ORIGINAL ARTICLE

The meanings that postpartum women assign to gestational hypertension and premature birth*

SIGNIFICADOS ATRIBUÍDOS POR PUÉRPERAS ÀS SÍNDROMES HIPERTENSIVAS DA GRAVIDEZ E NASCIMENTO PREMATURO

SIGNIFICADOS ATRIBUIDOS POR PUÉRPERAS A LOS SÍNDROMES HIPERTENSIVOS DE LA GRAVIDEZ Y NACIMIENTO PREMATURO

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ABSTRACT

The objective of this study was to understand the meanings that postpartum women assign to gestational hypertension that resulted in premature birth. Participants were 70 women, with a mean age of 28 years, 85.7% of whom delivered between the 32nd and 36th gestational week. A questionnaire with subjective questions was applied to identify the meanings of gestational hypertension and premature delivery for postpartum women. Results were analyzed based on the Theory of Social Representations. We observed the construction of a negative social representation, with death as the central nucleus and negative aspects as the peripheral nuclei. The latter derive from the risks the mother and fetus were exposed to during pregnancy and later in the postpartum period with the hospitalization of the child in the neonatal intensive care unit.

DESCRIPTORS

Pregnancy, high-risk
Pre-eclampsia
Infant, premature
Obstetrical nursing

RESUMO

Este estudo objetivou compreender os significados de puérperas sobre as síndromes hipertensivas da gravidez que tiveram como consequência o parto pré-termo. Participaram 70 mulheres com idade média de 28 anos e para 85,7% delas o parto ocorreu entre 32 e 36 semanas de gestação. Foi aplicado um questionário com questões subjetivas, com a finalidade de identificar os significados das síndromes hipertensivas da gravidez e do parto prematuro para puérperas. Os resultados foram analisados com base no referencial teórico metodológico da Teoria das Representações Sociais. Evidenciou-se a construção de uma representação social de caráter negativo, que teve como núcleo central a morte e como periféricos os aspectos negativos decorrentes dos riscos aos quais estiveram expostos mãe e feto durante a gravidez e o parto e, posteriormente, no período puerperal, com a hospitalização do filho na Unidade de Terapia Intensiva Neonatal.

DESCRITORES

Gravidez de alto risco
Pré-eclâmpsia
Prematuro
Enfermagem obstétrica

RESUMEN

El estudio objetivó comprender los significados de puérperas sobre los síndromes hipertensivos en gravidez que tuvieron como consecuencia un parto prematuro. Participaron 70 mujeres, media de edad de 28 años, para el 85,7% de ellas el parto ocurrió entre las 32 y 36 semanas de gestación. Se aplicó cuestionario con preguntas subjetivas, con el fin de identificar los significados de los síndromes hipertensivos den gravidez y del parto prematuro para puérperas. Los resultados fueron analizados con base en referencial teórico-metodológico de Representaciones Sociales. Se evidenció la construcción de una representación social de carácter negativo, que tuvo como núcleo central la muerte y como periféricos los aspectos negativos derivados del riesgo al cual estuvieron expuestos madre y feto durante la gravidez y el parto y, posteriormente, en el período puerperal, con la hospitalización del niño en la Unidad de Terapia Intensiva Neonatal.

DESCRIPTORES

Embarazo de alto riesgo
Preeclampsia
Prematuro
Enfermería obstétrica

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INTRODUCTION

The physiological changes that occur during pregnancy are usually quite tolerable for most women. However, some develop complications that can change the natural course of the pregnancy, which becomes a high maternal and fetal risk. Gestational hypertension (GH) is among the illnesses that characterize a high-risk pregnancy. GH has different degrees of severity, with preeclampsia as the most incident, and, along with other hypertension disorders, is responsible for maternal deaths, especially in developing countries[1-2].

In Brazil, evidence shows that approximately 10% of pregnancies evolve to high-risk and GH is the main cause of maternal and fetal death, with the highest rates occurring in the Northeast and Midwest regions, and the lowest in the Southeast[1]. These disorders have diverse clinical and laboratorial manifestations of unknown causes that bring up discussions in the scientific community due to their effects on mothers, fetus, family and society.

