




IMPACT OF ADOLESCENT PREGNANCY ON MATERNAL PSYCHOLOGICAL DEVELOPMENT AND RISK OF MENTAL DISORDERS

IMPACTO DA GRAVIDEZ NA ADOLESCÊNCIA NO DESENVOLVIMENTO PSICOLÓGICO MATERNO E NO RISCO DE TRANSTORNOS MENTAIS

IMPACTO DEL EMBARAZO ADOLESCENTE EN EL DESARROLLO PSICOLÓGICO MATERNO Y EN EL RIESGO DE TRASTORNOS MENTALES

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ABSTRACT

Introduction: Adolescent pregnancy represents a complex public health challenge associated with biological vulnerability, socioeconomic disadvantage, and increased susceptibility to psychological distress. Early pregnancy can disrupt neurodevelopmental trajectories, intensify emotional instability, and heighten exposure to adverse childhood experiences, all of which may shape long-term maternal mental health.

Objective: The main objective of this systematic review was to evaluate the impact of adolescent pregnancy on maternal psychological development and the onset or worsening of mental disorders. Secondary objectives included assessing associations with depression, anxiety, trauma-related symptoms, parenting stress, and long-term psychiatric outcomes.

Methods: A systematic search was conducted in PubMed, Scopus, Web of Science, Cochrane Library, LILACS, ClinicalTrials.gov, and ICTRP. Eligible studies included observational or interventional research evaluating mental health outcomes in pregnant adolescents or adolescent mothers. Inclusion criteria comprised studies published in the last five years, with expansion to ten years if fewer than ten eligible articles were available. Human studies were prioritized; animal and in vitro studies were considered only for mechanistic insights. Data extraction followed PRISMA guidelines, and risk of bias was assessed through RoB 2, ROBINS-I, and QUADAS-2, with certainty of evidence evaluated using GRADE.

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Results and Discussion: A total of 18 studies were included in the final review. The evidence consistently showed heightened rates of depressive symptoms, anxiety disorders, trauma exposure, impaired emotional regulation, and intergenerational psychosocial stress among adolescent mothers. Neurodevelopmental immaturity, socioeconomic adversity, and limited access to support services were recurrent mediators across studies.

Conclusion: Adolescent pregnancy is strongly associated with increased vulnerability to mental health disorders and impaired psychological development. The findings highlight the need for integrated screening, targeted psychosocial interventions, and multidisciplinary follow-up strategies. Improved mental health support during pregnancy and postpartum may mitigate long-term psychiatric consequences in this high-risk population.

Keywords: Pregnancy in Adolescence. Mental Disorders. Maternal Health. Psychological Development.

RESUMO

Introdução: A gravidez na adolescência representa um desafio complexo de saúde pública, associado à vulnerabilidade biológica, desvantagem socioeconômica e maior suscetibilidade ao sofrimento psicológico. A gravidez precoce pode interromper trajetórias de neurodesenvolvimento, intensificar a instabilidade emocional e aumentar a exposição a experiências adversas na infância, fatores que podem influenciar a saúde mental materna a longo prazo.

Objetivo: O principal objetivo desta revisão sistemática foi avaliar o impacto da gravidez na adolescência sobre o desenvolvimento psicológico materno e o surgimento ou agravamento de transtornos mentais. Os objetivos secundários incluíram avaliar associações com depressão, ansiedade, sintomas relacionados ao trauma, estresse parental e desfechos psiquiátricos de longo prazo.

Métodos: Foi realizada uma busca sistemática nas bases PubMed, Scopus, Web of Science, Cochrane Library, LILACS, ClinicalTrials.gov e ICTRP. Estudos elegíveis incluíram pesquisas observacionais ou intervencionistas que avaliassem desfechos de saúde mental em adolescentes grávidas ou mães adolescentes. Os critérios de inclusão abrangeram estudos publicados nos últimos cinco anos, com expansão para dez anos caso menos de dez artigos elegíveis fossem identificados. Estudos em humanos foram priorizados; estudos em animais e in vitro foram considerados apenas para esclarecimentos mecanísticos. A extração de dados seguiu as diretrizes PRISMA, e o risco de viés foi avaliado por meio dos instrumentos RoB 2, ROBINS-I e QUADAS-2, com a certeza da evidência analisada utilizando o GRADE.

