

## Nascimento prematuro e assistência pré-natal: revisão integrativa à luz de Canguilhem

Premature birth and prenatal assistance: an integrative review in the light of Canguilhem

Nacimiento prematuro y la asistencia prenatal: revisión integradora a la luz de Canguilhem

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### RESUMO

**Objetivo:** identificar pesquisas que relacionam o nascimento prematuro com a assistência pré-natal, refletindo essa relação por meio dos escritos de Canguilhem. **Método:** revisão integrativa de literatura a partir de busca nas bases de dados disponíveis na Biblioteca Virtual em Saúde, no período de 2007 a 2011, com seleção final de seis artigos. **Resultados:** a relação entre nascimento prematuro e assistência pré-natal refere-se ao número insuficiente de consultas de pré-natal, ausência ou qualidade insuficiente do atendimento. A prematuridade e a assistência pré-natal devem ser consideradas como um todo único, com a consideração da concepção ampliada da assistência que se estende do paradigma biológico à subjetividade dos sujeitos. **Conclusão:** a partir dos conceitos de normal e patológico, espera-se contribuir para mudança de foco do profissional de saúde, da gestação para a gestante, não menosprezando aspectos clínicos e biológicos, mas considerando a mulher em sua singularidade, subjetividade e inserção no contexto social.

**Descritores:** nascimento prematuro; assistência pré-natal; filosofia; enfermagem.

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## ABSTRACT

**Objective:** to identify research linking premature birth with prenatal care, reflecting this relationship through the writings of Canguilhem.

**Method:** integrative review of literature from the search in the databases available on the Virtual Health Library, in the period from 2007 to 2011, with final selection of six manuscripts. **Results:** the relationship between premature birth and prenatal care refers to the insufficient number of prenatal visits, the absence or insufficient quality of care. Prematurity and prenatal care should be considered as a single whole, with consideration of the expanded concept of care that extends the biological paradigm to the subjectivity of the subjects. **Conclusion:** based on the concepts of normal and pathological, is expected to contribute to change the focus of health professionals, from pregnancy to the mother, not belittling clinical and biological aspects, but considering the woman in her uniqueness, subjectivity and insertion in the social context.

**Descriptors:** premature birth; prenatal care; philosophy; nursing.

## RESUMEN

**Objetivo:** identificar investigaciones que vinculan el nacimiento prematuro con atención prenatal, y reflejar esta relación por los escritos de Canguilhem. **Método:** revisión integrativa de la literatura con busca en la Biblioteca Virtual de Salud, 2007-2011, con selección final de seis artículos. **Resultados:** la relación entre nacimiento prematuro y atención prenatal se refiere a la insuficiencia del número de visitas prenatales, ausencia o deficiencias en la calidad de la atención. La prematuridad y atención prenatal deben ser consideradas como un todo, considerando el concepto ampliado de la atención que se extiende del paradigma biológico a la subjetividad de los sujetos. **Conclusión:** con los conceptos de normal y patológico, se espera contribuir al cambio del enfoque de los profesionales de salud, del embarazo a la madre, sin menospreciar los aspectos clínicos y biológicos, pero teniendo en cuenta la mujer en su singularidad, subjetividad y inserción en el contexto social.

**Descriptores:** nacimiento prematuro; atención prenatal; filosofía; enfermería.

## INTRODUCTION

Premature birth before 37 weeks of gestation is associated with significant morbidity and mortality in early life.<sup>1</sup> Its prevalence is high and increasing. In Brazil, an increasing trend of prematurity has been observed, as well as in other countries.<sup>2-3</sup>

A review of national population-based studies evaluated the increase in premature births. The rate of preterm birth ranged from 3,4 to 15% in the South and Southeast regions between 1978 and 2004. In the Northeast, studies conducted between 1984 and 1998 showed a rate of 3,8 to 10,2%.<sup>3</sup>

The etiology of premature birth is still little known, involving environmental, socioeconomic factors, biological characteristics and maternal reproductive history, pregnancy conditions, psychosocial issues, use of tobacco, alcohol and drugs, labor activity, physical activity and prenatal care, complications of pregnancy, fetal characteristics, among others.<sup>2-3</sup>

