Premature birth: approaches presents in national and international scientific production
Parto prematuro: abordagens presentes na produção científica nacional e internacional
Parto prematuro: enfoques presentes en la producción científica nacional e internacional

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Palabras clave: Parto prematuro; Cuidado prenatal; Enfermería

ABSTRACT

The study aimed to gather the scientific production about preterm birth. This is a bibliographic study, conducted across 24 full papers addressing prematurity, derived from the Virtual Health Library, published between the years 2008 and 2013. The analysis of the literature was carried out thematically, emerging four categories: Risk factors associated with preterm labor; Prematurity: negative and positive aspects; Professional Conduct related to preterm labor and the role of nursing care in preterm labor. This study indicates that many works are concerned about the risk factors associated with prematurity, contributing to early identification and reduction in rates of this complication. Still, few studies benefit nursing regarding to the knowledge and work process of such professionals, responsible for producing health at this moment in the lives of women and families are experiencing prematurity.

RESUMO

Estudo com o objetivo de conhecer a produção científica acerca do parto prematuro. Trata-se de um estudo bibliográfico, realizado com 24 artigos científicos completos abordando a prematuridade, oriundos da Biblioteca Virtual em Saúde, publicados entre os anos de 2008 e 2013. A análise dos artigos foi realizada tematicamente, emergindo quatro categorias: Fatores de risco associados ao parto prematuro; Prematuridade: aspectos negativos e positivos; Conduta profissional relacionada ao trabalho de parto prematuro e O papel da enfermagem na assistência ao trabalho de parto prematuro.
Este estudio aponta que muitas pesquisas estão preocupadas com os fatores de risco relacionados à prematuridade, contribuindo para a identificação precoce e redução nos índices desta complicação. Ainda, percebe-se que poucos estudos trazem contribuições para enfermagem, deixando de contribuir para o conhecimento do processo de trabalho desses profissionais, também responsáveis por produzir saúde neste momento da vida de mulheres e famílias que vivenciam a prematuridade.

RESUMEN

Objetivo del estudio fue conocer la producción científica sobre el parto prematuro. Se trata de un estudio bibliográfico, realizado con 24 trabajos completos que abordan la prematuridad, derivado de la Biblioteca Virtual en Salud, publicados entre los años 2008 y 2013. El análisis de la literatura se llevó a cabo temáticamente, emergiendo cuatro categorías: factores de riesgo asociados al parto prematuro, nacimiento prematuro: Aspectos positivos y negativos; conducta profesional relacionada con el parto prematuro y el papel de la atención de enfermería en el trabajo de parto prematuro. Este estudio indica que muchos investigadores están preocupados por los factores de riesgo asociados con la prematuridad, lo que contribuye a la identificación temprana y a la reducción de las tasas de esta complicación. Aún así, son pocos los estudios que brindan contribuciones a la enfermería, dejando de contribuir al conocimiento y proceso de trabajo de estos profesionales, también responsables de producir salud en este momento de la vida de mujeres y familias que viven la prematuridad.

INTRODUCTION

Premature birth (parto prematuro, PP) is defined by the occurrence of birth before term, that is, children born before fetal maturity, period before the 37th pregnancy week.

Although obstetrics has come a long way, prematurity has still been a challenge to public health, due to its mortality and neonatal morbidity. Regarding to the newborn babies (recém-nascidos RN), when they manage to survive premature birth, they are cause of great concern to health services as well as families for the damages which might stem from this birth.

Reality of prematurity in Brazil accounts for the “10th position among the countries responsible for 60 per cent of premature births in the world and there might have been 250 thousand premature births or more in 2010”. It hasn’t been confirmed by Brazilian governmental authorities yet.

In the state of Rio Grande do Sul, according to data from the Health Ministry (Ministério da Saúde -MS), prematurity accounted for 8.5% of births in 2004, at the highest level of prematurity among the other Brazilian states. In 2008, it rose to 9.2% of births, as the highest rate in the last 10 years. In the city of Rio Grande, the preliminary figure of premature births, also in the year 2008, was at 6.7%.

