ASSOCIATION BETWEEN RISK INDICATORS FOR CHILD DEVELOPMENT AND MATERNAL EMOTIONAL STATE

Associação entre indicadores de risco ao desenvolvimento infantil e estado emocional materno

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ABSTRACT

Purpose: to analyze the association between depression and anxiety maternal emotional states, whether combined or isolated and its relation with child development risk in children with zero to four month old. **Method**: this is an observational, analytic and a cohort research. We utilized the Beck Depression and Anxiety Inventories and Child Development Index Risks Inventory for data collection with 182 pairs of mother-child as for their interaction. **Results:** the percentage of babies with at least one development risk and maternal and maternal anxiety emotional states when combined (34,2%; p<0,001) was significantly higher than with mothers without altered emotional states. There was a significant correlation between depression and anxiety (G= 0,83; p< 0,01e), that shows that mothers with higher degrees of depression also have anxiety states. **Conclusion:** there was association between maternal depression and anxiety and presence of risk for child development, a fact that shows the need for public health programs in order to care and to treat such pairs, when needed.

KEYWORDS: Mothers; Risk Factors; Child Development; Depression; Anxiety

INTRODUCTION

It is known that there is no baby if there is no mother[1], therefore, when assessing a child's development, especially in the first year of life, it is essential to analyze the relationship between the possibilities of the baby and the environment, especially the figures that play parental roles. Accordingly, eighteen risk factors for child development (IRDIs)[2] were built and validated from four evolution axes determined by the Lacanian psychoanalysis, namely, the assumption of a subject, the establishment of the infant's demand, the mother presence--absence alternation and the paternal function (otherness). These indexes cover the actions of the caregiver and the baby and prove to be effective in predicting the risk to child development, especially the psychological risk[3].

The transition to parenthood occurs from a variety of changes, which requires an adjustment of the parents, changes that go from the transformation of the body of women, to expectations about the new roles and around the baby, including a restructuring of marital, family and social relations[4].

Thus, still in the period before birth, parents build a picture of the future baby from an imaginarization about their temperament and behavior, which helps to establish first relations with the baby [5]. However, even if there is a wait for that child, in many cases the birth of a baby may be associated with stress in some families due to daily routine changes, especially in the postpartum period [6].

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The postpartum period is considered the most vulnerable to the onset of psychiatric disorders. Among them are postpartum dysphoria, postpartum depression, postpartum psychosis and anxiety disorders [7].

Thus, as it is a distinct period of life, it is important to know which factors can prevent or contribute to stressful events related to pregnancy and postpartum moments, so that psychosocial strategies are designed to minimize the impact of psychological / psychiatric symptomatology disorders in the mother-baby relation, including in family relationships[8].

These issues concern to the extent that the physical and psychological conditions of the mother in the pre and postpartum moments are critical factors, once the bases of child development are established during this period and are intimately depend on the mother-baby relationship[9].

It has been observed in the past twenty years that, for many women, pregnancy, the birth of a baby, and the postpartum period might cause psychoaffective problems, as it is the case of postpartum depression[10].

Symptoms such as postpartum depression and anxiety have been suggested as risk factors for child development, and they may be associated with failure to form a secure attachment in children [11]. Thus, the psychological support of the mother to her baby is very important for the formation of the self, and it is the main base for all other relationships of the baby, as well as the healthy mother-baby relationship represents safety and security for the child, which is essential for the proper development of the psychic apparatus [12].

The impact of maternal depression can affect the baby in several manners, but usually the baby reacts to maternal behavior by withdrawing interaction or by showing sadness. This happens because the baby is born with reflex behaviors that make their relationship with each other easier. However, if there is any libidinal investment commitment by the mother, early relations between mother and baby can be damaged, causing serious mental harm in the psychic establishment of the child[13].

When the depressed mother is temporarily unable to deal with issues of motherhood with difficulties to react to her baby, who is not being responded to, the baby starts to interpret the mother and to recognize on her face the characteristics of her humor, and then seeks for ways to deal with it [14] .

However, a study showed[15] that , the emotional maternal state not always results in dysfunctional interactions between mother and baby, which may indicate a resilient capacity of the mother or child. Other studies indicate that both depression and anxiety can be neutralized by family support and do not necessarily reflect the mother-baby interactions [16,17]. However, that does not mean that mothers are not suffering with anxiety[17] or depressive[15] symptoms, and they still require special care of health professionals during this period.

