

Depression and anxiety in pregnant adolescents

Abstract

Objective: To study depression and anxiety in pregnant adolescents.

Methods: This research is a cross-sectional study in which the Hospital Anxiety and Depression Scale (HADS) was used to evaluate the level of anxiety and depression among patients. The Beck Depression Inventory (BDI), which aims to measure the presence and severity of depression among patients, was also applied. For purposes of analysis, the participants were divided into two groups: precocious adolescents (12 to 15 years of age) and late adolescents (16 to 19 years of age). The difference between the means observed between the groups was analyzed using Student's t test. A value of $p < 0.05$ was considered significant.

Results: The mean BDI score among the 26 precocious adolescents was 24.0, whereas among the 61 late adolescents, the same score presented a mean of 15.7 ($p=0.005$). In relation to depression, according to the HADS, the precocious pregnant adolescents obtained an average of 8.8 (possible depression), whereas the late pregnant adolescents presented an average of 6.9 (unlikely depression) ($p=0.005$).

Conclusion: Depression was more intense among precocious adolescents than among late adolescents. There was no significant difference in the intensity of anxiety, assessed by the HADS, between precocious and late adolescents.

Keywords: adolescence, pregnancy, depression, anxiety, significant, precocious, adolescents, significant

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Introduction

Adolescence is the transition phase between childhood and adulthood, characterized by physical and psychosocial transformations. In this phase, young people undergo changes in body image, values, and lifestyle, moving away from the standards established by their parents and creating their own identity.¹ Although there has been a drop in fertility throughout Brazil, the situation of teenage pregnancy is worrisome. According to data from the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística-IBGE) and the Institute of Economic and Applied Research (Instituto de Pesquisa Econômica e Aplicada-IPEA), the teenage fertility rate in 2006 increased by 0.14 in the lowest economic classes. In 2007, the total number of births observed by the Unified Health System (Sistema Único de Saúde-SUS) in the 15-19 age groups was 23%.²

Numerous causes may be involved in the occurrence of adolescent pregnancy, particularly unwanted or unplanned pregnancies. Among these, we highlight clinical, social, cultural, and emotional factors. Consequently, there are also changes in the life project of the adolescent, limiting or delaying the possibility of engagement of these young people in society.³ Pregnancy in adolescents is associated with low prenatal adherence, which may lead to a higher prevalence of low newborn birth weight and preterm delivery and increase the need for psychosocial support caused by pregnancy stress in this phase of life.³ Even in studies that problematize the negativity of pregnancy in adolescence, there are indications that the phenomenon, in some contexts, may constitute a factor of development protection. For some adolescents in situations of great social vulnerability, for example, the child may represent renewed perspectives for the present and for the future, which may be a personal protective factor for the adolescent mother.⁴

Depression is a public health problem that generates high costs, but it is treated with disregard by public health policy authorities. It is highly prevalent, being the most common mental disorder in primary care services, with a prevalence of 10% to 20%, and it can affect any age group. It is a disabling disease that compromises physical health and limits the activities of the affected individuals.⁵ In depression, according to the diagnostic criteria of the major depressive episode by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), there must be a presence of depressive mood or a loss of interest or pleasure for at least two weeks, in addition to other related symptoms, such as psychomotor and sleep disturbances, a reduction in concentration, a change in body weight, and loss of energy.⁵

The pregnancy-postpartum period is the phase with the most frequent mental disorders in women, particularly in the first and third trimesters of gestation and in the first 30 days postpartum, with depression being the most frequent disorder.⁶ The prevalence of gestational depression is approximately 15% among developed countries and approximately 22% in developing countries. It is associated with a previous history of psychiatric disorder, sociodemographic characteristics (low income), single or separated marital status, unplanned pregnancy, teenage pregnancy, obstetric complications, smoking, alcoholism, stressful events (e.g., theft and robbery), and an absence of social support.⁶ When untreated, depression during pregnancy increases the risk of using tobacco, alcohol, and other drugs and the risk of malnutrition and difficulties in following prenatal medical instructions, including reducing the frequency of consultations, which has been associated with the risk of neonatal mortality.⁷