Resultados e Discussão: Um total de 18 estudos foi incluído na revisão final. As evidências demonstraram de forma consistente maiores taxas de sintomas depressivos, transtornos de ansiedade, exposição ao trauma, prejuízo na regulação emocional e estresse psicossocial intergeracional entre mães adolescentes. Imaturidade neurodesenvolvimental, adversidade socioeconômica e acesso limitado a serviços de apoio foram mediadores recorrentes entre os estudos.

Conclusão: A gravidez na adolescência está fortemente associada a maior vulnerabilidade a transtornos mentais e prejuízo no desenvolvimento psicológico. Os achados destacam a necessidade de triagem integrada, intervenções psicossociais direcionadas e estratégias multidisciplinares de acompanhamento. Melhorar o apoio à saúde mental durante a gestação e o pós-parto pode mitigar consequências psiquiátricas de longo prazo nessa população de alto risco.



Palavras-chave: Gravidez na Adolescência. Transtornos Mentais. Saúde Materna. Desenvolvimento Psicológico.

RESUMEN

Introducción: El embarazo adolescente representa un complejo desafío de salud pública, asociado con vulnerabilidad biológica, desventaja socioeconómica y mayor susceptibilidad al malestar psicológico. El embarazo temprano puede interrumpir trayectorias del neurodesarrollo, intensificar la inestabilidad emocional y aumentar la exposición a experiencias adversas en la infancia, factores que pueden influir en la salud mental materna a largo plazo.

Objetivo: El objetivo principal de esta revisión sistemática fue evaluar el impacto del embarazo adolescente en el desarrollo psicológico materno y en el inicio o empeoramiento de los trastornos mentales. Los objetivos secundarios incluyeron analizar asociaciones con depresión, ansiedad, síntomas relacionados con el trauma, estrés parental y desenlaces psiquiátricos a largo plazo.

Métodos: Se realizó una búsqueda sistemática en PubMed, Scopus, Web of Science, Cochrane Library, LILACS, ClinicalTrials.gov y ICTRP. Los estudios elegibles incluyeron investigaciones observacionales o de intervención que evaluaran resultados de salud mental en adolescentes embarazadas o madres adolescentes. Los criterios de inclusión comprendieron estudios publicados en los últimos cinco años, ampliándose a diez años si se identificaban menos de diez artículos elegibles. Se priorizaron estudios en humanos; los estudios en animales y in vitro se consideraron solo para aclaraciones mecanicistas. La extracción de datos siguió las directrices PRISMA, y el riesgo de sesgo se evaluó mediante RoB 2, ROBINS-I y QUADAS-2, con la certeza de la evidencia valorada mediante GRADE.

Resultados y Discusión: Se incluyeron 18 estudios en la revisión final. La evidencia mostró de forma consistente mayores tasas de síntomas depresivos, trastornos de ansiedad, exposición al trauma, alteraciones en la regulación emocional y estrés psicosocial intergeneracional entre madres adolescentes. La inmadurez del neurodesarrollo, la adversidad socioeconómica y el acceso limitado a servicios de apoyo fueron mediadores recurrentes entre los estudios.

Conclusión: El embarazo adolescente está fuertemente asociado con una mayor vulnerabilidad a trastornos mentales y con alteraciones en el desarrollo psicológico. Los hallazgos resaltan la necesidad de cribado integrado, intervenciones psicosociales específicas y estrategias multidisciplinarias de seguimiento. Mejorar el apoyo a la salud mental durante el embarazo y el posparto puede mitigar las consecuencias psiquiátricas a largo plazo en esta población de alto riesgo.

Palabras clave: Embarazo en la Adolescencia. Trastornos Mentales. Salud Materna. Desarrollo Psicológico.



1 INTRODUCTION

Adolescent pregnancy represents a major global health concern due to its complex and multidimensional psychological implications¹. Early childbearing occurs during a developmental stage characterized by ongoing cognitive, emotional, and social maturation¹. This overlap of normative adolescent development with the demands of pregnancy generates a unique vulnerability to mental health disorders¹. The psychosocial environment of adolescents frequently includes unstable relationships, limited autonomy, and reduced access to supportive networks². These contextual stressors may exacerbate emotional dysregulation during pregnancy and postpartum². Such dynamics contribute to heightened rates of depressive and anxiety symptoms among adolescent mothers².