Another symptom present in the post-partum period is anxiety[18,19]. it is estimated that 20% of pregnant women have symptoms of anxiety [20].

This issue is troubling in that postpartum anxiety, and depression, can cause difficulties in the formation of mother-infant bond, which may cause failures in child development, but has been little discussed in scientific research [21].

Psychological factors like anxiety, can lead to complications during pregnancy and postpartum period, but also for the baby [22]. The consequences of maternal anxiety is not limited to the period after delivery, but may have long-term effects for the development of children[23].

In this sense, research on mother-child dialogue, points out that interactional failures may be linked to possible maternal emotional states and manifest itself in different maternal styles, such as maternal intrusiveness or apathy reflected in the dialogue with their children. The study found that maternal depression or anxiety can cause mothers to occupy different enunciative places in the dialogue with the child. It has been noted that anxious mothers tend to excessively occupy this place, while depressed mothers adopt a less participatory approach when playing and speaking with their children [24].

So even if the behavior of an anxious mother in interaction with the baby cannot be generalized, it is known that it is often possible that the relationship between them is broken, and that can cause future problems for child development, particularly in risking language acquisition [24], besides other problems in child development [25].

Recently, two studies found that maternal emotional states such as depression and anxiety were positively associated with the presence of risk to child development, when investigating mothers and babies aged 0 to 4 months [16,17]. The continuity of this research covers the follow-up of these babies up to 18 months, with IRDI protocol analysis (Figure 1). In this work, the authors aimed to analyze the association between maternal emotional states of depression and anxiety, combined or in isolation, with the presence of risk to child development at age 0-4 months.

Names (mother and baby): _____
DN: mother: _____ **Baby:** _____
Examiner: _____

Age in months:	Indicators:
0-4 incomplete:	1. When the child cries or screams, the mother knows what they want. 2. The mother talks to the child in a style that is particularly directed to them (*mothering*). 3. The child reacts to *mothering*. 4. The mother offers the child something and waits for their reaction. 5. There is exchange of glances between the child and mother.
4-8 incomplete:	6. The child uses different signals to express their different needs. 7. The child reacts (smiles, vocalizes) when the mother or someone else is addressing to them. 8. The child actively seeks the gaze of the mother.
8 to 12 incomplete:	9. The mother realizes that some requests of the child may be a way to draw her attention. 10. During body care, the child actively seeks love and playful games with their mother. 11. Mother and child share a particular language. 12. The child stranges people they don't know. 13. The child makes jokes. 14. The child accepts semi-solid, solid and varied food.
12 to 18 months:	15. The mother alternates moments of dedication to children with other interests. 16. The child reacts well to mother's brief absences and badly to long absences. 17. The mother no longer feels the need to meet all the child requests. 18. Parents put little rules of behavior for the child.

Figure 1 – Clinical risk indicators for child development (IRDIS)

METHOD

Sample

This study is observational, analytical and cohort. In order to calculate the sample, the prevalence of depression in 15% was considered, based on the prevalence of the occurrence of maternal depression in Brazil which is 10% to 15% according to the World Health Organization [26] with margin of error of 5 percentage points and 5% level of significance. The estimated sample was 163 dyads (mother--baby) in a selected population of mothers of infants with no biological changes in the development, who sought the service of the newborn hearing screening (NHS) at the University Hospital. Considering the possibilities of future losses, this research studied 182 dyads.

Inclusion criteria were full-term and preterm infants with no biological changes such as possible syndromes, malformations or organic lesions diagnosed at birth, and who had passed the newborn hearing screening. Regarding mothers, all were included except those possessing or suspected of serious disorders such as psychosis or schizophrenia during interviews with psychologists.

Procedures

The survey was conducted at a university hospital in the central region of Rio Grande do Sul, Brazil, and the data were collected from March to June 2010. The gathering took place at the Audiology unit, where they conduct newborn hearing screening (NHS) of infants in the city and region. Babies who attend this service are usually 0 to 1 month old.

Firstly, mothers were explained the objectives and procedures of the study. After, they were invited to participate, and in order to accept, they had to sign a Free and Clarified Consent Term, and approve the creation of stock photos. After that, mothers were interviewed and the Beck Depression Inventory (BDI) [27] (Figure 2) and Beck Anxiety Inventory (BAI) [28] (Figure 3) were applied. During the interview the mothers were observed in natural interaction with babies and the first five levels of risk to child development were investigated, accordingly to the first phase of the IRDI protocol (IRDIs 1 to 5). It was later made brief footage, preserving a distance so to keep the baby from focusing the camera, to be used by a judge, not present, to judge the contents. When there was doubt or disagreement between the examiners and the judge, IRDIs were retested within a week after the first meeting. The instrument used to assess the dyad, especially the developing of babies, is summarized as it is exposed in Figure 4.