Anxiety is a psychological and physiological state that is part of the normal spectrum of human experiences. Anxiety disorders are among the most common disorders in the general population. Anxiety is considered an emotional state, with the subjective experience of fear

or other related emotions, such as terror, horror, a state of alarm, and panic. It is directed toward the future. It may present with sensations of tightness in the chest or in the throat, difficulty breathing, and weakness in the legs.⁸ Anxiety in adolescence is related to deep transformations experienced that provoke a feeling of restlessness and self-estrangement. It is a frequent symptom in this stage of life and a warning signal in the face of a potentially threatening situation. Teenagers feel threatened due to the large number of changes that occur in their body; they feel threatened in relation to their parents, with constant conflicts of dependency/autonomy; and there is fear concerning their social and school life. These adolescents may have a risk behavior, consume alcohol and drugs, or engage in impulsive sexual behavior in an attempt to deny their fears.⁹ Sabroza et al. investigated 1228 mothers aged 12 to 19 years in the municipality of Rio de Janeiro and found a prevalence of 26.8% for intense psychological distress.¹⁰ Investigating psychological disorders in 120 pregnant adolescents aged 14 to 18 years in Piracicaba (SP), Freitas and Botega identified a prevalence of 23.3% for anxiety and 20.8% for depression.¹¹ The low number of studies on depression and anxiety in pregnant adolescents, particularly in the northeast region of Brazil, motivates the present study, whose objective is to study the presence and intensity of depression and anxiety in pregnant adolescents and to compare depression and anxiety between precocious adolescents and late adolescents.

Methods

This research was an observational, cross-sectional, and analytical study performed at the Marly Sarney Maternity Prenatal Outpatient Clinic in São Luís-MA-Brazil. Considering an estimated prevalence of 6% of depression in women, a 95% confidence level, and a maximal sampling error of 5%, the sample size was 87 participants. Included in the study were pregnant adolescents in the age group up to 19 years of age who were seen at the Marly Sarney Maternity Prenatal Outpatient Clinic. For purposes of analysis, the participants were divided into two groups: precocious adolescents (12 to 15 years old) and late adolescents (16 to 19 years old). The study did not include adolescents with cognitive problems or without the ability to respond to the questionnaire. The patients were approached in the waiting room of the outpatient clinic of the Marly Sarney Maternity Hospital and then invited to participate in the research. After being informed concerning all aspects of the research, the patients who wished to participate signed the Free and Informed Consent Form. A questionnaire was applied, and the questions asked in the interview involved aspects related to the meaning of mental health, the perception of one's own mental health, the meaning of violence, the self-perception of violence, and the notion of self-harm. The Hospital Anxiety and Depression Scale (HADS) was used to assess the level of anxiety and depression among the patients.^{12,13} The score of this instrument ranges from 0 to 21 points (0-7 unlikely, 8-11 possible, 12-21 likely). The Beck Depression Inventory (BDI),¹⁴ whose purpose is to measure the presence and severity of depression among patients, was also used. Its result ranges from 0 to 63 points, and the higher the score is, the worse the depression (0-13 minimum, 14-19 mild, 20-28 moderate, 29-63 severe). The data were organized and analyzed using the Stata 12.0® (StataCorp, College Station, TX, USA) statistical software. The quantitative variables are presented as means and standard deviations, and the qualitative variables are presented as percentages. The difference between the means observed between the groups was analyzed using Student's t test. A value of $p < 0.05$ was considered significant.

This project was submitted and approved by the Research Ethics Committee of the University Center of Maranhao (Universidade CEUMA; CAAE 34400714.0.0000.5084). All participants were informed of the objective of the research and signed the Free and Informed Consent Form (Termo de Consentimento Livre e Esclarecido-TCLE) drafted in accordance with the recommendations of Resolution 466/12.

Results

The study population was composed of 87 pregnant adolescents with a mean age of 16.09 years (12-19 years old); it was divided into two groups: precocious adolescents (12-15 years old) and late adolescents (16-19 years old). The percentage of precocious adolescents in this study was 29.9% (n=26), whereas the proportion of late adolescents was 70.1% (n=61) (Table 1).

Table 1 Proportion of precocious adolescents and late adolescents among pregnant adolescents in São Luís, 2016 (n = 87)

Pregnant adolescents	n	%
	87	100.00%
Precocious adolescents	26	29.90%
Late adolescents	61	70.10%

The mean BDI score among the 26 precocious adolescents was 24.0 (moderate depression), whereas among the 61 late adolescents, the same score presented an average of 15.7 (mild depression) ($p=0.005$). In relation to depression, according to the HADS, the precocious pregnant adolescents had a mean of 8.8 (possible depression), whereas the late pregnant adolescents presented a mean of 6.9 (unlikely depression) ($p=0.005$). The results for the depression scores measured by the two scales are shown in Table 2. Analyzing the mean scores for anxiety among pregnant adolescents using the HADS, a mean of 11.2 was found among precocious adolescents and 10.4 among late adolescents. Both age groups were classified as presenting possible anxiety, and there was no significant difference between them ($p=0.372$) (Table 3).