It urges to prepare the health system to meet the needs of the pregnant women to change the present situation. Professionals must be attentive to prenatal care, once it is highly important in early identification of risk factors for the expectants and the proper intervention.

In order to fight prematurity in Brazil, the Health Ministry updated, in 2012, the Technical Manual on High Risk Pregancies which provides guidelines for professionals and shows the main risk factors for premature birth. Among the factors which may trigger premature birth are the ones of psychological and social nature, such as lack of prenatal care, in addition to behavioral aspects comprising: increased physical activity, smoking, cocaine use, situations of distress and trauma.
Moreover, there might appear factors of physiological order such as: previous premature labor, history of one or more miscarriages in the second trimester, pregnancy in the extremes of pregnancy ages, maternal complications (clinical or obstetric ones), multiple pregnancy, congenital anomalies, polyhydramnios, and premature rupture of membranes, placental abruption, and maternal infections, among others. A number of results have proved to be positive regarding to early identification and treatment of both genital and urinary infections in pregnant women, as well as adaptability of the pregnant woman to the necessary care for the satisfactory handling of premature labor.\(^6\)

From what has been mentioned above, taking into account the high rates of premature birth in the Brazilian reality, this study aimed to learn more about the subject, identifying the different approaches taken to it in the scientific production, in order to provide elements to guide actions in the part of health services. Thus, finding out about the national and international scientific production regarding premature birth was the primary goal.

**METHODOLOGY**

It consists of an integrative review, chosen on account of the fact that this method enables to summarize studies which have been concluded and reach conclusions from a subject of interest.\(^7\)

The study was developed in the Virtual Library in Health, in the database of International Literature on Health Sciences – MEDLINE and Latin American and Caribbean Health Sciences – LILACS, applying the key word Premature Birth, on May 6th, 2013. Inclusion criteria were as follows: papers from scientific investigation with full text available, main subject Premature Labor, Premature Birth and Premature, from 2008 to 2013, in English, Portuguese or Spanish. It retrieved reference to 71 articles as available for analysis.

However, several titles were not available in the virtual environment, even though it was stated as a limiting factor and, after the first analysis, other articles which did not meet our standards were excluded as the search results retrieved the newly born, excluding the mother-baby binomial in the composition of the text, as well as some repetitive articles. Finally, the final sample for more detailed analysis was made of 24 articles.

For the presentation of the results, a thematic analysis of the articles in the sample was developed, they were gathered by similarities in approach and results found, where it was possible to come up with four categories: Risk factors associated to premature birth; Prematurity: negative and positive aspects; Professional attitude to the premature labor and The Role of Nursing in assisting premature labor.

**RESULTS**

The following integrative review is made up of 24 scientific productions (Table 1). From which, 15 were indexed at MEDLINE and nine at LILACS. In the national database, the articles with publications regarding the theme under study were: Nursing School Periodical of University of São Paulo - Revista da Escola de Enfermagem da Universidade de São Paulo - , Brazilian Periodical on Nursing - Revista Brasileira de Enfermagem – REBEn, State Periodical on Nursing - Revista Gaúcha de
Several publications were found in 2011 with 7 articles, followed by 2009 with 6 articles, 2008 with 5 articles, and 2010 and 2012 with 3 articles each. As for the languages of the articles, most of them were in English, with 15 articles, then Portuguese with 8 publications, and in Spanish there was 1 publication. It is important to note that up to the moment of the bibliographic survey, in 2013, there had not been published any article involving the subject of this investigation.