BDI is a self-report symptomatic scale, consisting of 21 items with different response alternatives as to how the subject has been feeling lately, and which correspond to different levels of severity of depression. The sum of the scores of individual items provides a total score, which in turn is a dimensional score of severity of depression, which can be classified in the following levels: minimal (0 to 11 points), mild (12-19 points), moderate (20 to 35 points) and severe (36 to 63 points). It is considered as depression from the stage described as mild.

BAI is a scale built on several self-report instruments and measures the intensity of anxiety symptoms, and consists of 21 items that are descriptive statements of anxiety symptoms and should be assessed by the subject with reference to themselves, in a 4-point scale that reflects the increasing level of each symptom, from no symptoms to severe symptoms. The total score is the result of the sum of the scores of individual items and allows the classification of the following anxiety intensity levels: minimal (0 to 10 points), mild (11-19 points), moderate (20 to 30 points) and severe (31 to 63 points). It can be considered clinically significant anxiety from the stage mild.

Mothers with depression or anxiety, after being assessed by BDI and BAI, or who showed in the interview that they needed psychological care, were invited to participate in therapeutic groups and were also nominated for individual counseling. Likewise, all babies at risk for child development were indicated for therapeutic monitoring by the research team.

This research is part of the project “Parental functions and risk for the acquisition of language: speech therapy interventions” approved by the Ethics Committee of the University Hospital, and the Department of Education and Research of the University Hospital, in their ethical and methodological aspects in accordance with the Guidelines established in Resolution 196/96 and complementary National Health Council, under the number CAEE No 0284.0.243.000-09.

Statistical Analysis

For data analysis we considered the following groups of mothers and babies: mothers without emotional disorder (BDI and BAI minimum); mothers with emotional disorder caused by depression or anxiety (BDI and BAI with mild-to-severe); mothers with emotional disorders by depression and anxiety (BDI and BAI with mild-to-severe); babies without IRDIs changed, and babies with at least one IRDI changed.

The choice of this characterization is due to the fact that there were only a few mothers with altered emotional state in our sample, and also a small number of dyads with IRDIs changed, which did not allow a detailed analysis of the levels of BDI and BAI changed or even frequency of each IRDI changed from an individual analysis of each of the first five items of the IRDI protocol (Figure 4). This analysis led to low numbers in each category, and did not allow statistical analysis of them.

For data statistical analysis we used the nonparametric association chi-squared test and the Gama non-parametric correlation coefficient, using a significance level of 5%.

Name: _____ **Age:** _____ **Marital Status:** _____

Occupation: _____ **Education:** _____

Date of application: _____ **Score:** _____

Directions

In this questionnaire there are groups of statements. Please read each one carefully. Then select the statement in each group that best describes how you felt **in the past week, including today.** Draw a circle around the number next to the selected statement. If you choose within each group several statements, circle each one. Make sure you read all the statements in each group before making your choice.

1.

0 I do not feel sad.

1 I feel sad.

2 I am sad all the time and I cannot avoid it.

3 I am so sad or unhappy that I cannot stand.

2.

0 I am not particularly discouraged in relation to the future.

1 I feel discouraged in relation to the future.

2 I have nothing to expect.

3 I feel that the future is hopeless and that things cannot improve.

3.

0 I do not feel a failure.

1 I feel I have failed more than an average person.

2 When I look at my past life, all I see is a number of failures.

3 I feel I am a complete failure.

4.

0 I have much satisfaction in things now as before.

1 I am satisfied with things as I used to be.

2 I cannot feel true satisfaction with something.

3 I am dissatisfied or bored with everything.

5.

0 I do not feel particularly guilty.

1 I feel guilty most of the time.

2 I feel quite guilty most of the time.

3 I feel guilty all the time.

6.

0 I do not feel like being punished.

1 I feel I can be punished.

2 I feel I deserve to be punished.

3 I feel I am being punished.

7.

