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EXPERIENCES OF HIGH-RISK PARTURIENT WOMEN WITH THE USE OF NON-INVASIVE CARE TECHNOLOGIES

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ABSTRACT

Objective: to analyze high-risk parturient women's experiences with the use of non-invasive nursing care technologies during labor.
Method: this is qualitative and descriptive research, with twenty high-risk postpartum women admitted to a tertiary maternity hospital in the state of Rio de Janeiro, Brazil. Data were collected from April to July 2019 through semi-structured interviews, subjected to thematic content analysis and analyzed in light of Kristen Swanson's Theory of Caring.
Results: the experiments revealed that theory processes were associated with the use of non-invasive care technologies by nurses. "Maintaining belief", "knowing" and "being with" were made up of the following technologies: encouraging self-confidence; understanding the lived experience; bond formation; and creating a supportive and helpful relationship with parturient women. The "doing for" and "enabling" processes included other technologies that promoted comfort and facilitated the experience such as: encouraging active participation and conscious breathing; stimulation of vertical positions and pelvic movements; companion involvement in care; using resources, such as warm water, Swiss balls and essential oils; and applying massages.
Conclusion: parturient women realize that the use of non-invasive care technologies by nurses shapes experiences of well-being during labor, expressed in feelings of safety, acceptance, respect, appreciation, support and comfort. The importance of investing in nurses' work in assisting high-risk pregnancies is highlighted, as these technologies provide respectful care and women's satisfaction with childbirth.

DESCRIPTORS: Obstetric Nursing. Culturally Appropriate Technology. Pregnancy, High-Risk. Parturition. Qualitative Research.

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EXPERIÊNCIAS DAS PARTURIENTES DE ALTO RISCO COM O USO DAS TECNOLOGIAS NÃO INVASIVAS DE CUIDADO

RESUMO

Objetivo: analisar as experiências das parturientes de alto risco com o uso das tecnologias não invasivas de cuidado de enfermagem durante o trabalho de parto.
Método: pesquisa qualitativa e descritiva, com vinte puérperas de alto risco internadas em uma maternidade terciária do estado do Rio de Janeiro, Brasil. Os dados foram coletados de abril a julho de 2019, através de entrevistas semiestruturadas, submetidos à análise de conteúdo temática e analisados à luz da Teoria dos Cuidados de Kristen Swanson.
Resultados: as experiências revelaram que os processos da teoria se associaram ao uso das tecnologias não invasivas de cuidado pelas enfermeiras. “Manter a crença”, “conhecer” e “estar com” se conformaram com as seguintes tecnologias: incentivo à autoconfiança; compreensão da experiência vivida; formação de vínculo; e construção da relação de apoio e ajuda com a parturiente. Os processos “fazer por” e “possibilitar” contemplaram outras tecnologias que promoveram conforto e facilitaram a experiência como: incentivo à participação ativa e respiração consciente; estímulo aos posicionamentos verticalizados e movimentos pélvicos; envolvimento do acompanhante nos cuidados; uso de recursos, como água morna, bola suíça e óleos essenciais; e aplicação de massagens.
Conclusão: as parturientes percebem que o uso das tecnologias não invasivas de cuidado pelas enfermeiras conforma experiências de bem-estar no trabalho de parto, expressas em sentimentos de segurança, acolhimento, respeito, valorização, apoio e conforto. Ressalta-se a importância de investimentos na atuação das enfermeiras na assistência às gestações de alto risco, pois essas tecnologias proporcionam cuidados respeitosos e satisfação das mulheres com o parto.

DESCRITORES: Enfermagem obstétrica. Tecnologia culturalmente apropriada. Gravidez de risco. Parto. Pesquisa qualitativa.

EXPERIENCIAS DE PARTURITAS DE ALTO RIESGO CON EL USO DE TECNOLOGÍAS DE ATENCIÓN NO INVASIVAS

RESUMEN

Objetivo: analizar las experiencias de parturientas de alto riesgo con el uso de tecnologías de atención de enfermería no invasivas durante el parto.
Método: investigación cualitativa y descriptiva, con veinte puérperas de alto riesgo ingresadas en una maternidad de tercer nivel del estado de Río de Janeiro, Brasil. Los datos fueron recolectados de abril a julio de 2019 a través de entrevistas semiestructuradas, sometidos a análisis de contenido temático y analizados a la luz de la Teoría del Cuidado de Kristen Swanson.
Resultados: los experimentos revelaron que los procesos teóricos estaban asociados con el uso de tecnologías de atención no invasivas por parte de las enfermeras. “Mantener la creencia”, “saber” y “estar con” se componían de las siguientes tecnologías: fomentar la confianza en uno mismo; comprender la experiencia vivida; formación de enlaces; y construir una relación de apoyo y ayuda con la parturienta. Los procesos de “hacer por” y “habilitar” incluyeron otras tecnologías que promovieron la comodidad y facilitaron la experiencia, tales como: fomentar la participación activa y la respiración consciente; estimulación de posiciones verticales y movimientos pélvicos; participación del acompañante en el cuidado; aprovechamiento de recursos, como agua tibia, pelotas suizas y aceites esenciales; y aplicando masajes.
Conclusión: las parturientas se dan cuenta de que el uso de tecnologías de atención no invasivas por parte de las enfermeras da forma a experiencias de bienestar durante el parto, expresadas en sentimientos de seguridad, aceptación, respeto, aprecio, apoyo y comodidad. Se destaca la importancia de invertir en la labor de enfermería en la asistencia a embarazos de alto riesgo, ya que estas tecnologías brindan un cuidado respetuoso y la satisfacción de las mujeres con el parto.

DESCRIPTORES: Enfermería Obstétrica. Tecnología Culturalmente Apropiada. Embarazo de Alto Riesgo. Parto. Investigación Cualitativa.