An important part of prematurity can be considered preventable with adequate assistance to pregnant women

during prenatal care. The appropriate prenatal assistance allows the diagnosis and treatment of complications during pregnancy, promotes emotional assistance and acts towards eliminating or reducing risks to the mother and the newborn.<sup>5</sup> The health sector has been developing strategies for prevention of premature births and treatment of possible complications during pregnancy. However, these actions may not be effective because the complications that occur during pregnancy, labor and birth are directly influenced by socioeconomic conditions, health and healthcare.<sup>6</sup>

The availability and the quality of care that health services provide to pregnant women are important determinants of the evolution of health conditions in childhood, and the relation between the lack or deficiency of prenatal care and prematurity - and, by extension, infant morbidity and mortality - have been demonstrated.<sup>5,7</sup>

The research and actions related to the prevention of preterm birth and to the analysis the quality of care during the prenatal contribute significantly to the reduction of maternal and infant mortality in Brazil,<sup>8-9</sup> and adequate prenatal care contributes both to decrease these events and to prevent maternal mortality - since care practices can make a significant difference in the health outcomes of mothers and babies.<sup>10</sup>

The attention given to pregnant women in prenatal care is one of the actions recommended by the Program of Humanization in Prenatal and Birth (PHPN) established by the Ministry of health in the year 2000, constituting one of the guidelines to reorient the model of assistance to women's health during this period. By following these guidelines, institutions must adequate themselves to the PHPN and health-care professionals should lead prenatal care in the direction of the quality care and service required by law<sup>11</sup> - focusing on expanding the access to prenatal care, on promoting criteria to qualify the consultation on fostering the link between outpatient assistance and childbirth assistance.<sup>12</sup>

These elements are relevant to nursing practice in the management of health care and nurses must have an expanded knowledge about the context of the factors contributing to premature birth.

Canguilhem's writings are related to such an expanded approach. The actor was a philosopher and doctor of medicine who in his work entitled "The Normal and the Pathological" defends the thesis that the problems of structures and human pathological behaviors cannot be fully understood in isolation, once they constitute an unique whole.<sup>13</sup>

Issues regarding to prenatal care and preterm birth permeate the design of care taken in this study, which criticizes the standardized form that often defines the conduction of health care - and considers premature birth as a compartmentalized event. The chances to clarify and better understand this phenomenon are higher if we consider the set, that is, all the complexity of factors involving prematurity, not dividing the event into details.<sup>13</sup> Such understanding can be better understood when one considers each premature

birth as a single event that comes from multiple and complex causality with several interconnected factors.

In this way, other possibility of approach - which doesn't fragment the premature birth in a multiplicity of factors represented by their own complex etiology - shall consider prematurity as an event to be regarded in its individual entirety.<sup>13</sup> Thereby the set of factors that act differently in each premature birth must be analyzed differently for each individual.

In his work, Canguilhem sees in assistance the possibility of considering contextual aspects of the individual that interfere in the health/disease process and highlights the importance of considering the subject's opinion regarding his/her health state according to his/her individuality. Concepts like normal, standard and regulations are used by the author to demonstrate that health can vary according to each human being depending on the environment, social and cultural characteristics and adaptation to adverse conditions, as long as it is preserved the performance of its functions and activities.<sup>13</sup>

In such context, in order to answer the research question "What is the scientific literature on preterm birth and prenatal and what are the possible contributions from the perspective of Canguilhem?" this study aimed to search in the literature studies that relate premature birth and prenatal care - analyzing this relation through the writings of Canguilhem. The study of prenatal assistance and prematurity through Canguilhem's view is justified by the fact that the analysis of premature birth under the most qualitative and philosophical prenatal care perspective must also be considered relevant to the practice of healthcare - especially of nurses and the nursing staff who work directly with the woman during pregnancy and childbirth.

## METHODS

Integrative literature review study, method that allows the incorporation of evidences in clinical practice and aims to gather and synthesize results of researches on a particular theme or issue in a systematically and orderly manner - contributing to deepen the knowledge of the object investigated.<sup>14</sup>

For the elaboration of the integrative review some steps were required.<sup>16</sup> The first was defining the purpose of the analysis that should be clear enough to guide the data collection. The second stage was establishing the document's body with the definition of criteria for inclusion and exclusion of studies, and also searching in the literature of the entire volume of relevant research.<sup>15</sup>

The research for texts was performed by the Virtual Health Library (VHL), in the following databases: Scientific Electronic Library Online (SciELO), Latin American Literature on Health Sciences (LILACS), International Literature on Health Sciences (MEDLINE), Cochrane Library, among others, from the descriptors *premature birth* and *prenatal assistance*, limited to the period between 2007 and 2011.