0 I do not feel disappointed at myself .

1 I am disappointed at myself .

2 I am disgusted at myself .

3 I hate myself.

8.
0 I do not feel any worse than anyone else.
1 I criticize myself for my weaknesses or mistakes.
2 I blame myself for my failures constantly.
3 I blame myself for all the bad things that happen.
9.
0 I never had a thought of killing myself.
1 I have thoughts of killing myself, but I am not able to do it.
2 I would like to kill myself.
3 I would kill myself if I had a chance.
10.
0 I do not usually cry more than usual.
1 I cry more now than I used to.
2 Currently, I cry all the time.
3 I used to be able to cry, but now I cannot, even if I want to.
11.
0 I am no more irritated than I used to.
1 I'm bored or angry more easily than I used to.
2 Currently, I am constantly annoyed .
3 I just cannot get angry anymore with things that irritated me before.
12.
0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all my interest in other people.
13.
0 I make decisions as before.
1 I put off making decisions more than usual.
2 I have greater difficulty in making decisions than before.
3 I can no longer make any decisions.
14.
0 I do not feel that I look any worse than it used to.
1 I am concerned because I'm looking older or unattractive.
2 I note permanent changes in my appearance that make me unattractive.
3 I consider myself ugly.
15.
0 I cannot work as well as before.
1 I need an extra effort to get anything.
2 I have to force myself to do anything much.
3 I cannot do any work.
16.
0 I can sleep as well as usual.
1 I do not sleep as well as usual.
2 I wake up 1 or 2 hours earlier than usual and have trouble returning to sleep.
3 I wake up several times earlier than usual and I cannot go back to sleep.

17.
0 I am no more tired than usual.
1 I get less tired than before.
2 I get tired when doing almost anything.
3 I am too tired to do anything.
18.
0 My appetite is the same as always.
1 I do not have appetite as I used to.
2 My appetite now is much worse.
3 I have lost appetite completely.
19.
0 I have not lost much weight, if I lost any lately.
1 I lost more than 2.5 kg.
2 I have lost more than 5 kg.
3 I have lost more than 7.5 kg.
I'm purposely trying to lose weight by eating less.
Yes _____ No _____
20.
0 My health does not concern me more than usual.
1 I am worried about physical problems such as aches and pains, sick stomach, or constipation.
2 I am very concerned about physical problems and it is difficult to think of anything else.
3 I am so worried with my physical problems that cannot think of anything else.
21.
0 I have not noticed any recent changes in my interest in sex.
1 I am less interested in sex than usual.
2 I am currently much less interested in sex.
3 I completely lost interest in sex.

Total: _____
Classification: _____

Figure 2 – Beck Depression Inventory (BDI)

Name:_____
Date____/____/____

Below is a list of common symptoms of anxiety. Please read through each list item. Indicate how much you were bothered by each symptom listed on the left during the last week, including today, marking an X in the degree of disturbance corresponding to a column of cells on the right.

Nº	Symptoms	How much you were bothered			
		Nothing 0	***Weak 1***	***Moderate 2***	***Strong 3***
		It did not bother at all	***It bothered a little***	***It bothered me a lot but I could stand it***	***I almost could not stand it***
1	Numbness or tingling				
2	Hot sensation				
3	Wobbly				
4	Incapable of relaxing				
5	Fear of the worst happening				
6	Dizziness or lightheadedness				
7	Heart pounding or racing				
8	Restless				
9	Terrified				
10	Nervous				
11	Feeling of suffocation				
12	Hands trembling				
13	Trembling				
14	Fear of losing control				
15	Difficulty breathing				
16	Fear of dying				
17	Frightened				
18	Indigestion or discomfort in the abdomen				
19	Fainting				
20	Red Face				
21	Sweating (not due to heat)				
SCORE:					

Figure 3 – Beck Anxiety Inventory

Age in months:	Indicators:
0 to 4 months	1. When the child cries or screams, the mother knows what they want. 2. The mother talks to the child in a style that is particularly directed to them (*mothering*). 3. The child reacts to *motherings*. 4. The mother offers the child something and waits for their reaction. 5. There is exchange of glances between the child and the mother.

Figure 4 – Risk Indicators for Child Development (IRDIs) assessed at 0 to 4 months

RESULTS

The groups were analyzed according to their relationship with Risk Indicators for Child Development (IRDIs), in Table 1, which shows the levels of change in maternal emotional related to IRDIs.

Table 1 shows that the percentage of infants with at least one IRDI absent in the group of mothers who had some level of depression and anxiety (mild to severe) was 34.2%, which corresponds to 14 dyads, and it is significantly higher (p <0.001) than the percentage of babies with at least one IRDI absent in the group whose mothers had neither depression nor anxiety (minimum level) or had only just depression or anxiety (11.4%), which corresponded to 16 dyads.

