#). This defined psychological well-being primarily in terms of self-esteem. The approach conceptualized psychological well-being as the absence of anxiety, depression, and psychological distress, along with the presence of emotional bonding and general positive affect. Accordingly, psychological well-being in their study was assessed using MHI, which focused on a wide enough scope of the assessment to provide meaning to psychological well-being. Although quite comprehensive, this concept still had some limitations, which were related to the social dimensions of psychological well-being. The Heubeck and Neill paradigm, as applied in this context, could not capture the other important factors, such as social support, community involvement, and interpersonal relationships, which were crucial components of pregnant adolescents' psychological well-being and overall mental health.

The study by [Nnodim and Albert \(2016\)](#) took a unique approach to understanding psychological well-being of pregnant adolescents. In a field where the definition of psychological well-being was not always clear, this study focused on measuring experiences of discrimination, perceptions of self-esteem, and social barriers faced by adolescent mothers. The study observed that experiences of discrimination could lead to increased psychological distress and decreased self-esteem, which were crucial components of well-being. Similarly, self-esteem, a predictor of psychological health, influenced how individuals were perceived and their abilities. While these aspects could not fully capture psychological well-being, in terms of personal growth and autonomy, in addition to discrimination, self-esteem, and social barriers, the study's results were significant in understanding psychological well-being of pregnant adolescents.

[Tung et al. \(2021\)](#) observed that positive and negative moods were used to measure psychological well-being. This approach emphasized the subjective perception of the individual's "mood." The measuring instrument used was the Positive and Negative Affect Schedule (PANAS), a tool used to capture a person's affective state through 2 dimensions, namely Positive Affect (PA) and Negative Affect (NA) simultaneously. Using this tool to measure a person's psychological well-being had several weaknesses, particularly in the context of pregnant adolescents. Rapid environmental changes and stimuli from the surrounding environment could quickly change mood. The use of this approach to measure well-being of pregnant adolescents had been observed to have many weaknesses, where PANAS could not capture long-term changes in psychological well-being of pregnant adolescents, which was influenced by several factors, such as internal factors, their closest relationships, and relationships with the broader environment.

In comparison to other previous conceptual approaches, psychological well-being proposed by Ryff was the most complete and clear, describing and assessing pregnant adolescents' psychological well-being ([Ryff, 1989](#); [Ryff, 2014](#)). According to Ryff, psychological well-being was

centered around achieving happiness and life satisfaction through positive psychological functioning. Ryff defined psychological well-being as a condition in which individuals exhibit positive attitudes towards others, could regulate their attitudes and behavior without any pressure from others, were independent, and had the opportunity to improve their lives for the better in the future. Psychological well-being was assessed across 6 domains, namely self-acceptance, positive relationships with others, autonomy, environmental mastery, personal growth, and purpose in life ([Keyes, 1995](#); [Ryff, 1989](#)). These were very important for pregnant adolescents' transitioning to motherhood ([Pitso, 2014](#)).

Ryff's psychological well-being offered a holistic understanding of what it suggested to be psychologically healthy among this population. Furthermore, the comprehensive approach not only emphasized the absence of mental distress but also indicated positive functioning and fulfillment across multiple aspects of life ([Ryff, 2014](#)). A psychologically well-off individual experienced autonomy and could make independent decisions without external influence. These individuals also had a sense of purpose in life, resulting in a clear direction and meaning in their existence. Such an individual was free to make decisions without pressure from others, could use all available resources in their environment for self-development, maintained positive relationships, and accepted all aspects of themselves.

The use of this conceptual approach in the population of adolescent mothers and understanding these dimensions was particularly relevant, could help nurses and healthcare providers anticipate potential health risks for pregnant adolescents when these domains were disrupted. For instance, those lacking a sense of purpose in life could be more susceptible to depression, mood disorders, and even suicidal risk. Adolescents who lacked autonomy experienced frustration and stress under the influence of others. Furthermore, pregnant adolescents with poor social relationships struggled to receive the positive support essential during this transition. Recognizing these dimensions allowed healthcare providers to address specific areas of well-being, providing targeted support to reduce these risks.