Regarding the fetal and neonatal effect, prematurity is one of the most frequent complications of GH, as a consequence of spontaneous delivery or an obstetric procedure of terminating the pregnancy due to maternal and fetal risk[3].

Studies that investigate the association between gestational hypertension and preterm delivery have evinced that GH may increase the incidence of premature birth, as prematurity ranges between 3.9% and 14.1%, according to the severity of the disease[4]. In this setting, recurring preeclampsia had the highest risk for adverse outcomes in pregnancy, such as preterm delivery, restricted fetal growth, abruption placentae, and fetal death[2]. It was also observed that women with gestational hypertension had a greater need to induce labor in the 36th gestational week [6].

In Brazil, an analysis on the causes of prematurity revealed that GH accounted for 38% of premature births, and women following an anti-hypertensive treatment were considered the group with the highest risk for prematurity, probably because it involved the most serious cases[5].

Because of preterm delivery, there is a tendency for newborns to require intensive care. In this sense, a study has shown that in 156 cases of preeclampsia, which deliveries occurred between the 35th and 37th gestational weeks, 33% of newborns needed intensive care, and stayed in the Neonatal Intensive Care Unit – NICU for three to ten days[6].

Therefore, it is observed that GH is one of the main causes of premature births and consequent NICU hospitalization. Nevertheless, to avoid unfavorable maternal and fetal outcomes, there is a need for knowledge about the physiopathology, early diagnosis, appropriate prenatal care, and making timely decisions in view of any complications.

In other studies, the authors also stress the importance of valuing the emotional aspects of women with GH and a possible premature delivery. Some studies show that when women experience a high-rick pregnancy, they deal with innumerable spiritual and emotional issues that may affect theirs and their newborn's health[7]. Hence, it is believed that GH is likely to cause emotional complications in women, with long-term effects.

In view of the problem related to the emotional issues that affect women with a high-risk pregnancy and especially in cases of GH, as a nurse faculty working in the neonatal and rooming-in unit and, everyday I see the insecurity, doubts, and fears of mothers who had to cope with GH, followed by a preterm birth and hospitalization of their child in the NICU. Because they experienced a high-risk pregnancy, those risks continue throughout the postpartum period, and increase their uncertainties about theirs and, especially, their child's well being, which were worsened because the care they received valued the physiopathological aspects of the disease for the women and the high-risk neonates.

> ...it is believed that Gestational hypertension is likely to cause emotional complications in women, with long-term effects.

From this perspective, we became interested in learning about the subjective aspects surrounding maternity in a situation of a high-risk pregnancy and, therefore, we recognized the need to investigate the context of GH for women who experience preterm birth as a consequence of these disorders, and their child's hospitalization in the NICU.

METHOD

This exploratory, descriptive, qualitative study was performed at a maternity hospital at Universidade Federal do Rio Grande do Norte (UFRN). This institution is a state reference for high-risk pregnancy, delivery, postpartum, and birth. In average, 400 deliveries are recorded per month, 16% of which are preterm. In 2007, there were 460 admissions of women considered to be at high maternal and fetal risk, and 380 were related to GH, with 208 resulting in preterm deliveries[8].

Participants were 70 women, who were included according to the following criteria: having developed GH, at least 48 hours postpartum following a preterm birth, and having visited their premature child at least twice in the NICU.

The interviews were performed in the hospitalization unit for postpartum women. The participants were invited

to speak about their experiences regarding gestational hypertension, the preterm delivery, and the hospitalization of their child in the NICU. Each interview lasted approximately 30 minutes, and all were recorded with previous authorization of the participants. The answers were grouped according to the proposed themes.

Data processing was performed using ALCESTE software version 4.8, which automatically analyzes the interviews, quantifying the text and extracting the strongest meanings from the textual structure.

The words that appear the most and with greater meaning in the textual structure receive a higher chi-square (χ^2), however, words with a smaller chi-square are also considered significant depending on the context. For the effects of evaluation, in this study, words were considered significant if the chi-square was above 10. All the procedures were performed without interference from the researcher, as the ALCESTE was elaborated with the purpose to preserve the random and intentional feature of the information[9].