Table 1 – Articles composing the sample of scientific production on prematurity

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<td>11</td>
<td>The interaction between chronic stress and</td>
<td>GWEN LATENDRESSE, C. N. M.</td>
<td>J Midwifery Women’s health, v.54, n.1, p.8-17, 2016.</td>
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<td>15</td>
<td>Early weeks after premature birth as experienced by Latina adolescent mothers.</td>
<td>LOPEZ, N. C.; RODRIGUEZ, L. M.</td>
<td>Av Enferm, n.1, p.120-129, 2011.</td>
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<td>18</td>
<td>Mother and premature child living conditions: pondering over the difficulties of such care. (Vivência materna com o filho prematuro: refletindo sobre as dificuldades desse cuidado.)</td>
<td>SOUZA, LIMA, N.; ARAÚJO, A. C. P. F.; COSTA, I. C. C.; MEDEIROS, JÚNIOR, A.; ACIOLY, JUNIOR, H.</td>
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<td>21</td>
<td>Perinatal care at the limit of viability between 22 and 26 completed weeks of gestation in Switzerland. 2011 revision of the Swiss recommendations.</td>
<td>BERGER, T. M.; BERNET, V.; EL ALAMA, S. et al.</td>
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<td>22</td>
<td>Antepartum bed rest for pregnancy complications: efficacy and safety for preventing preterm birth.</td>
<td>JUDITH, A. M.</td>
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<td>23</td>
<td>The experience of Thai women facing the onset of preterm labor.</td>
<td>RATTASUMPUM, P.; RAINES, D. A.</td>
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<td>24</td>
<td>Stress and preterm labor and birth in Black women.</td>
<td>GENNARO, S.; SHULTS, J.; GARRY, D. J.</td>
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According to this survey, from a total of 24 studies on premature birth, 11 of them focus on risk factors as part of their development or considerations. The remaining works consider the representations and feelings involved in the experience of the birth of a preterm child for the mother as well as its repercussion within all the family. Only three studies mentioned the role of nursing in preterm birth and only one of them is, Brazilian. They study the specificity of the nursing work and its actions to contribute to qualified and effective assistance to the preterm labor. The categories are:

**Risk factors associated to premature birth**

It was identified that there is concern over risk factors according to studies involving the subject, contributing to better understanding of its identification, in order to improve assistance and reduce the incidence of premature birth.

Studying risk factors associated with premature birth is of major importance because it leads to more knowledge about its influence on the birth process. Better still, it may favour the care, helping health professionals to identify this, being attentive to characteristics of the expectants and, then, they can prepare assistance which involves premature birth prevention according to the reality of the woman.

Learning about the characteristics of the population can reduce the negative health indicators, mainly of child mortality, as it implicates in early identification and intervention. Health professionals have to be aware, as well as guide the women to seek urgent assistance as soon as they perceive any indicating sign of premature labor. Women’s first choice is usually to look for friends or family members before health services. Such finding may be the result of lack of information on prenatal care.

Regular prenatal assistance is the safest way to identify early signs and symptoms of a possible premature birth. Gestational hypertension is considered the most frequent risk factor associated with premature labor and premature birth, triggering preterm birth physiologically or interruption of gestation as medical conduct, in order to prevent mother-child complications. Such risk factor not only does trigger physiological alterations but it also brings emotional consequences to the women who are in treatment for gestational hypertension, as a cycle, where the triggering factor itself causes its intensity and complications. Women who go through such situation see this risk factor negatively, associated with the death and stress which mother and child are exposed to, and, hence, subjectively, its representativeness contribute to complications at the outcome of the case.

Stress is also taken into account as a risk factor which can lead to premature birth in women who are in treatment for premature labor, leading to a vicious circle for the woman’s physical and emotional conditions. Pre and post labor stress may worsen maternal conditions, resulting in puerperal depression and, for this reason, mothers of newly premature children need more care and intense observation to avoid complications. There is evidence that the physiology of stress associated to the physiology of deliver and gestation may form a physiological and pathological mechanism which explains premature labor, where women who suffer from chronicle stress are those who are more prone to premature birth.

Risk factors such as being a mother at early age or not enough prenatal appointments are proved in research developed in Espírito Santo, revealing that such characteristics are associated meaningfully to premature birth. The study stresses importance of
prenatal properly carried out and of good quality, once it is possible the improper prenatal care visits or the lack of them are a risk factor to premature birth because these women were not seen during gestation and might not know enough about healthy habits during pregnancy and the risks associated to premature birth. Another study developed in a city in Maranhão shows that prenatal assistance and healthy habits, when improperly taken, are situations which are linked to premature birth.

Other studies identifying risk factors associated to premature labor and its correlations verified placenta previa, diabetes and cardiovascular disease are positively associated to premature labor. As well as that, unipara mothers with double gestation are likely to a highest incidence of premature birth and caesarian section.