In this review study, psychological well-being of pregnant adolescents was found to vary and influenced by educational, social support received from close people such as parents and husbands/partners, trust and attachment with health workers, and financial conditions. [Pitso et al \(2014\)](#) reported that the higher the level of education, the better psychological well-being of adolescents. Pregnant adolescents with a higher academic level were assumed to exhibit better problem-solving and critical-thinking skills, which influenced the development of an adaptive mindset. The school allowed individuals to interact with a broader social environment, various personalities, and could encounter more problems ([Verhoeven et al., 2018](#)). Furthermore, formal and non-formal education increased cognitive function, life satisfaction, and self-confidence, which indicated the educational contribution to improving individual well-being ([Noble et al., 2020](#)).

Social support received from close people was also positively correlated with adolescents' psychological well-being. [Tung et al. \(2021\)](#) reported that pregnant adolescents who received positive emotional support from their social environment tended to experience positive mood during pregnancy, which affected their capability in stress regulation and improved sense of control over challenges. According to [Pitso et al. \(2014\)](#), pregnant adolescents who received adequate financial support from partners had higher psychological well-being. Adequate financial support was assumed to reduce

financial stress and create a sense of security and stability among pregnant adolescents. Furthermore, it was important to note that the role of the father or partner in providing emotional and financial support significantly influenced the well-being of pregnant adolescents.

A study by Nordin et al (2012) emphasized the importance of support from health workers. Pregnant adolescents living in shelters reported that comprehensive support from health workers and social practitioners at the shelter made adolescents feel happier and relatively emotionally stable. Through this finding, it was observed that social support was a crucial factor in building resilience among pregnant adolescents during the transition process to motherhood.

Another factor that also played a significant role in psychological well-being of pregnant adolescents was financial constraints (Pisto et al, 2014; Lena et al., 2021). One of the main obstacles and issues when adolescents were pregnant was their joblessness, having a husband who is also unemployed, or being manual laborers. This had implications for their ability to meet their daily needs. Financial tension had an impact on increasing psychological stress.

### Study Gaps and Implications for Further Study

This review identified 3 key gaps. First, the conceptual approaches to defining and measuring psychological well-being among pregnant adolescents remained fragmented. Therefore, a conceptual approach for determining psychological well-being of adolescent mothers through an analysis of their unique demands and life obstacles must be developed. Second, there was no comprehensive framework that integrated educational factors, social support, and financial conditions into the assessment of psychological well-being of pregnant adolescents. These factors were fragmented from several studies using different approaches, thereby limiting the understanding of how these factors interacted with each other in the socio-ecological context of adolescents comprehensively. Third, the previous studies primarily focused on cross-sectional assessments of pregnant adolescents' psychological well-being, which could not fully capture the potential change over time of psychological well-being across different stages of the perinatal period.

Future studies must explore unique aspects of psychological well-being that were relevant to pregnant adolescents' age, developmental, and social context. This study guided the modification of psychological well-being concepts by providing insights into the specific needs and challenges of pregnant adolescents, making it more context-sensitive. Developmental self-report measures of psychological well-being specific to pregnant adolescents were essential to ensure accurate capture of psychological well-being among this population. Intervention study developments were also based on adapted dimensions of psychological well-being, such as programs focusing on strengthening autonomy and self-acceptance.

### CONCLUSION

In conclusion, the results of this review emphasize the importance of understanding psychological well-being of pregnant adolescents as a complex conceptual approach influenced by several factors. Psychological well-being is assessed using different conceptual approaches, such as self-esteem, emotional state, experiences of discrimination, and positive psychological functioning. This study also reveals that educational attainment, social support, financial constraints, and relationships with caregivers and healthcare providers

significantly impact well-being. Future studies must focus on developing comprehensive models and assessment tools that consider the complex socio-ecological factors affecting pregnant adolescents, addressing both internal psychological factors and external social and economic conditions. This approach enables the design of more effective interventions to improve psychological well-being of these individuals. Furthermore, it is required to adopt longitudinal methodologies, studying how well-being grows during pregnancy, childbirth, and early parenthood among pregnant adolescents.

### Declaration of Interest

The authors declare no conflicts of interest.