The results were analyzed and interpreted having the Theory of Social Representation as the theoretical framework[10], founded on the Central Nucleus Theory[11], which permitted to identify constructions of the cultural aspect through meanings and senses brought by the women who experienced the GH and its consequences, which include premature birth and the hospitalization of their child in the NICU. The results were grouped into four classes: representation of gestational hypertension; representation of prematurity as a consequence of GH; representation about the hospitalization of their child in the NICU; and, finally, the representation of GH that leaded to a premature delivery and hospitalization in the NICU.

In the presentation of the results, with the purpose to preserve the subjects' anonymity, the mothers were coded using the names of precious stones. The study was approved by the Research Ethics Committee at Universidade Federal do Rio Grande do Norte (CEP-UFRN), under document number 195/06. The Informed Consent Form was read with each participant, all of whom signed the form before being interviewed.

RESULTS

The participants were in average 28 years old, most were married or in a common-law relationship, had a monthly income of three salaries or less, and nine years of study (58.60%). The mean number of prenatal appointments was four, and most women (n = 48) attended five or more appointments, which is considered a good frequency in prenatal care, as all of them had preterm deliveries, with a record of 85.7% occurring between the 32nd and 36th gestational week. Most had a caesarian delivery (90%), and 57.14% were primiparae.

In the following section we present the four semantic classes that emerged in this study.

Class I – Representation of the pregnancy with gestational hypertension

By analyzing Figure 1, it is observed that GH was strongly represented by the word *death* (χ^2 109.27) and that the other occurrences - *fear* (χ^2 106.4), *risk* (χ^2 60.76), *loss* (χ^2 36.44), and *surviving* (χ^2 28.76) – are related to the mothers' uncertainties about theirs and their child's survival.

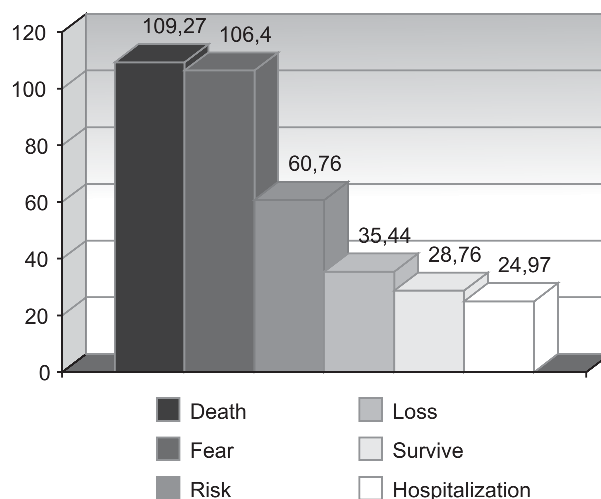

Figure 1 – Words that represented gestational hypertension for the 70 postpartum women

In the analysis of the mothers' statements, it was identified that the interviewees consider that the increase in their blood pressure was a characterization factor of GH and maternal and fetal risk. In this regard, it is important to stress that the discourses reveal a correlation that the women make between what is learnt by popular knowledge about the risks inherent to having high blood pressure during pregnancy, and what was extracted from the scientific knowledge in view of the onset disease. However, it was detected that this is limited knowledge and the clinical severity became noticed only after the need for an assistance of higher complexity.

> We have no idea that we are going through such a serious problem. I only realized it when they told me I had to be admitted and then I realized it was serious. The feeling I had was that my life changed its course and I no longer had any control over it. You no longer are the owner of your own your life (Diamond).

> I was admitted in a hurry to prevent me from dying or from losing the baby. I didn't have time to get my things in order, or even get my family in order. You leave everything behind: your family, work, life…. It's terrible. You know that high blood pressure is bad, but I didn't know that pregnancy could cause so much trouble (Emerald).

Therefore, the word *hospitalization* (χ^2 24.97) emerged as a means to preserve maternal and fetal lives, and was understood as necessary to avoid an unfavorable pregnancy outcome. On the other hand, it also triggered maternal difficulties, as it separated women abruptly from their social and family lives and submitted them to a rigid hospital routine.