Table 2 Depression between pregnant precocious adolescents and late adolescents in São Luís, verified using the Beck Depression Inventory (BDI) and the Hospital Anxiety and Depression Scale (HADS), 2016 (n = 87)

	N	BDI*	HADS**
Precocious adolescents	26	24	8.8
Late adolescents	61	15.7	6.9
p		0.005	0.005

*Mean for depression scores using the BDI

**Mean of depression scores using the HADS

Table 3 Anxiety between pregnant precocious adolescents and late adolescents in São Luís, verified through the Hospital Anxiety and Depression Scale, 2016 (n = 87)

Pregnant Teens	N	HADS*
Precocious adolescents	26	11.2
Late adolescents	61	10.4

*Mean of anxiety scores using the HADS

Discussion

Pregnancy is an important risk factor for the development of depression and anxiety, particularly if it occurs in the teenage years. In the present study, the analyzed population was composed of 87 pregnant adolescents, and the proportion of late adolescents was higher than that of precocious adolescents. It is worth noting the scarcity of studies that associate precocious and late pregnant adolescents with depression and anxiety. Comparing depression with the results obtained in the BDI and the HADS, a significant difference is observed in both scores, with depression being more present in the precocious adolescents than in the late adolescents in both questionnaires. In a study conducted in Rio de Janeiro, it was observed that the frequency of depression tends to be higher among pregnant adolescents than in adult pregnant women, with depression being a frequent mental disorder in adolescence and an important risk factor for its development in this phase of life. This study also found that among the risk factors frequently associated with depression during the pregnancy period, psychiatric antecedents, particularly a previous history of depression, stand out.³

In a study with pregnant adolescents using the BDI, Baseggio¹⁵ found that 62.5% of the patients were at a minimum level of depression and 37.5% at a mild level. These results indicate a 100% prevalence of depression symptoms in minimal and mild degrees, with no evidence of moderate or severe depression. This result is similar to that for the late adolescents (16-19 years) in the present study because they also show mild depression when evaluated by the BDI. Analyzing the mean scores of the anxiety scores among pregnant adolescents using the HADS, it is observed that both precocious adolescents and late adolescents are classified with a degree of possible anxiety and that there is no significant difference between them. Many authors consider anxiety to be a symptom that is common to all pregnancies. Analyzing 120 pregnant adolescents from 14 to 18 years old using the HADS, among other instruments, to assess anxiety, Freitas & Botega¹¹ found a result similar to that of the present study. The presence of anxiety in these adolescents did not present a significant difference between the groups of the three gestational trimesters, and this symptom was found in 23.3% of the pregnant adolescents. In a study of 110 adolescents between 10 and 19 years of age, Pereira & Lovisi⁶ used, among other instruments, the Composite International Diagnostic Interview (CIDI, version 2.1), which evaluates depression through a structured diagnostic interview. The prevalence of depression in this study was 14.2%, lower than the rates found in other studies. This difference can be explained by the different instruments used in the evaluation of the disorder. For example, the BDI and the HADS may find a higher prevalence, which can be explained by the high frequency of depressive symptoms in the general population. A study conducted by Fontoura & Pergher¹⁶ used a population of 30 adolescents between the ages of 13 and 18, of whom 15 were teenage mothers, and reported that teenage mothers had higher rates of depression and anxiety than adolescents without children. This study also reported that the risks of the onset of depression and anxiety symptoms increase during pregnancy and that the situation becomes more critical after childbirth. A study conducted in Juiz de Fora considered the differentiation of pregnancy in adolescence into two age groups to be relevant for analyzing the incidence of some risk factors such as mortality, low birth weight, and prematurity in two groups of adolescents (10-14 and 15-19 years of age). This study demonstrated that the incidence of these risk factors is higher in adolescent mothers 10-14 years of age.¹⁷ Similarly, in the present study, precocious adolescents are more likely to develop disorders such as depression and anxiety.

Conclusion

The results found in this study allow us to conclude that, in the study population:

- a) Depression is more intense among precocious adolescents than among late adolescents, according to both the BDI and the HADS; and
- b) There is no significant difference in the intensity of anxiety, assessed by the HADS, between precocious adolescents and late adolescents.

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None.

Conflicts of interest

Authors declare that there is no conflict of interest.

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