Neurobiological immaturity is another determinant that increases susceptibility to adverse psychological outcomes in adolescent pregnancy³. During adolescence, the prefrontal cortex undergoes substantial remodeling essential for executive regulation and behavioral control³. Pregnancy adds an additional layer of hormonal and emotional burden, intensifying the reactivity of limbic systems involved in stress responses³. Adolescents exposed to chronic stressors may develop maladaptive coping strategies that persist into motherhood⁴. These patterns may impair the ability to provide sensitive caregiving⁴. Reduced psychological resources may also hinder effective adaptation to maternal responsibilities⁴.

Socioeconomic disadvantage remains a central factor mediating the relationship between adolescent pregnancy and mental health⁵. Many pregnant adolescents live in environments affected by poverty, low educational attainment, and community violence⁵. These conditions increase exposure to chronic stress, reduce resilience, and heighten vulnerability to psychiatric morbidity⁵. Limited access to health services further compromises timely identification and management of emotional distress⁶. Barriers in healthcare engagement may result in untreated depression and anxiety during the perinatal period⁶. Consequently, adolescent mothers may experience persistent psychological impairment across the reproductive cycle⁶.

Family dynamics and interpersonal relationships play critical roles in shaping the mental health trajectory of adolescent mothers⁷. Conflicted relationships with parents or partners may intensify emotional instability during pregnancy⁷. Lack of instrumental or emotional support has been consistently associated with postnatal depression and anxiety in this population⁷. High rates of intimate partner violence further compound psychological vulnerability⁸. Exposure to violence is strongly linked to trauma-related symptoms and impaired maternal functioning⁸. These factors may perpetuate long-term psychological harm extending beyond the perinatal period⁸.

Adverse childhood experiences are disproportionately prevalent among adolescents who become pregnant⁹. Histories of abuse, neglect, or household dysfunction are known predictors of early pregnancy and subsequent mental health disorders⁹. The combination of past trauma and new maternal responsibilities may overwhelm coping resources⁹. Trauma-related symptoms may interfere with the formation of secure maternal-infant attachment¹⁰. This disruption may contribute to intergenerational transmission of psychosocial vulnerability¹⁰. Infants of adolescent mothers may therefore face increased developmental risks linked to maternal psychological distress¹⁰.

Cultural and social norms significantly influence the psychological experience of adolescent pregnancy¹¹. In some contexts, early childbearing may be socially accepted, whereas in others it is strongly stigmatized¹¹. Stigma contributes to isolation, reduced self-esteem, and elevated psychological distress¹¹. Stigmatized adolescents may delay seeking prenatal and mental health care¹². Delayed care increases the risk of complications, including untreated psychiatric conditions¹². This reinforces cycles of neglect and emotional suffering throughout pregnancy¹².

Educational disruption is another significant consequence of adolescent pregnancy with lasting psychological effects¹³. Many adolescent mothers discontinue schooling due to stigma, financial barriers, or lack of childcare support¹³. Educational interruption diminishes future economic prospects and intensifies long-term stress exposure¹³. Loss of academic identity may also impair self-efficacy and emotional well-being¹⁴. Reduced educational opportunity may heighten feelings of inadequacy and hopelessness¹⁴. These psychological consequences may persist well into adulthood¹⁴.

Parenting during adolescence requires psychological resources that may exceed developmental capacity¹⁵. Adolescents may struggle with emotional regulation and problem-solving while simultaneously adjusting to maternal responsibilities¹⁵. Such demands may contribute to chronic stress and impaired maternal-infant bonding¹⁵. Lack of parenting skills is frequently associated with elevated parental stress and depressive symptoms¹⁶. Over time, these difficulties may interfere with sensitive caregiving¹⁶. Ineffective maternal interactions may subsequently influence infant socioemotional outcomes¹⁶.

Public health implications of adolescent pregnancy extend beyond individual psychological outcomes, affecting families, communities, and healthcare systems¹⁷. High rates of untreated mental disorders among adolescent mothers increase demands on social and clinical services¹⁷. These burdens highlight the need for comprehensive and multidisciplinary interventions targeting mental health, education, and social support¹⁷. Existing policies often fail to adequately address the psychosocial dimensions of adolescent

pregnancy¹⁸. Persistent gaps in service delivery limit the effectiveness of prevention and early-intervention strategies¹⁸. A systematic synthesis of contemporary evidence is therefore essential to guide clinical and policy frameworks¹⁸.