For that reason, the following mothers' reports, whose idea is shared among 92% of the interviewees, reinforce the results obtained in Figure 1, which shows that the difficulties that the women face with GH were grounded on the fear of death and were objectified when the women required early admission.

> It represented living with the fear of death, of losing the baby or of one of us not surviving, because you really think you're going to die. You are admitted, you stay in bed, eat with no salt and still you only get bad news. The blood pressure won't go down, the baby inside you is suffering... It is misery! (Aqua Marine).

> When they said I had a high-risk pregnancy, I just saw myself dead! I felt useless, without any strength to fight, and that only made my pressure go higher. There wasn't a drug that could make it go down. I had to be admitted in a rush so I wouldn't die or lose my baby (Topaz).

These statements show the emotional overload that the women with GH were dealing with. The confirmation of a high-risk pregnancy reinforced the previous idea of death that they had brought from common sense. Furthermore, they demonstrated knowing that the stress they were experiencing favored the ineffectiveness of the drug therapy to control the hypertension in pregnancy.

Class II – Representation of prematurity as a consequence of gestational hypertension

In this category, the aim was to investigate the knowledge that the postpartum women had about the effects of GH on preterm delivery. Thus, as observed in Figure 2, the word *high blood pressure* appeared with the highest chi-square (χ^2 79.99), confirming the association that the women make between high blood pressure in pregnancy and premature birth.

However, when looking a the discourses more deeply, we observed that 85% of mothers also felt guilty for not having followed the doctor's orders about diet, rest, and treatment for managing hypertension, and took on the responsibility fort their child's premature birth, as shown below:

> I think it was because of my high blood pressure problems. I could have been more careful during my pregnancy. I didn't like to eat without salt. So I think I am also partly guilty for him having been born preterm (Safire).

> I liked sugar... Maybe if I had rested more, if I had eaten better, without salt, I could have avoided this. There are days I feel guilty for not having taken better care of myself and for my son having been born preterm (Ruby).

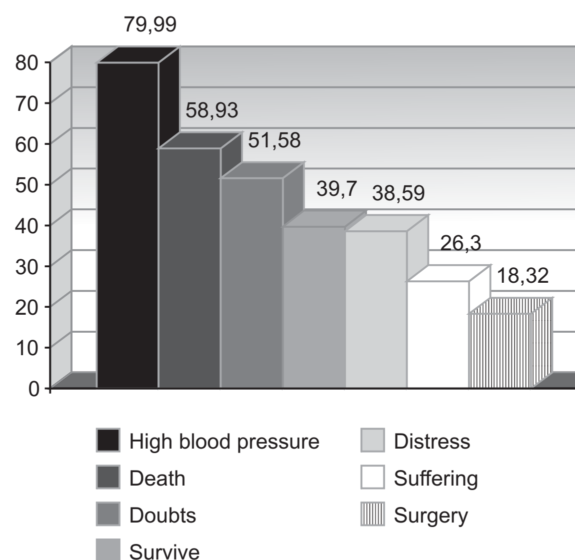

Figure 2 – Words that represented prematurity as a consequence of gestational hypertension for the 70 postpartum women

These results reveal that the representations that the postpartum women constructed about prematurity are influenced by what they learned from scientific knowledge and that high blood pressure can lead to prematurity, but also the consensual knowledge that attributes on the women the responsibility for their inability to have healthy children. Such situation triggers feelings of guilt and makes mothers assume an attitude of devotion and care, concentrating efforts to help their child to survive, and they often disregard the postpartum risks that are present in the persistent blood pressure rises in the postpartum period.

Procheeding with the analysis of Figure 2, it is observed that the word *death* appeared as strongly representative in view of preterm birth, as the second most frequent word (χ^2 58.97). Other words that follow reveal the feelings that the women experience with the birth of a premature child: *distress, suffering*, and *doubts.* On the other hand, the word *surgery* (χ^2 18.32) is revealed as the solution to GH that does not respond to the specific treatment and as a form of reducing the maternal and fetal risks of death, a situation that is experienced by most women submitted to a caesarian delivery.