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### Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

### REFERENCES

- Abu-Helalah, M., Al-Hanaqta, M., Alshraideh, H., Abdulbaqi, N., & Hijazeen, J. (2014). Quality of life and psychological well-being of breast cancer survivors in Jordan. *Asian Pacific Journal of Cancer Prevention*, 15(14), 5927-5936. <https://doi.org/10.7314/apjcp.2014.15.14.5927>
- Akgör, U., Ekinci, Ö., Soyak, B., & Kuru, O. (2022). Psychological Well-being among Refugee Pregnant Adolescents: A Controlled Study from Turkey. *Eastern Journal Of Medicine*, 27(1), 119-125. <https://doi.org/10.5505/ejm.2022.98975>
- Bermea, A. M., Toews, M. L., & Wood, L. G. (2018). "Students getting pregnant are not gonna go nowhere": Manifestations of stigma in adolescent mothers' educational environment. *Youth & Society*, 50(3), 423-436. <https://doi.org/10.1177/0044118x16661734>
- Browne, J., Penn, D. L., Meyer-Kalos, P. S., Mueser, K. T., Estroff, S. E., Brunette, M. F., Correll, C. U., Robinson, J., Rosenheck, R. A., Schooler, N., Robinson, D. G., Addington, J., Marcy, P., & Kane, J. M. (2017). Psychological well-being and mental health recovery in the NIMH RAISE early treatment program. *Schizophrenia Research*, 185, 167-172. <https://doi.org/10.1016/j.schres.2016.11.032>
- Chambers, B. D., & Toller Erausquin, J. (2015). The promise of intersectional stigma to understand the complexities of adolescent pregnancy and motherhood. *Journal of Child and Adolescent Behaviour*, 3(5), Article 249. <https://doi.org/10.4172/2375-4494.1000249>
- Govender, D., Naidoo, S., & Taylor, M. (2020). "I have to provide for another life emotionally, physically and financially": Understanding pregnancy, motherhood and the future aspirations of adolescent mothers in KwaZulu-Natal South, Africa. *BMC Pregnancy and Childbirth*, 20(1), Article 620. <https://doi.org/10.1186/s12884-020-03319-7>