2 OBJECTIVES

The main objective of this systematic review was to examine how adolescent pregnancy influences maternal psychological development and the risk of mental disorders throughout pregnancy and the postpartum period. Secondary objectives included identifying the prevalence and severity of depression among adolescent mothers; evaluating the occurrence of anxiety symptoms and related psychosocial stressors; assessing the impact of trauma exposure and adverse childhood experiences on mental health outcomes within this population; examining patterns of parenting stress and the implications for maternal-infant interaction; and determining long-term psychiatric consequences associated with early childbearing. Together, these objectives aimed to provide an integrated understanding of the psychological vulnerabilities that accompany adolescent pregnancy and to inform evidence-based clinical and public health strategies.

3 METHODOLOGY

A comprehensive and structured search strategy was designed to identify studies evaluating psychological development and mental health outcomes in pregnant adolescents and adolescent mothers. Searches were conducted in PubMed, Scopus, Web of Science, Cochrane Library, LILACS, ClinicalTrials.gov, and the International Clinical Trials Registry Platform (ICTRP). Search terms combined controlled vocabulary and free-text terms related to adolescent pregnancy, maternal mental health, psychological development, depression, anxiety, trauma, and psychiatric outcomes. The search was updated to include all available studies published within the last five years, with a planned extension to ten years only if fewer than ten eligible studies were identified.

Studies were included if they investigated human participants who were pregnant adolescents or adolescent mothers and reported at least one psychological or psychiatric outcome. Observational, interventional, and mixed-methods studies were eligible for inclusion. Exclusion criteria comprised editorials, letters, commentaries, narrative reviews, and studies lacking extractable mental health data. When fewer than ten studies met the five-year criterion, older studies up to ten years were considered, but clearly flagged within the synthesis. Animal and in vitro studies were not included in pooled analysis but were reviewed narratively when relevant for mechanistic insights. No language restrictions were applied.

Study selection followed a two-stage process involving independent screening by two reviewers. Titles and abstracts were first assessed for relevance, followed by full-text evaluation to confirm eligibility. Discrepancies were resolved by consensus or consultation with a third reviewer. Reasons for exclusion were documented in accordance with PRISMA guidelines. Data extraction was performed using a standardized form collecting information on authorship, publication year, study design, population characteristics, mental health outcomes, measurement tools, key findings, and limitations. Duplicate records were identified and removed using automated and manual procedures.

Risk of bias was assessed independently by two reviewers using validated tools according to study design. Randomized trials were evaluated with the RoB 2 tool, observational studies with ROBINS-I, and diagnostic or screening accuracy studies with QUADAS-2. Any disagreements were resolved through discussion. Certainty of evidence was rated using the GRADE approach, considering study limitations, inconsistency, indirectness, imprecision, and publication bias. Evidence profiles were generated to support the interpretation of findings and guide strength-of-recommendation statements.

The methodological approach was justified by the need to synthesize recent and high-quality evidence addressing the psychological consequences of adolescent pregnancy. This review adhered to PRISMA recommendations to ensure transparency, reproducibility, and comprehensive reporting. The protocol established clear eligibility criteria, a robust search strategy, rigorous bias assessment, and structured data synthesis to produce a clinically meaningful and methodologically consistent evaluation of the literature.

4 RESULTS

The initial search across all databases yielded a total of 742 records. After removal of duplicates and title–abstract screening, 62 full-text articles were assessed for eligibility. Of these, 44 were excluded for not meeting the predefined criteria due to lack of specific mental health outcomes, inadequate age stratification, insufficient methodological clarity, or absence of data extractable for synthesis. A total of 18 studies fulfilled all inclusion criteria and were incorporated into the final review. These studies included observational cohorts, cross-sectional analyses, mixed-methods investigations, interventional designs, and two recent evidence syntheses.

Across the included studies, sample sizes varied widely, ranging from single-site analyses of fewer than 100 adolescent mothers to multinational cohorts exceeding 10,000 participants. Most studies originated from low- and middle-income countries, particularly in Sub-Saharan Africa and Latin America, where adolescent pregnancy rates are highest.

Several studies evaluated both antenatal and postpartum adolescents, while others focused exclusively on the postpartum period. Depression and anxiety emerged as the most frequently assessed mental health outcomes, followed by trauma-related disorders, parenting stress, emotional dysregulation, and risk of suicidal behaviors. Only one study evaluated the effect of a structured psychosocial intervention, demonstrating feasibility but limited generalizability.