Class III – Representation of the postpartum women about the hospitalization of their child in the NICU

As a consequence of premature birth, their child is hospitalized in the NICU and, according to Figure 3, the word *survive* has the highest chi-square (χ^2 52.09). However, the analysis of the mothers' statements reveals that this word originated in the *doubts* that the mothers have about their child's survival, reinforcing that the meaning of death is also present in the NICU context.

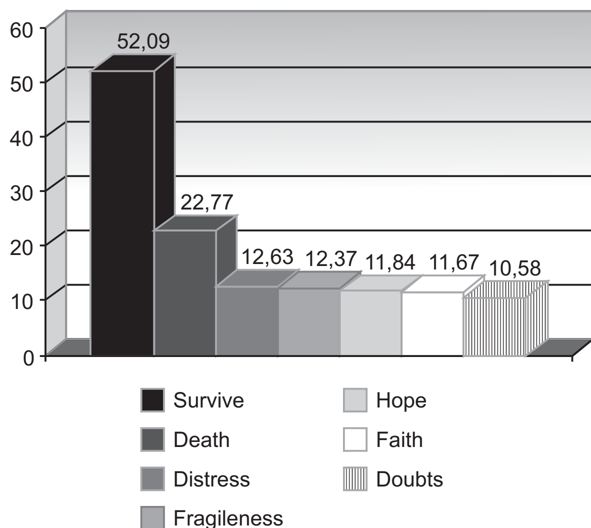

Figure 3 – Words that represent the NICU for the 70 postpartum women

It was also identified that the women became aware about the severity of their child's condition when they first visited the NICU and saw the *fragileness* (χ^2 12.37) of a small baby submitted to invasive treatments. In that situation, feelings of *distress* ($\chi^2$12.63) emerge and *faith* ($\chi^2$10.58) appears as a coping strategy for mothers in view of the meaning they attribute to the NICU, as a place very close to death, as revealed by 95% of the interviewees, as exemplified in the following excerpts from the mothers' reports:

> When I was told he had to go to the NICU, I thought it was the end. I though he would never leave the NICU and I would have to go home without my child (Agatha).

> Because the idea that you have of the NICU is that only very critical babies go there. You think he is going to die. And I had already heard about many babies who stayed there and died (Jade).

It is noticed that, as days go by, the meaning of the NICU is changed to the opposite - to a source of life, a place that help their child to survive. That place that was once considered as related to *death* assumes a meaning of *hope* (χ^2 11.84), and changes from being strange to being an ally in the fight for their child's survival, as revealed by 75% of the interviewees:

> The NICU represents the place that saves their life. It is difficult, but I think it is the only one. It is the last try to save those babies' lives, even knowing that they suffer a lot there, that it is a difficult place for mothers and babies (Tourmaline).

> It causes suffering, but they need to go there. The NICU eventually becomes our hope, because as long as the baby is there we hope they will survive. There they get all the care they need to survive (Amethyst).

The difficulties and uncertainties that the mothers express did not keep them from referring to the technical care they children received in the NICU.

> At the NICU, mothers go through difficult times. Some professionals treat mothers very harshly. Sometimes I think they don't like to explain about the baby's conditions. However, in general, the team is well prepared to care for the babies and they only die if they have to die, and not because they lacked quality care (Cristal).

> They are good professionals, but I think they should improve their communication with us. It is important for mothers and even for the family to have information about their baby's health condition. Sometimes they explain and we don't understand, because they use difficult words and get angry when we say we didn't understand (Opal).

These statements also express that the mothers, despite recognizing the positive aspect of the care that is provided to the newborns, pointed out about the flaws in the communication between them and the health professionals, which shows there is a power relationship and the abusive use of technical language by the NICU team.

Class IV – Representation of gestational hypertension followed by preterm birth and NICU hospitalization of their child

Based on the consolidation of the graphic results and the mothers' statements, Figure 4 was constructed, which shows that the word *death* was common across the analyzed classes. Thus, we can consider that it consists of a stronger representation of a pregnancy with gestational hypertension that resulted in preterm delivery and the NICU hospitalization of their child. This result is similar to that observed for the word *survive*, but in the data analysis, as presented in the classes, it is realized that this word concerns the mothers' doubts about their and their child's survival, which reinforces the meaning of death present in all the analyzed contexts.