- Griffin, D. K. (1994). Aerobic exercise, psychological well-being, and physical discomforts during adolescent pregnancy. *Research in Nursing & Health*, 17(4), 253-263.
- Gupta, A., Solanki, R., Koolwal, G., & Gehlot, S. (2015). Psychological well-being and burden in caregivers of patients with schizophrenia. *International Journal of Medical Science and Public Health*, 4(1), 53-59. <https://doi.org/10.5455/ijmsph.2015.0817201416>
- Heubeck, B. G., & Neill, J. T. (2000). Confirmatory Factor Analysis and Reliability of the Mental Health Inventory for Australian Adolescents. *Psychological Reports*, 87, 431-440. <https://doi.org/10.2466/pr0.2000.87.2.431>
- Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
- Kheswa, J. G., & Pitso, T. J. (2014). Psychological well-being and sexual behaviour of South African teenage mothers: An overview. *Mediterranean Journal of Social Sciences*, 5(10), 563-571. <https://doi.org/10.5901/mjss.2014.v5n10p563>
- Ladores, S., & Corcoran, J. (2019). Investigating postpartum depression in the adolescent mother using 3 potential qualitative approaches. *Clinical Medicine Insights: Psychiatry*, 13, 1-6. <https://doi.org/10.1177/1179556519884042>
- Lena, A. T., Damayanti, Y., & Benu, J. M. Y. (2021). Our stories: A woman, a teenager, a single mother psychological well-being of a single mother adolescents. *Annals of Epidemiology*, 3(3), 360-380. <https://doi.org/10.1016/j.annepidem.2008.03.006>
- Lucas, G., Olander, E. K., Ayers, S., & Salmon, D. (2019). No straight lines - young women's perceptions of their mental health and wellbeing during and after pregnancy: A systematic review and meta-ethnography. *BMC Women's Health*, 19(1), Article 152. <https://doi.org/10.1186/s12905-019-0848-5>
- Manhica, H., Kidayi, P., Carelli, I., Gränsmark, A., Nsubuga, J., George-Svahn, L., Mattson, J., & Björling, G. (2021). Promoting sustainable health and wellbeing for pregnant adolescents in Uganda – A qualitative case study among health workers. *International Journal of Africa Nursing Sciences*, 14, Article 100306. <https://doi.org/10.1016/j.ijans.2021.100306>
- Moseson, H., Mahanaimy, M., Dehlendorf, C., & Gerds, C. (2019). "...Society is, at the end of the day, still going to stigmatize you no matter which way": A qualitative study of the impact of stigma on social support during unintended pregnancy in early adulthood. *PLoS One*, 14(5), Article e0217308. <https://doi.org/10.1371/journal.pone.0217308>
- Muso Fubam, R., Ademola Odugogbe, A.-T., & David Dairo, M. (2019). Psychological and social effects of pregnancy in unmarried young women in Bui, Northwest, Cameroon. *American Journal of Biomedical and Life Sciences*, 7(6), 123-130. <https://doi.org/10.11648/j.ajbls.20190706.21>
- Nnodim, A., & Albert, C. (2016). Effects of teenage pregnancy on the academic and socio-psychological well being of rural women in Etche ethnic nationality, Rivers State. *International Journal of Asian Social Science*, 6(7), 406-411. <https://doi.org/10.18488/journal.1/2016.6.7/1.7.406.411>
- Noble, C., Medin, D., Quail, Z., Young, C., & Carter, M. (2021). How does participation in formal education or learning for older people affect wellbeing and cognition? A systematic literature review and meta-analysis. *Gerontology & Geriatric Medicine*, 7, 1-15. <https://doi.org/10.1177/2333721420979306>
- Nordin, N., Wahab, R. A., & Yunus, F. W. (2012). Psychological well-being of young unwed pregnant women: Implications for extension education and programs. *Procedia - Social and Behavioral Sciences*, 68, 700-709. <https://doi.org/10.1016/j.sbspro.2012.12.260>
- Olajubu, A. O., Omoloye, G. O., Olajubu, T. O., & Olowokere, A. E. (2021). Stress and resilience among pregnant teenagers in Ile-Ife, Nigeria. *European Journal of Midwifery*, 5, Article 9. <https://doi.org/10.18332/ejm/134181>
- Osok, J., Kigamwa, P., Huang, K. Y., Grote, N., & Kumar, M. (2018). Adversities and mental health needs of pregnant adolescents in Kenya: Identifying interpersonal, practical, and cultural barriers to care. *BMC Women's Health*, 18(1), Article 96. <https://doi.org/10.1186/s12905-018-0581-5>
- Pitso, T., Kheswa, J., Nekhwevha, F., & Sibanda, M. (2014). The Psycho-Social Wellbeing of the Teenage Mothers. *Mediterranean Journal of Social Sciences*, 5(10), 610-619. <https://doi.org/10.5901/mjss.2014.v5n10p610>
- Recto, P., & Champion, J. D. (2018). "We don't want to be judged": Perceptions about professional help and attitudes towards help-seeking among pregnant and postpartum Mexican-American adolescents. *Journal of Pediatric Nursing*, 42, 111-117. <https://doi.org/10.1016/j.pedn.2018.04.010>
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10-28. <https://doi.org/10.1159/000353263>
- Rzeszutek, M., Gruszczynska, E., Pieta, M., & Malinowska, P. (2021). HIV/AIDS stigma and psychological well-being after 40 years of HIV/AIDS: A systematic review and meta-analysis. *European Journal of Psychotraumatology*, 12(1), Article 1990527. <https://doi.org/10.1080/20008198.2021.1990527>
- Stevenson, W., Maton, K. I., & Teti, D., M (1999). Social support, relationship quality, and well-being among pregnant adolescents. *Journal of Adolescence*, 22, 109-121. <https://doi.org/10.1006/jado.1998.0204>
- Tung, I., Keenan, K., & Hipwell, A. E. (2022). Adolescent mothers' psychological wellbeing during pregnancy and infant emotional health. *Journal of Clinical Child & Adolescent Psychology*, 51(2), 210-226. <https://doi.org/10.1080/15374416.2021.1981339>
- UNICEF. (2022). *UNICEF Annual Report 2022*.
- Verhoeven, M., Poorthuis, A. M. G., & Volman, M. (2019). The role of school in adolescents' identity development: A literature review. *Educational Psychology Review*, 31(1), 35-63. <https://doi.org/10.1007/s10648-018-9457-3>
- Webb, L., Kyaddondo, D., Ford, T., Bergqvist, A., & Cox, N. (2023). Psychosocial health in adolescent unmarried motherhood in rural Uganda: Implications for community-based collaborative mental health education, and empowerment strategies in the prevention of depression and suicide. *Transcultural Psychiatry*, 60(3), 537-551. <https://doi.org/10.1177/13634615221147361>
- WHO. (2019). *World Health Statistics 2019*.
- Yousefi Afrashteh, M., & Masoumi, S. (2021). Psychological well-being and death anxiety among breast cancer survivors during the COVID-19 pandemic: The mediating role of self-compassion. *BMC Women's Health*, 21(1), Article 387. <https://doi.org/10.1186/s12905-021-01533-9>