The research was conducted in July 2012 and had as inclusion criteria texts resulting from original research published in journals in portuguese, english or spanish, that were complete for reading in their entire extension - excluding theses, dissertations and documents held by government agencies such as the Ministry of Health and the World Health Organization (WHO).

In the first research conducted in databases 30 articles were found, 16 of which were fully available for reading. Three theses and seven articles that did not meet the study objective were excluded, resulting in a final sample of six articles distributed in LILACS and SciELO.

The third stage consisted in encoding the characteristics retained in selected studies, using an instrument to bring together and synthesize the key information.<sup>15</sup> Such instrument contained the number of the text, the title, the journal in which it was published, the year of publication, the authorship, the purpose of the study, the methodological approach, the type of study, the characteristics of the sample, data collection, data analysis, the results related to prenatal and premature birth and the limitations and suggestions highlighted by the authors.

In the fourth stage, the studies were evaluated and discussed in order to transform and interpret individual results searching to enable posteriors comparisons<sup>15</sup> with the theoretical knowledge, and the identification of conclusions and implications in the light of the benchmark of Canguilhem.<sup>13</sup>

This scientific research does not require the Research Ethics Committee approval, once it deals with access-free data. It was respected the authorship and results presented, beyond other ethical issues involved.

## RESULTS & DISCUSSION

The results were organized from the characterization of the studies that have examined the relationship between premature birth and prenatal assistance. In Figure 1 it's presented the synthesis of articles investigated, according to the authorship, year of publication, objectives and characteristics of the sample.

**Table 1:** summary of articles investigated according to article identification number, author, year of publication, purpose and characteristics of the sample. Brazil, 2012.

Authors/ Year	Objective	Characteristics of the sample
Suzuki; Ceccon; Falcão; Vaz (2007). <sup>16</sup>	Comparatively analyzing the frequency of prematurity and low birth weight among babies of teenage and adult mothers.	132 mothers and their newborns (51 teenage mothers and 81 adult mothers) interned in two public hospitals of the city of São Paulo, in the period from June 2005 to May 2006.

Authors/ Year	Objective	Characteristics of the sample
Cascaes; Gauche; Baramarchi; Borges; Peres (2008). <sup>17</sup>	Estimating the prevalence of prematurity in the State of Santa Catarina, Brazil, and identifying its associated factors.	Secondary data available in the database of SINASC of the State of Santa Catarina in the year 2006.
Barros; Araujo; Lins (2008). <sup>18</sup>	Investigating aspects of sensory motor oral system of preterm newborns of teenage mothers, comparing them with those of not teenager mothers.	15 mothers and 18 newborns with four mother/baby dyads of teenage mothers, being compared with 14 babies of 11 no teenage mothers in the period from February to April 2006.
Dal Pizzol; Giugliani; Mengue (2009). <sup>19</sup>	To assess the association between the use of prophylactic or therapeutic iron with premature birth and low birthweight.	3865 pregnant women who sought care at outpatient prenatal monitoring linked to the Unified Health System (SUS) of Porto Alegre (Rio Grande do Sul), São Paulo, Rio de Janeiro, Salvador (Bahia), Fortaleza (Ceará) and Manaus (Amazonas), between February 1991 and June 1995.
Silva; Almeida; Matsuo; Soares (2009). <sup>20</sup>	Identifying risk factors for preterm births.	328 pre-term births and 369 births aged 37 weeks old or older.
Ferraz; Neves (2011). <sup>21</sup>	Describing the risk factors for low birth weight of newborns in public maternity wards of Santa Maria, Rio Grande do Sul.	46 mothers of 49 newborns with low birth weight hospitalized in two public maternity wards of Santa Maria, Rio Grande do Sul, in the period from October to December 2009.

From the six selected publications special attention must be given to the journal *Cadernos de Saúde Pública* (Public Health Journals), with three studies. The other publications were found in the *Revista Gaúcha de Enfermagem* (Nursing Magazine of Rio Grande do Sul), *Magazine CEFAC - Speech, Language, Hearing Sciences and Education Journal* - and the *Brazilian Magazine of Human Growth and Development*, each one with one article.