Table 1 – Distribution of levels of maternal emotional disorder (anxiety and depression) in relation to Risk Indicators for Child Development (IRDIs)

IRDIs	Mothers	
	With emotional alteration	Without emotional alteration
None abscent (no risk)	27 (65.85%)	125 (88.65%)
At least one IRDI abscent	14 (34.15%)	16 (11.35%)
Total	41(22.52%)	141 (77.47%)

* Chi-squared Test: significant (p < 0,001)

Table 2 shows the levels of maternal emotional change when mothers have only one type of emotional disorder (anxiety or depression) at some level (mild to severe) in relation to Risk Indicators for Child Development (without risk and with at least one IRDI changed).

In Table 2 we can note that the percentage of infants with at least one IRDI absent in the group of mothers who had a level of depression or anxiety was 26.6%, which corresponds to 21 dyads, significantly higher (p <0 , 01) than the percentage of infants under one IRDI absent in the group whose mothers did not have depression or anxiety (8.7%), corresponding to 9 dyads.

Table 2 – Distribution of levels of maternal emotional disorder (anxiety or depression) in relation to Risk Indicators for Child Development (IRDIs)

IRDIs	Mothers	
	With some emotional alteration	Without emotional alteration
None abscent (no risk)	58 (73.4%)	94 (91.3%)
At least one IRDI abscent	21 (26.6%)	9 (8.7%)
Total	79 (43.4%)	103 (56.6%)

** Chi-squared Test: significant (p < 0,001)

An interesting result was found by correlating the BDI and BAI degrees, resulting in a significant correlation between them (G = 0.83, p <0.01), ie, in our sample, mothers with higher levels of depression also achieved a higher degree of anxiety, which shows that the emotional change in the puerperal period may be composed of depression and anxiety.

Another interesting aspect that fits a description for the reflection of this association is the frequency of changes of each IRDI and its possible relation to maternal emotional disorders (depression and anxiety), as described in Table 3.

Table 3 – Distribution of Risk Indicators for Child Development (IRDIs) individualized according to the mothers' emotional disorder combined (depression and anxiety)

IRDIs	Mothers with some level of:	
	Depression (BDI)	Anxiety (BAI)
IRDI 1: When child cries or screams and mother knows why	9	8
IRDI 2: The mother speaks to the child in a particular way (*mothering*)	10	7
IRDI 3: The child reacts to the *mothering*	5	3
IRDI 4: The mother proposes something to the child and waits for their reaction	9	7
IRDI 5: Child and mother exchange glances	7	7
Total	40	32

Legend: BDI = Beck Depression Inventory, BAI = Beck Anxiety Inventory
* It was considered as having some degree of depression and anxiety those mothers who had BDI and BAI scales mild to severe

DISCUSSION

The results of this research showed, in accordance with many studies [1,9,14,16,17,21,24,25], that the maternal state tends to influence the mother-baby relationship, given the association between maternal altered states and the presence of risks to child development. They also showed that there is an important association between depression and anxiety in our sample, which entails some reflections.

In what concerns the association between IRDIs and maternal states, either combined or isolated, the study confirms previous results[16,17], as well as the classical theoretical proposition about the dependence of a baby in relation to an Other primordial (Outro Primordial), which is usually performed by the mother and corresponds to that who possesses of significant care and making sense of what is at the beginning just reflex, bringing the baby to the world of language. Also show that babies tend to be vulnerable to the impact of maternal emotional states: depression, that has been widely studied, and also anxiety, however poorly studied [21].

It is also importantly noticed in this study, a high correlation of the combination of both symptoms, because depression was significantly associated with anxiety in our sample, which brings in two needs: the need to monitor the emotional state as a whole in the puerperal period during postnatal consultations, and the need to research the factors that may be creating such association. A significant hypothesis that can be used is that the pregnant woman is living a time of great challenges, as she must handle her job, along with other children and the challenges inherent in the current social conditions, therefore, requires a new pregnancy positioning, which is not always easy.

Studies have shown that spouse and family support, and financial conditions to allow greater security are some of the important factors for the neutralization of altered emotional states [16.17.] Possibly, these factors are related to the association between anxiety and depression.