Therefore, the GH that led to preterm delivery and the consequent NICU hospitalization of the newborn, as observed in Figure 4, had *death* as a connector, in a cycle that involved experiencing *distress, suffering, doubts, fear* and *hope*, in which the *hospitalization* worked as a means to preserve serious maternal and fetal complications.

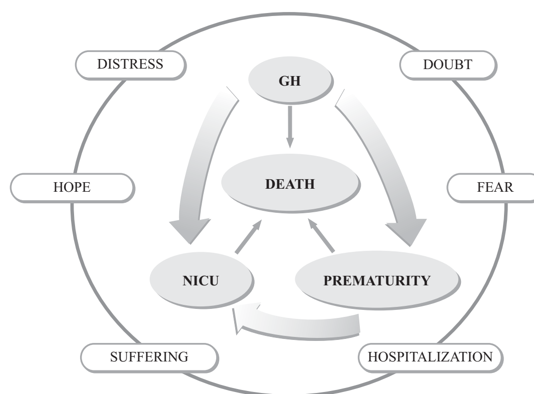

Figure 4 – Social representation of GH and some of its consequences - preterm birth and NICU hospitalization - for 70 postpartum women– Natal, RN - 2009

It should be stressed that the women experienced this reality in a time that, in normal conditions, is already considered to be a period of greater emotional unbalance. Therefore, it is realized that in a pregnant-postpartum cycle considered to be high-risk, that emotional instability was increased due to the stressful situations to which the women were submitted.

DISCUSSION

The interviewed mothers have satisfactory levels of education, instruction and frequency to prenatal care follow up appointments. Therefore, we can consider that the social representations in this study were constructed by women who were able to understand their changing process during pregnancy, and learn the information provided by health care professionals while being followed in their pregnant-postpartum cycle, as long as that information helps identify the risk factors, treatment compliance, and health promotion behavior.

The high occurrence of caesarean deliveries confirms the data from previous studies that point out that in Brazil there is a tendency for women to agree with the medical decision on surgical delivery as the priority[12]. This reality is more evident in situations in which the life of the mother or fetus, of both, is at risk, and the women agree to this decision with no questioning, with the aim to reduce maternal and fetal risks.

As to the incidence of preterm deliveries, the present study values are similar to those of previous studies that report a growing number in preterm births in women with gestational hypertension or preeclampsia[5,13] and the consequent hospitalization of their child in the NICU[6].

The corpus, analyzed under the light of social representation, permitted to identify the impact and repercussions that GH, as a situation that triggered traumatic emotional aspects originating from the fear of death of the women and child, was objectified with the mother's early admission.

The negative feelings that emerged due to the women's doubts about their own survival and that of their child caused greater emotional unbalance. These adaptive changes, common to high-risk pregnancies, result from their new role and the loss of control regarding their pregnancy[14]. It is believed that somehow these feelings may have affected the unsatisfactory response to the treatment used to manage hypertension and triggered the preterm delivery.

With preterm birth, it is observed that women are no longer concerned with the postpartum risks, because they focus all their efforts on helping their child to survive. A feeling of guilt then emerges in the women, because if on the one hand there is a discrete understanding of the scientific knowledge that high blood pressure can lead to prematurity, the consensual knowledge, influenced by social aspects, gives rise to the responsibility of not having been able to carry a full term pregnancy. Although these two types of knowledge qualify the representation of preterm delivery, it is realized there is a strong influence of empirical over scientific knowledge.

With the hospitalization of their child in the NICU, emerges the collective memory of seeing it as a place emblematic for death, but, later, they change that meaning to a place necessary to *save the lives of premature babies*. In this setting, new representations are established for the maternal role, emerged from the health team demands for mothers to participate in caring for their child in an unknown and frightening environment, which submits them to distress.

On the other hand, the mothers understand that their staying at the NICU accompanying their child is important for their recovery, but their permanence in the unit is difficult because of the technological devices, the technical language used by the professionals and their fear of causing their child to suffer[15]. It is indispensible that the care at the NICU associates technical skills and subjectivity, as an extensive and humanized practice to neonates and their parents[16].