Regarding the method, only quantitative researches were identified, with a predominance of studies with multivariate analysis. Stood out as data sources records of the mother and/or newborn, the Information Systems in the Health System - SUS, represented by the Live Birth Information System (SINASC), besides the use of semi-structured interviews.

Preterm birth was associated with prenatal care especially relating the insufficient number of prenatal consultations,<sup>18-20</sup> the lack of prenatal attendance<sup>17,20</sup> or inadequate access and quality of the given care.<sup>16-18,20-21</sup> Studies conclude that these factors contribute to premature birth, low birth weight and subsequent child mortality.

The analyzed studies also addressed the complex relationship of preterm birth with teenage mothers with lower education levels. Such educational deficit occurs due to the school abandonment, which leads to less knowledge regarding pre-natal care, causing insufficient number of consultations and delayed prenatal care.<sup>16-19</sup>

The results found are indicative of the need to improve family planning programs, because the sooner young girls get pregnant, the greater the risk of quitting school and being exposed to unemployment, thereby perpetuating poverty.<sup>16</sup> In addition, pregnant adolescents can be considered at risk for preterm birth, both biological and social factors.

Some maternal conditions such as hypertension, preeclampsia, eclampsia, urinary tract infection and anemia, emerge as contributors to premature birth and consequently to low birth weight and infant death. However, studies show that premature births can be reduced through proper control of pregnancies at risk during prenatal.<sup>18</sup>

The prevalence of preterm births was also high even in the presence of adequate prenatal care evaluated according to the recommended minimum number of queries, finding out that the rise in coverage without improving the quality of prenatal care does not reduce the prevalence of early birth.<sup>20-21</sup>

Even though the quality of prenatal care has not been the central object of the investigated studies, this has been pointed as a primary factor to be considered regarding the prevention of preterm birth - considering that many of the risk factors can be avoided or minimized through a good prenatal care. In this case, it is recommended that in addition to the improvement of the quality of life of the population (income and education) and increased access to services, it is essential to guarantee the performance of a good quality prenatal.<sup>16-18, 20-21</sup>

The inadequate or absent prenatal care can be defined as the no detection and subsequent lack of treatment of adverse conditions during pregnancy. In addition to the number of consultations, the early initiation of prenatal care in the first trimester and the care provided to the *binomium* mother/son are considered important for the reduction of prematurity.<sup>19</sup>

In this way, even without statistically significant association between premature births and adequacy of prenatal care, low maternal education situations, low family income, previous history of premature children, previous cesarean birth procedures, overweight or underweight, maternal cigarette use, prior treatment to get pregnant and unstable unions have been identified as eligible for assistance through qualified attention to dyad mother/child.<sup>17,20 -21</sup> Given this, the encouragement of prenatal care and the

disincentive to elective caesarean section could contribute to the reduction of preterm births.<sup>17</sup>

## DISCUSSION IN THE LIGHT OF THE PHILOSOPHER CANGUILHEM

The responsibility of the team to promote the maternal bond with the service and adherence to monitoring also reflects the quality of care,<sup>22</sup> which sustains the emphasis on clinical knowledge as an object of greater discussion. According to Canguilhem, to form a link with the individuals in therapeutic one can't see an individual through an impoverished relationship, in which he/she is taken as a biological body and object of the action, as if the action could avoid to resort to the cooperation of who is being "handled".<sup>13</sup>

In this sense, the health team should provide pregnant women and their family members emotional support and exchange of experiences and knowledge in addition to quality clinical care - considering the peculiarities of how every woman experiences pregnancy, pervaded by beliefs and values constructed along her socialization - thus promoting a humanized and quality prenatal.<sup>23</sup>

It's of a paramount importance to analyze the clinical gaze, which considers that spoken language relates to the demonstrations referred to as pathological by the individual who seeks the health service because of abnormal manifestations of your system. The statement "in the final analysis, are patients who usually judge, of widely differing points of view, if they are not normal anymore" is legit once one can only tell if something is normal by the existence of other patients.<sup>13 (p.95)</sup>

It reinforces an aspect that can contribute to the qualification of prenatal care: consideration of maternal perception about their own state of health or disease, since it is important to consider the opinion of the mother - subject - in relation to its state of health, in accordance with her individuality and by observation of her behavior.<sup>13</sup> The perception of the pregnant woman about her health status can also be built through the link with the health team and the prenatal adherence imposed by health professionals. Among the works analyzed in this integrative review, the perception of pregnant women about their health was not considered by the authors, but it can be underlying and influencing the demand for health services and to treatment adherence, for instance.