Table 1 synthesizes the characteristics and principal findings of all included studies. Overall, evidence consistently indicated higher rates of mental health disorders among adolescent mothers compared to adult mothers or nulligravid adolescents. The majority of studies also identified socioeconomic adversity, exposure to violence, low social support, educational disruption, and prior trauma as key determinants of adverse psychological outcomes. Despite notable heterogeneity in outcome measures and methodological quality, the directionality of associations showed a high degree of consistency. Collectively, these findings underscore the substantial psychological burden faced by adolescent mothers and highlight the necessity for targeted mental health screening and intervention strategies.

Table 1

Reference	Population / Intervention / Comparison	Outcomes	Main conclusions
Mutahi J et al., 2022	Pregnant adolescents and young women (12–24 years) in Sub-Saharan Africa	Depression, anxiety, PTSD, ideation	High prevalence of depression and suicidal anxiety; structural vulnerability and poverty increase psychological risk.
Yakubovich AR et al., 2022	Adolescent mothers in low-income settings	Intimate partner violence, mental health	Violence strongly associated with depressive and anxiety symptoms; psychological impairment linked to partner aggression.
Barkin JL et al., 2022	US adolescent mothers in cohort study	Maternal functioning, depressive symptoms	Adolescent mothers show poorer maternal functioning and higher depression risk than adults.
Kalenga M et al., 2022	Pregnant adolescents attending antenatal clinics	PTSD symptoms, trauma exposure	High trauma burden; PTSD symptoms prevalent and largely untreated.
Hlelela M et al., 2023	Adolescents versus adult mothers	Parenting stress, depression	Adolescents exhibit significantly higher parenting stress and depressive symptomatology.



Reference	Population / Intervention / Comparison	Outcomes	Main conclusions
Rocha TS et al., 2023	Brazilian adolescent mothers	Postpartum depression	Postpartum depression prevalence 42 percent; low social support strongest predictor.
Pinto V et al., 2023	Adolescent mothers in community health program	Anxiety, social vulnerability	Anxiety prevalence 37 percent; school interruption and socioeconomic hardship predict worse mental health.
Nyagah W et al., 2023	Pregnant adolescents in East Africa	Antenatal depression	29 percent antenatal depression; associated with stigma, food insecurity, and limited family support.
Miafo JD et al., 2024	Adolescent mothers	Mental disorders, suicidal risk	66.4 percent have a mental disorder; 27.4 percent present suicidal risk.
Rahim KA et al., 2024	Global meta-analysis of adolescent pregnancy outcomes	Depression, anxiety, suicidality	Adolescent pregnancy associated with increased risk of depression; evidence for anxiety heterogeneous.
Steiner RJ et al., 2024	US adolescent mothers longitudinal analysis	Emotional health, developmental risk	Elevated emotional dysregulation and higher risk for later psychiatric disorders.
Hernández-Márquez C et al., 2024	Mexican adolescent mothers	Trauma, depression	Trauma history strongly correlated with postpartum depressive symptoms.
Carvalho AF et al., 2025	Brazilian adolescent mothers	Depression, anxiety, access to care	Very high rates of untreated depression and anxiety; most adolescents not receiving psychological support.
Mwita M et al., 2025	Pregnant adolescents	Comorbid anxiety and depression	16 percent present comorbid symptoms; higher symptom severity than in adult pregnant populations.
Lesinskienė S et al., 2025	Adolescents aged 10–19	Depression, anxiety, suicidality	High distress levels; frequent substance use; significant rates of suicidal ideation.
Yousefi S et al., 2025	Psychosocial intervention in pregnant adolescents	Depression, stress, anxiety	Intervention feasible; preliminary improvement in depressive symptoms, but limited sample size.
Rugigana E et al., 2025	Adolescents in postpartum follow-up	Parenting stress, emotional wellbeing	Persistent parenting stress associated with depressive symptoms and emotional instability.



Reference	Population / Intervention / Comparison	Outcomes	Main conclusions
Chikodili CA et al., 2025	Adolescent mothers in primary care	Maternal functioning, mental health	Functional impairment strongly related to depressive symptom severity; ongoing distress beyond early postpartum.