Prematurity poses a problem to public health as several risk factors are involved in the process. The professionals, thus, must identify the risk factors at an early stage and consider the hypothesis that a single factor was not responsible for the premature birth, but they must bear in mind that this a fact with multiple causes, which might be accounted for triggering this complication. By doing so, the outcome of each case may be satisfactory and maternal and fetal morbidity prevented.

Prematurity: negative and positive aspects

Some studies indicate the connection of prematurity with negative aspects, in the view of the women who experience this, as well as a factor related to life and health conditions of mother and child. However, one study found that prematurity, when overcome satisfactorily, brings to the mothers a feeling of intense care towards the child, of constant attention and a positive maternal adaptability to the needs of the child. It points out, meanwhile, that even though such characteristic present in mothers may be negative in certain aspects, as it may turn them into overprotective mothers.

Prematurity may lead to this kind of feeling because it is factor of extreme concern over the health of the neonate as it contributes to his morbidity and mortality. Premature children are more likely, in the long term, to have severe consequences to their lives such as: blindness, cerebral paralysis, learning and development problems. This reality is a challenge to both parents and health workers. Parents face an unexpected situation, gestation is shortened and they must make decisions which will eventually interfere in the future of their children, as for the health staff, they must handle the situation in a way that might bring impact to the heath of the newborn baby and the mother, in the short and long term.

As soon as the woman comes across the experience of premature labor, her stress levels are inversely proportional to her gestational age, as the shorter the period of gestation she is at when the premature labor begins, the higher the level of stress. Thus, it is seen that stress is risk factor to premature birth and eventually contributes to an improper outcome of the case.

Social construction perceived by women who experienced premature birth is negatively seen during gestation, once they consider prematurity as associated to the image of death. After living this condition, many of whom find themselves hospitalizing their child in intensive care unit, building an image of disease associated to prematurity in puerperium.
It is also considered a negative aspect concerning prematurity the fact that the mother
does not bring her child home with her after birth, as the baby is, usually, hospitalized
for special care. The woman, in this case, replaces the role of the mother with the role
of a companion, which disrupts the family dynamics, generating a feeling of losing
control over a situation she is living.\footnote{9}

Moreover, prematurity represents suffer to the women who lived this with their
children, as they went through a moment which was supposed to be of healthy life
cycle to the role of sick women who need special care.\footnote{22} and this suffering moment
lasts until the puerperal period.\footnote{23} From this context, it is understood the need to have
support of members of the family, mainly from the father, who, in many cases, is not
willing to handle the situation or, when he does, he also suffers emotional stress. As
well as that, the care to a newborn baby requires financial support from the family for a
long period, so that the child develops properly.\footnote{24}

For preventing prematurity and the negative consequences of what was mentioned
above, it is necessary a net of attention to health which interferes positively before
premature birth is settled. When prevention of premature birth is not possible, then, the
actions which enable the labor and do not bring any higher risks to mother and child
must be taken.

**Professional conduct related to premature labor**

Faced with a situation of premature labor, the woman must be received, have proper
assistance and be informed about her health, as well as the preventive measures in
case of emergence. Moreover, it is essential that the professional identifies risk factors
in the characteristics of the expectant at an early stage and that she has proper
prenatal assistance, adding to this an efficient decision-making process in face of
intercurrences. The event of a premature birth may be closely linked to the quality of
attention received by the expectant, as well as the attitude of each Professional
involved.\footnote{21}

The decision-making process of the staff assisting this moment must be shared with
the women and their families. For a safe decision to be taken, there must be
understanding and sharing of information related to the process of choice. The
individual who understands the process he is going through and feels participative,
Will contribute to a better treatment of his living conditions.\footnote{19} The Professional must
not be the sole holder of knowledge and share it with the people involved, using
accessible language to the reality of the women.\footnote{14}

Prenatal care represents an important ally in reducing the incidence of premature birth,
one it is a means by which the characteristics signaling risk factors can be identified
and the right measure can be implemented in order to prevent premature birth. The
rise in the incidence of premature birth is accounted for the quality of prenatal care and
its coverage.\footnote{25} Lack of prenatal assistance or improper number of appointments is
considered a risk factor for premature birth and is closely linked to its incidence.\footnote{9}
Some researchers stress that the quality of prenatal care does not interfere in the rate
of premature birth, however, the early identification of risk factors, signals and
symptoms are unarguable conducts in the prevention of prematurity.\footnote{26}