Both emotional states are reflected in IRDIs demonstrating that they are able to capture the interference of maternal emotional states on child development. It is important to note that among the five IRDIs studied, IRDIs 1, 2 and 4 relate more directly to the maternal state, and 5 IRDI to relationship. However, IRDI 3 relates to the child's reaction to the proposals of the mother. Therefore, it was expected that IRDIs at this age group would be fairly sensitive to maternal emotional states, and that was confirmed in this study. Considering that in anxiety all IRDIs had been altered, but more often those related to the initiative of the mother (1, 2, 4 and 5) and that in depression, IRDIs 1,2 and 4 were the most affected, one can affirm that the initial hypothesis was achieved in the study.

It is important to note that IRDI 3 was not significantly changed because it refers to the baby's response to the voice, and when they did not respond to the mother, the psychologists responsible for the research spoke with the baby, which shows that the failures occurred in the mother-baby relationship. In this regard, we stress that it is through language that parents show their subjectivity and mark the places where their children will potentially be as subjects of and in language [29].

Although, it would be reductionist to assert a cause-effect relationship between the maternal emotional state and the presence of disorder in the

baby, because there are dyads in the study whose IRDIs showed no changes, despite the altered maternal emotional states. On the other hand, there are situations where there is maternal emotional states altered without changes in IRDIs. This fact shows that it is a unique and complex combination of factors that can generate a developmental or mental disorder.

Throughout this process we cannot forget the baby's genetic contribution that determines their readiness and ability to interact. These are combined with the availability / possibility of the other entitled to deal with the characteristics of the baby, whether feeding or not a baby's natural tendency. The baby is never passive in initial relationships. Thus, it is not possible to understand the functional disorders of the baby out of mother-infant relationship, as they relate to variations in family and social environments, with the characteristics and predispositions of the child and with the mental health of other relatives [30].

These aspects indicate the relevance of works such as this, of primary care, that seek to diagnose problems in the relationships of early mother-infant dyad, so that they can intervene early in order to reverse possible changes in child development and also help the mother in what concerns their mental health. In those cases, in which the maternal state affects (or is affected by the baby), the ideal would be to propose a mother-infant intervention in order to reposition the Other, causing the baby to find joy that will encourage the relationship, as well as so the baby no longer needs to respond only with symptoms.

Thus, a good relationship between the dyad depends on the baby being able to make use of their competences, taking advantage of permeability to the significant, conferred by biological maturity, including the appetite of enjoyment of the Other; in addition to an Other who is able to leave founding marks on their body by means of significant perceptions highlighted by their willingness, which is essential for the entering in the universe of language [31].

Moreover, the pattern of verbal interaction with the baby seems to be related to the attribution of meanings given to baby's actions, which may influence on the type / quality of verbal interaction established between child and caregiver[32], once when talking to their babies, mothers are not simply communicating or giving information to them, but instead, they are trying to make them engage in their conversations [33].

CONCLUSION

The study showed that there was a significant association between maternal emotional states, in combination (depression and anxiety), or isolated (depression or anxiety), and the presence of risk to child development. Likewise, there was an association between maternal depressive and anxiety states in the postpartum period.

Our findings suggest the need for the inclusion of public policies to what regards postnatal mother-infant mental health monitoring from the earliest stages. In addition, the IRDIs protocol shows to be effective for such monitoring.

RESUMO

Objetivo: analisar a associação entre os estados emocionais maternos depressivo e ansioso, combinados ou de modo isolado, em relação à presença de risco ao desenvolvimento infantil na faixa etária de 0 a 4 meses. **Método:** trata-se de estudo observacional, analítico e de coorte. Para a obtenção dos dados foram utilizados os Inventários de Beck de Depressão e de Ansiedade e analisada a interação mãe-bebê a partir do protocolo de índices de risco ao desenvolvimento infantil em uma amostra de 182 díades. **Resultados:** o percentual de bebês com pelo menos um índice de risco no grupo de mães que apresentaram depressão e ansiedade combinada foi significantemente maior (34,2%; p<0,001) do que nas mães sem alteração emocional. O mesmo foi obtido em relação às mães com algum nível de depressão ou de ansiedade (26,6%; p<0,01). Ainda, obteve-se correlação significante entre os graus de depressão e ansiedade (G= 0,83; p< 0,01e), o que demonstra que mães com maior grau de depressão, também obtiveram maior grau de ansiedade. **Conclusões:** houve associação significante entre ansiedade e depressão maternas e presença de risco ao desenvolvimento infantil, o que indica a necessidade de inserção de políticas públicas para o acompanhamento e tratamento de tais díades quando necessário.

DESCRITORES: Mães; Fatores de Risco; Desenvolvimento Infantil; Depressão; Ansiedade

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