

## USE OF NON-INVASIVE CARE TECHNOLOGIES OBSTETRIC NURSING IN HIGH RISK PREGNANCY

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**Abstract: Introduction:** The obstetric care model in force in Brazil is characterized by medicalization, intervention and valorization of invasive technologies. Since the 1970s, a care model focused on controlling the female body has been consolidated in the country<sup>1</sup>. In contrast, also in this period, social movements led by women gained strength by demanding the improvement of sexual, social and reproductive rights, as well as the rescue of protagonism through attitudes of respect for female autonomy.<sup>2</sup> Since then, there has been a search for a redirection of assistance to the humanized model, in which nursing care is more evident because it focuses on the conception of childbirth as a physiological and singular event. In this sense, Nursing uses Health Care Technologies in its daily care and specifically in the area of women's health, this concept can be envisioned as Non-invasive Obstetric Nursing Care Technologies (TNICEO), which consist of knowledge and procedures used by nurses as a way of offering other options to the parturition process<sup>1</sup>. Since the TNICEO are consolidated as a knowledge of Nursing regardless of the field of action, what is specifically observed in the high-risk scenario is that it already involves multiple stressors. This context causes many women with associated obstetric risk to develop feelings of guilt for not feeling able to conduct the pregnancy in a habitual way, compared to healthy pregnant women. The feelings of these women are aggravated by the greater need for hospitalization, which is common in high-risk pregnancies, which ends up confirming that they have fear, doubts, fears, uncertainties and concerns about the proximity of childbirth.<sup>3</sup> Faced with this problem and understanding that obstetric nursing care aims to provide comprehensive care and the physical and emotional well-being of all women, this study was based on the following guiding question: How TNICEO

are used in women's nursing care with a high-risk pregnancy? **Goal:** To know the use of TNICEO in the nursing care of women with high-risk pregnancies and their possible repercussions on the well-being of these women, based on scientific productions. **Thematic Reference:** Pregnancy is a period in which a woman carries one or more fetuses in her womb and is characterized by being a time full of social and emotional changes. Generally, pregnancy occurs as a physiological event, however, in about 20% of the population, it evolves with interurrences, complications or aggravations that can generate an unfavorable evolution for the mother or the baby, which classifies this woman as being a high-risk pregnant woman. Thus, a high-risk pregnancy must be confirmed when the life of the mother or fetus is compromised by a disorder unique to the pregnancy or that occurs during the gestational period.<sup>4,5,6</sup> In relation to maternal mortality, this is defined as any death that occurs during pregnancy, childbirth or up to 42 days after childbirth, as a result of causes related to or aggravated by the gestational period, not considering accidental causes. Because it is preventable in about 92% of cases, maternal death is more prevalent in underdeveloped countries and is considered a serious violation of women's human rights. Regarding its prevention, the importance of qualification of care is highlighted, especially in high-risk pregnancies. These women with associated risk have a high chance of unfavorable maternal or neonatal outcomes, if they do not have an adequately trained multidisciplinary team and have the necessary material and structural resources.<sup>6,7</sup> This way, it is evident that the performance of obstetric nursing is inserted beyond technical care, based on comprehensive care, including non-medicalized and non-invasive care that are essential and indispensable for women with high risk pregnancies. Thus, even if the nurse

does not directly assist the delivery of pregnant women with associated obstetric risk, her assistance results in care aimed at the safety and well-being of the woman and her child.<sup>1,4,5,6,8</sup> In this sense, the concept of non-invasion guides the TNICEO and positions obstetric nursing in a logic contrary to medicalized and invasive thinking, common and present in high-risk maternity hospitals. The TNICEO, in turn, are used by nurses as a way to make women more empowered and in an attempt to reduce interventions in the hospital environment. From the moment the nurse shares her care decisions using non-invasive technologies, a bond is established between the professional and the pregnant woman. Thus, it is assumed that the concept of non-invasion and respect for female protagonism prevails even in the face of procedures that may be necessary in high-risk pregnancies.<sup>9,10</sup> **Method:** Bibliographic research, of the state of the art type, which was based on the Virtual Health Library (VHL) database. We opted for publications available in the VHL that addressed nursing care for women with high-risk pregnancies, based on health care technologies, in full text, between 2013 and 2018, and in Portuguese, Spanish or Portuguese. English. As an exclusion criterion, all publications that did not mention the use of care technologies were removed from the analysis. We used the Descriptors in Health Sciences (DeCS) so that the screening of studies in the VHL covered research through title, abstract and subject. In the first survey, the equation [(Nursing Care) AND (Obstetric Nursing)] was performed, resulting in 3,913 publications, 945 of which were in full text. After applying the filters for the type of publication, time frame, languages and subsequent application of the inclusion criteria, 373 studies were found. In order to adopt a more precise equation, another descriptor was added, "High-Risk Pregnancy"