The words *distress, suffering, doubts* and *fear* were expressions that constructed the peripheral universe formed by aspects of a negative experience built on the occasion of the label of a high-risk pregnancy, followed by hospitalization, preterm delivery and the consequent admission of their child to the NICU. Therefore, even if the resolvability of the highly complex service has pushed back the risk of maternal or fetal death, the *feeling of death* continued strengthened by the failure of an idealized pregnancy and objectified by the birth of a child in a situation opposite the expected.

Therefore, based on the definitions by one author[17], the peripheral elements in this study assume its functions in the following way: the *concretization role*, when the woman and premature child require hospitalization at a high-risk unit, triggering feelings of distress, suffering, doubts, and fear; the *regularization role* appears in the attempt to adapt women to this new reality, though the prolonged hospital stay causes physical and emotional distress; and the *defense role* when they use faith and hope as coping strategies and, most of all, when they see the NICU as source of life, even though in common sense they establish their relationship with death.

These meanings and feelings represent the influence of the peripheral elements in the formation of the central nucleus of *death*, which established that GH, under the light of social representation, as well as in scientific knowledge, represents the risk of maternal, fetal or neonatal death. This representation evinced that the negative aspects observed are strongly related with the social influences that the women have that maternity, as something

inherent to the female universe, causes disastrous physical and emotional repercussions when something happens different than the expected.

In this context, it is observed that the pregnant and postpartum period of the studied women was permeated with stressful situations and that the basic emotional needs were not fully met, thus causing feelings of despair and abandonment. In trauma situations resulting from the pregnancy and delivery, authors remind that women need to have places to talk about their traumatic postpartum experiences, because, when the meaning of an event is not analyzed, people tend to assimilate them, and that generates fragileness, vulnerability, and further traumas[18].

Therefore, it is considered that the social representation of GH and preterm delivery, in this study, corresponds to a "social representation of negative aspects" that requires attention about the peripheral elements because the changes in the peripheral nuclei permit the flexibility of the representational system and promotes changes in the central nucleus, which once transformed changes the representation[19].

Hence, it is believed that the negative aspects that comprised the peripheral nucleus and gave sustainability to the central nucleus can be minimized with appropriate guidance, early diagnosis, effective practice, a welcoming attitude of the team, health promotion attitudes and effective public policies. Actions that include reciprocity, trustworthiness, permanent dialogue and shared responsibility should be adopted by health professionals providing care to women with high-risk pregnancy, in the perspective to promote a health birth[20]. These conducts can change the meaning of the approximation of *death* that the studied women experience and which may have affected the adverse effects, such as the raise in their blood pressure and triggering preterm delivery and the consequent hospitalization of their child at the NICU.

CONCLUSION

Gestational hypertension, which promotes preterm delivery and the consequent hospitalization of the premature infant at the Neonatal Intensive Care Unit resulted in the construction of a negative social representation with death as the central nucleus and the peripheral nuclei were the negative meanings and feelings resulting from the stressful situations due to the risk to which mother and fetus were exposed. These situations permitted to identify a more subjective character of gestational hypertension, with dimensions of non-physical origins that do not characterize the classical symptoms of a disease, in which the strong influence from emotional factors contributed to the unfavorable outcomes.

In view of this finding, one questions the quality of the care delivered to the women participating in this study, during the follow up of their pregnancy-postpartum cycle, from prenatal care to the service of highest complexity, especially regarding emotional support, the quality of the information provided by the professionals, their explanations about gestational risks, and the health promotion care inherent to cases of gestational hypertension.

As this study was performed with women users of the public health system, we cannot guarantee that this situation is inherent to the women with gestational hypertension seen at private services. However, it is a significant sample assisted at a state reference service for high-risk pregnancy and births in Rio Grande Norte.

This study provides essential information that could sensitize health care professionals working with women's health services, so they would adopt a care practice that values the subjective aspects of pregnancy, especially in situations involving gestational hypertension, with a view to guarantee appropriate service conditions to provide women with the capacity to deal better with the adverse effects of a high-risk pregnancy and postpartum, i.e., with less distress.

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