5 RESULTS AND DISCUSSION

Adolescent pregnancy demonstrated a consistent association with increased rates of depression, anxiety, and trauma-related symptoms across all included studies¹⁹. Observational cohorts from multiple regions reported significantly higher depressive symptomatology among adolescent mothers compared to adults¹⁹. This pattern was most prominent in settings marked by poverty, limited social support, and early exposure to violence¹⁹. These findings highlight how structural vulnerability amplifies the psychological burden of adolescent pregnancy²⁰. Studies conducted in Sub-Saharan Africa and Latin America emphasized that economic hardship and community violence strongly predict mental distress²⁰. Together, these socioeconomic determinants form a recurrent pathway linking adolescent pregnancy with adverse mental health outcomes²⁰.

Rates of depression were notably elevated, with several studies reporting prevalence above 40 percent in postpartum adolescents²¹. In Brazilian and Mexican cohorts, postpartum depression was strongly influenced by low social support and histories of trauma²¹. These predictors remained significant even after adjusting for confounding variables such as income, education, and obstetric complications²¹. Anxiety symptoms were also highly prevalent in adolescent mothers, with frequencies ranging from 30 to 60 percent depending on the setting²². Reports from community-based programs indicated that school interruption and unstable home environments exacerbated anxiety²². Such findings reinforce the relevance of contextual stressors in shaping psychological vulnerability among adolescent mothers²².

Trauma exposure and PTSD symptoms were particularly prominent in regions experiencing high rates of interpersonal violence²³. Studies evaluating African and Latin American adolescents showed that trauma history significantly increased the risk of postpartum mental disorders²³. The presence of untreated PTSD symptoms predicted difficulties in maternal-infant bonding and emotional regulation²³. The burden of trauma also intersected with intimate partner violence, which emerged as a key factor worsening psychiatric symptoms²⁴. Adolescent mothers experiencing partner aggression reported

profound emotional distress and impaired maternal functioning²⁴. These findings underline the need for targeted screening of trauma and violence during antenatal and postnatal care²⁴.

Suicidal ideation was consistently identified among the most severe outcomes in adolescent mothers²⁵. One multicenter study found suicidal risk present in more than one-quarter of adolescent mothers²⁵. This alarming finding demonstrates the extent of psychiatric vulnerability in this age group²⁵. Emotional dysregulation and long-term psychiatric risk were also noted in longitudinal cohorts of US adolescents²⁶. These patterns suggest that adolescent pregnancy may initiate or intensify lifetime trajectories of mental illness²⁶. Early identification of high-risk individuals could therefore play a crucial preventive role²⁶.

Parenting stress emerged as a universal concern across studies assessing the postpartum period²⁷. Adolescents consistently displayed higher levels of stress related to caregiving demands when compared to adults²⁷. These elevated stress levels correlated with depressive symptoms and impaired maternal functioning²⁷. Studies also observed that persistent stress contributed to emotional instability well into the postpartum follow-up²⁸. Parenting stress was closely linked to limited social support, highlighting the importance of family engagement during maternal transition²⁸. Such findings reinforce the necessity of structured psychosocial interventions targeting young mothers²⁸.

Socioeconomic adversity was a dominant factor influencing mental health in nearly all included studies²⁹. Adolescents living in poverty exhibited higher rates of emotional distress and reduced access to mental health care²⁹. Food insecurity, housing instability, and educational disruption consistently predicted worse psychological outcomes²⁹. Studies from African and Latin American regions demonstrated that structural inequality exacerbated both antenatal and postpartum mental disorders³⁰. Adolescents with interrupted schooling showed significantly higher depression and anxiety scores³⁰. These findings indicate that mental health interventions must be integrated with social and educational support initiatives³⁰.

The only interventional study identified reported preliminary improvement in depressive symptoms following a psychosocial support program³¹. Participants demonstrated reductions in perceived stress and emotional distress after intervention exposure³¹. However, the small sample size limited the generalizability of these findings³¹. Despite these limitations, the study supports the potential benefit of structured psychosocial care for pregnant adolescents³². Multidisciplinary programs that combine psychological, educational, and social support may yield broader improvements³². Further large-scale trials are needed to confirm these preliminary results³².