The care related to the moment of birth and attention to the neonate are also conducts
which are important to improve the quality of life of the mother-baby binomial. It must
be pointed out the relevance of the performance of the multidisciplinary staff in assisting premature labor, as different points of view can reach more profitable solutions to the health of the neonate and the parturient.²⁷ There is, also, the technical capacity and facilities which are not always available to help the professional care in preventing, recovering or maintaining health, and when there is not enough of this, it leads to a meaningful loss of care in this context.²

Social support to the professionals who provide assistance to premature labor is mentioned in several studies which stress that the biological aspect is important, but the emotional aspect will also play a role in the outcome of the situation. Such conduct will lead to a decrease in the women’s level of stress (risk factor to premature birth) as they see the multiprofessional staff as a partner; start to listen to orientations and to put information that was shared into practice.⁶

**Nursing role in the assistance to premature labor**

Nursing must be able to support emotionally and solve any doubts the families might have about the hypothesis of a premature baby. Being on suppositions may add considerable uncertainty to the parturient and her family in what regards to her health and decision-making, thus, the nursing professional must be willing and eligible to contribute towards a less traumatic experience for the clients.¹⁹

The nurse must be aware, as well, of the physiological and psychological fragility of the woman who experiences the premature labor. Thus, it must be understood the moment of each client to speak and make decisions on her health and the baby’s. Transparency of information about the case to the client is crucial for the understanding and decision-making to be effective and sound, so the conduct of the nurses must take all of these aspects into consideration.¹⁹

It is up to the nurse to plan the assistance, considering the personal knowledge of the woman and her family, particularly when it refers to her body and its present changes due to premature labor. In order to take this into action knowledge of the nurse about her client is necessary, as well as dialogue and use of education in health in the work process, favoring the woman’s autonomy.²²

When the conducts do not prevent the premature birth, the moment of birth must be experienced safely and calmly. The right measure taken by the nurse, at this point, bringing a humanized care, is the comprehension that this a time of fragility for the woman and her family, the need for a warm embrace at the neonatal unit and the emotional support. Thus, the experience of the parturient will be less traumatic.²⁸

Clearly, the nurses must be alert to appreciate the feelings of women who go through a situation of premature labor as well as use strategies for them to feel supported throughout the process so that the moment is more satisfactory. There are not as many studies geared to nursing on prematurity as on other categories, so it is important to focus research on its own field, benefiting the knowledge of its category and strategies to practice in its work process.
CONCLUSION

This study provided the knowledge on the scientific production on premature birth, which, mostly, deal with the risk factors for premature birth and stress the importance of prevention and proper handling of preterm birth to reduce morbimortality. Risk factors more mentioned in the literature as triggering premature birth were: gestational hypertension; stress; maternity at an early age; insufficient prenatal appointments; placenta previa; diabetes; expectant with cardiovascular disease and unipara with double gestation.

Literature shows that there is ambivalence in the views of women who live the experience of premature children. In some studies, prematurity was seen as something negative as it brings great concern to the woman and her family with the health of the newborn baby as well as anxiety, fear and stress, by contrast it was perceived that as soon as the woman can overcome satisfactorily this situation, it leads to feelings of deep affection and intense care to the child and more adaptation to supply his needs.

As for the conduct of the health professionals and the role of the nurse, it was possible to understand that it is up to them to provide adequate support to the mother and their families, based on solidarity and embrace, joining with technical and scientific knowledge to reduce morbimortality and face the situation as well as possible.

It is reinforced that the subject lacks in investigation in our country, seeking better understanding of the phenomenon of premature birth, on account of the fact that only eight studies accomplished the Brazilian reality. Moreover, it is clear the need for studies which focus on application and planning public policies in the working process of the professionals who provide assistance in the parturient-puerperal cycle, in order to assure humanized and qualified care to the mother-baby binomial, to the family and to society.

REFERENCES


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