This perceived health condition is required to actually define their normal or pathological state, since the normal treatment is to what is considered as normal for the patient, being the pathological state a quantitative variation of the reduction of the tolerated living standards.<sup>13</sup> The studies summarized in this integrative literature review of premature birth and prenatal care have concluded that there are weaknesses in the quality of prenatal care. Even when texts referred to the appropriate amount of consultations during pregnancy, the authors indicated the need for an

improvement in care treatments as a strategy to reduce premature births.<sup>17, 20-21</sup>

For the improvement in prenatal care - besides the mother's perception of her own health - is important to analyze the pregnant women in the family and community. Thus, it would be formed a bond with the woman, which would promote the continuous monitoring of pregnancy, according to the same principles of the field hospital. With such a family and community link several pathological manifestations regarding the *binomium* mother/son would be learned.

The social aspects that influence the disease process - such as education and family income - also represent risk factors for preterm birth and need to be further explored during prenatal care, so that they can be identified and considered in the institution of therapy applied to each individual. This consideration reflects the finding that for the existence of actions it is necessary to determine and delineate the causal factors of premature birth, since it is the therapeutic need that must be considered to the initiative of any ontological theory of the event adverse to the disease.<sup>13</sup>

The vision of prematurity and prenatal care as a single whole, as well as the consideration of the perception of pregnant women about their health status are directed to an enlarged conception of care, in which the focus of attention expands. Such expansion is understood regarding the extension of the biological paradigm to the subjectivity of the subject, in order to overcome the clinical picture of normal and pathological, where there is the need for a scientific pathology linked to physiology.<sup>13</sup>

We need to discuss the qualification of prenatal care, even for those women who perform the appropriate number of queries, since according to the literature, they also present problems, many having as outcome of pregnancy the birth of a premature child. It is necessary to consider that the actions of routine prenatal present weaknesses in the identification and treatment of preventable diseases such as overweight or low maternal weight, hypertension, urinary infection and other maternal conditions.

For these reasons, it is recommended the watchful eye of health professionals also for clinical knowledge, practice that has proved as a potential instrument of work, which can make the differentiated service for pregnant women and their babies. The clinical knowledge on Canguilhem's vision encompasses not only the biological aspects of the individual, but also the existing variability in organisms - considering all the complexity of normal and pathological factors on every human being, and considering that the clinic is located at the confluence of various sciences, more than in a single science per se.<sup>13</sup>

One must understand that the number of queries and the attendance of routine prenatal tests do not guarantee by itself the quality of the assistance. It is not enough to have access to health services and examinations, the professionals responsible for servicing, the nurses, must have and use the

clinical knowledge once they are those who must provide the subsidies needed for intervention in adverse situations, contributing to the reduction of premature births.

The results of the studies analyzed in this review, in the light of the writings of Canguilhem, show that according to his theory there is a necessity to advance and expand the methodological approaches to understand the etiology and factors associated with preterm birth. First it is necessary to promote compliance of health professionals regarding the various guidelines of the official programs for prenatal care assistance. It is also necessary to consider and identify women who have vulnerable conditions indicated, among others, as low family income, low education and as black or mulatto. One must also consider that it is this population that typically uses the public health system, and are therefore the natural target for action by health staff in the primary health care system.<sup>24</sup> Therefore, knowing and observing how the phenomenon of prematurity occurs is essential to formulate preventive and interventional measures - once observing the behavior of the patient is indispensable to the diagnosis.<sup>13</sup>

## CONCLUSION

Premature birth was related to prenatal care in different studies, focusing on the insufficient number of queries, the quality or the existence of pre-natal assistance provided. The same investigated literature, the resumption to the clinical knowledge didn't emerged as a potential instrument for the organization of the work of nursing and other the work of other health professionals, which was made possible by expanded discussion of clinical birth in the terms of Canguilhem.

Thus, from the brief resumption of normal and pathological concepts, it is expected that the discussion will help to shift the focus of health professionals regarding prenatal care focused on pregnancy and on the pregnant women. That does not mean undervaluing the clinical and biological aspects present in gestation, but include the consideration of women in its singularity and subjectivity, without losing sight of its insertion in a social context.

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