reducing the number of publications from 373 to 56, 24 of which were available in full text. After applying the filters, 17 studies were selected. Then, these abstracts were read where it was found that 4 of them covered the subject of interest, 3 articles and 1 thesis. The second equation was [(Obstetric Nursing) AND (Technology)] which resulted in 94 studies available, 38 of which were full texts. After applying the aforementioned search filters, 19 studies were considered. Of these, 9 already specifically addressed non-invasive technologies for women's health care, and 3 were respectively related to the parturition period. A third equation was made using the keywords [(Care Technology) AND (Gestation)] which resulted in a total of 336 publications, 139 of which were in full text. After the application of the search filters, 70 studies remained which, after having their abstracts analyzed, resulted in a total of 4 publications chosen for approaching light and/or non-invasive technologies and proving to be adherent to the objective of this research. The fourth and last combination used the terms [(Methods) AND (Non-Pharmacological) AND (Nursing) AND (Childbirth)] resulting in 34 studies, 29 of which were in full text. This number decreased to 19 after applying the search filters. After analyzing the abstracts of these productions, 7 articles and 1 thesis were selected with direct adherence to the object of this research and that deal with the use of non-invasive resources performed by nurses in labor. **Results and discussion:** At the end of the search steps in the VHL, 15 articles and 4 theses were selected, which were analyzed and subdivided into three thematic groups. The first group discussed the "Obstetric nursing care in high-risk pregnancies". The importance of nursing care for high-risk pregnant women was evidenced and how much this care positively impacts the health, well-being of this woman

and good maternal and neonatal outcomes. Nursing care in obstetrics is centered on caring for the person and respecting their individuality. The second thematic group discussed the “Obstetric nursing care technologies”. The nurses’ care practice is directly related to the use of non-invasive care technologies, such as encouraging freedom of movement; presence of the companion; use of warm bath; the use of massage and the Swiss ball, among others. These technologies are considered relevant for the humanization of care, which influence and direct care practice, and contribute to the consolidation of public policies in defense of the Unified Health System (SUS). It can also be said that, in addition to focusing on live work, the use of care technologies and the role of nurses in childbirth and birth care is configured as an efficient strategy to promote a paradigmatic change in obstetrics, as the demedicalized practices of these professionals, from the perspective of non-invasive technologies, incorporate new concepts into the care process, which corroborate the redirection of obstetric care logic. The third and final thematic group addressed the use of “Non-pharmacological methods of care in childbirth” and showed that the use of less interventionist and non-pharmacological methods during the parturition process, present with the use of TNICEO, directly influence more favorable maternal and neonatal outcomes compared to the interventionist and invasive practices of the medicalized model. Furthermore, the role of nurses has been related to a higher degree of satisfaction among women, as it conveys security, promoting comfort and rescuing self-confidence. Thus, the concepts that support non-invasive nursing care for the well-being of women with high-risk pregnancies go beyond the mere use of methods to relieve pain during the parturition

process, reaching a practice that involves the interaction of resources. intangibles, such as ideological conceptions, scientific knowledge and women’s knowledge, with the use of material resources, such as hospital norms and routines, instruments and equipment, mediated by live work that mostly resorts to relational skills or light technologies for the construction of a shared therapeutic care, with the rescue, appreciation and respect for the female body. Thus, obstetric nursing care is centered on individuality to the detriment of institutional procedures, where non-invasive technologies used by nurses in parturient care aim at their physical and emotional well-being throughout the process, with privacy, security and comfort considered as fundamental elements for a physiological progress of labor and for a positive and pleasant experience of childbirth, reducing the possible complications resulting from medicalized interventions and ensuring a healthy and respectful birth.<sup>3,5,11</sup> **Conclusion:** Non-invasive technologies in the care of women with high-risk pregnancies are mainly used in the parturition process and positively influence the physical and emotional well-being of these women, with privacy, security and comfort considered as fundamental elements for a physiological progress of this process. and for a positive and pleasurable experience of childbirth, contributing to the reduction of possible complications resulting from medicalized interventions and, thus, guaranteeing healthy and respectful pregnancy, childbirth and birth, even in the context of high-risk pregnancies.

**Keywords:** Nursing Care; High Risk Management; Technology; Obstetric Nursing; Women’s Health.

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