Meta-analytic evidence corroborated the association between adolescent pregnancy and elevated risk of depression³³. Pooled data revealed significantly higher depressive

symptomatology among adolescent mothers compared to adults³³. However, results for anxiety and suicidal ideation were heterogeneous due to methodological differences³³. This heterogeneity underscores the variability in measurement tools and population characteristics across studies³⁴. Cross-sectional designs and non-standardized questionnaires contributed to inconsistencies³⁴. Improving methodological rigor is essential to enhance comparability between future studies³⁴.

The studies consistently demonstrated that adolescent pregnancy amplifies preexisting vulnerabilities, including trauma history, low socioeconomic status, and limited educational attainment³⁵. These vulnerabilities interact with biological immaturity and emotional instability to heighten psychiatric risk³⁵. The cumulative burden of these factors contributes to chronic mental health challenges extending beyond the postpartum period³⁵. Evidence also suggests an intergenerational effect, with maternal distress influencing infant development³⁶. Infants born to adolescent mothers exposed to severe psychological stress may face increased developmental and emotional risks³⁶. This highlights the importance of early intervention not only for mothers but also for child developmental outcomes³⁶.

Lack of access to mental health services was a recurrent challenge reported across diverse settings³⁷. Many adolescents with clinically significant symptoms did not receive timely psychological support³⁷. Barriers included low health literacy, stigma, and inadequate availability of adolescent-focused services³⁷. Addressing these gaps is critical for reducing the long-term psychiatric burden associated with adolescent pregnancy³⁸. Evidence from multiple regions calls for integrating mental health screening into routine antenatal care³⁸. Such integration could facilitate early detection and reduce adverse outcomes³⁸.

The synthesis of findings across the 18 included studies demonstrates a high degree of consistency despite geographic and methodological variation³⁹. Depression, anxiety, trauma exposure, and parenting stress were the most common psychological consequences³⁹. These outcomes were strongly shaped by structural and interpersonal determinants³⁹. The overall certainty of evidence ranged from moderate to high for depression, and low to moderate for anxiety and trauma-related outcomes⁴⁰. Heterogeneity in measurement tools and study design contributed to variations in certainty⁴⁰. Nonetheless, the direction of effects remained stable across contexts⁴⁰.

6 CONCLUSION

The findings of this systematic review demonstrate that adolescent pregnancy is consistently associated with an elevated risk of depressive symptoms, anxiety disorders, trauma-related manifestations, parenting stress, and impaired emotional regulation. Across

diverse geographic and socioeconomic contexts, adolescent mothers exhibited poorer psychological outcomes when compared to adult mothers, and multiple studies identified overlapping determinants such as poverty, violence exposure, and insufficient social support. Collectively, these results reveal that adolescent pregnancy often unfolds within a context of cumulative psychosocial vulnerability and leads to significant short- and long-term mental health consequences.

From a clinical perspective, the evidence highlights the need for early and systematic mental health screening among pregnant adolescents and adolescent mothers. Increased vigilance during prenatal and postpartum care may allow for timely identification of high-risk individuals, improving early access to psychological support. Integrating mental health evaluation into routine maternal care could help prevent the progression of emotional distress into more severe psychiatric disorders, ultimately enhancing both maternal wellbeing and developmental outcomes for infants.

Despite the consistency of findings, the available literature presents notable limitations. Many studies employed cross-sectional designs, limiting causal inference, and used heterogeneous measurement tools that reduce comparability across samples. Sample sizes varied widely, and few high-quality interventional studies were available, resulting in restricted evidence regarding effective therapeutic strategies. In addition, the scarcity of longitudinal data limits understanding of long-term psychiatric trajectories among adolescent mothers.

Future research should prioritize large, well-designed longitudinal studies capable of capturing developmental changes in psychological functioning across pregnancy and the postpartum period. Interventional trials with standardized outcome measures are needed to determine the most effective approaches for mitigating mental health risks among adolescent mothers. Studies integrating biological, psychological, and social determinants may also help clarify mechanistic pathways and refine targeted interventions.

In summary, adolescent pregnancy carries significant implications for maternal psychological development and risk of mental disorders, emphasizing the importance of comprehensive, evidence-based, and multidisciplinary strategies. Early identification, tailored psychosocial support, and coordinated care approaches are essential to reduce the psychiatric burden on adolescent mothers and support healthier trajectories for both mother and child. Strengthening policies, clinical frameworks, and community programs dedicated to this vulnerable population remains an urgent priority for public health.



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