INTRODUCTION

Although pregnancy is a physiological event in women's reproductive life, in some cases, it develops amidst conditions that pose a real or potential risk to maternal or fetal health and well-being[1], representing a high-risk pregnancy. This classification arises from factors such as age, lifestyle, pre-existing conditions and gestational morbidities, and such situations may imply an increased risk for women with social vulnerabilities and who encounter barriers in accessing health services and qualified obstetric care[2–3].

It is estimated that, worldwide, 20 million pregnant women are classified as high risk, mainly due to high blood pressure and pre-eclampsia, which corresponds to approximately 15% of pregnant women. When observing deaths, it is clear that these pregnancies are related to unfavorable outcomes and, therefore, to an increase in maternal mortality rates from preventable causes[3–4].

Considering this overview, it is common for high-risk pregnancy diagnosis to generate experiences of psychological suffering, as, given the probability or occurrence of complications and hospital admissions, women may experience a feeling of loss of control, low self-esteem, fear, guilt, frustration, sadness, uncertainty, worries and less positive birth expectations compared to healthy pregnant women. These changes in the emotional state harm pregnant women's well-being and, when combined with sociocultural, financial and family issues, have the potential to trigger mental disorders[1–2,5].

For these reasons, care in high-risk pregnancies must go beyond the biological dimension, involving sensitive and affective care that embraces women's subjectivities, providing dialogue and sharing of feelings, doubts and concerns, and promoting comfort. These actions favor their emotional adaptation, encourage self-confidence and contribute to a positive attitude towards their pregnancy, childbirth and birth processes, contributing to achieving better health and well-being results[1,4].

With the aim of qualifying maternal and neonatal health care, promoting good practices in childbirth and, thus, reducing mortality rates, Brazil has invested in the inclusion of obstetric nurses in parturition care, recognizing that they provide humanized care that use appropriate and non-pharmacological technologies that reduce the need for interventions, pain and anxiety of women in labor, including in high-risk situations[4,6–7].

For obstetric nursing, this way of caring for consists of non-invasive nursing care technologies (NINCT), defined as knowledge, techniques and procedures that provide women with respectful, safe and evidence-based care experiences[8–9]. Therefore, NINCT encompass actions, which may or may not use instruments, mediated by interpersonal skills and humanistic values, with a view to building a relationship of shared care that respects human rights, promotes well-being and generates women's satisfaction with the parturition process[10–11].

Considering the complexity that permeates the experience of a high-risk pregnancy, nursing theories prove to be powerful for caring for these women and pregnant women, parturient women and postpartum women in hospital situations, as they help with physical and psychological adaptation to the pregnancy cycle-puerperal, provide comfort, enable understanding and respect for beliefs and values, increase the feeling of control over health, and promote self-care and participation in decisions about their care[4,12].

In this regard, the application of Kristen Swanson's Theory of Caring (STC) is very appropriate for nurses' work in prenatal care and childbirth, as it enables the construction of an empathetic relationship based on culturality. In this relationship, professionals respect the meanings attributed by women to pregnancy and childbirth, demonstrating availability, support and involvement, sharing decisions regarding unique therapeutic actions and maintaining belief in their ability to experience the processes with autonomy, safety and well-being[13–15].

Given the lack of studies that clearly present the application of STC[16], especially in the context of care for high-risk pregnancies[4,13–14], it becomes relevant to carry out research with this approach, articulating nurses' actions with NINCT together with high-risk parturient women, for whom "maintaining belief", "knowing", "being with", "doing for" and "enabling" are fundamental care processes[17].

Given the above, the following question emerged: what are high-risk parturient women's experiences with the use of NICT during labor? Thus, in light of STC, the study aimed to analyze high-risk parturient women's experiences with the use of NINCT during labor.

METHOD

This is a qualitative and descriptive study, developed in accordance with the COnsolidated criteria for REporting Qualitative research (COREQ) guidelines, which was carried out in the obstetric center of the maternity ward of a university hospital in the state of Rio de Janeiro, Brazil.

The institution is a reference for care for women with high-risk pregnancies, and is also a training space for health professionals of different levels and categories. The sector has a care team made up of doctors, obstetric nurses, nurses and nursing technicians, with specific clinical protocols for nursing care that include the use of NINCT during the labor of high-risk parturient women with a stable clinical condition and favorable medical indication. Due to their risk status, childbirths are predominantly carried out by doctors.

Participants were 20 women admitted to the maternity room's rooming-in ward. Postpartum women classified as high risk and having received care from nurses during labor, regardless of whether the obstetric outcome was vaginal or cesarean, were included. Postpartum women under the age of 18, with hospital admission during the expulsion period associated with staying in the sector for less than an hour, understanding that these conditions can interfere with the construction of a caring relationship from the perspective of NINCT, and with less 12 hours postpartum were excluded.

Participant selection and data collection took place from April to July 2019, and were carried out by the second author, a master's student at the time and who had received prior training. For the first procedure, the intentional sampling technique was used, starting with the active search for postpartum women by reading their medical records available at the nursing station to verify their eligibility. After this stage, a face-to-face invitation was made for voluntary participation of postpartum women who met the research inclusion criteria and the provision of prior explanations about the objectives of the study and the researcher's involvement in the research.

This process resulted in the recruitment of 22 postpartum women and, upon acceptance, participants were taken to a room close to the nursing station, in order to preserve their privacy during the individual interview. For data collection, a semi-structured interview script was prepared containing closed-ended questions about age, education, work and obstetric profile, in addition to two open-ended questions: tell me about nurses' care during their nursing work birth and explain to me how you felt during this care. This script also covered topics related to nurses' attitudes towards care, the NINCT used, sensations, feelings and perceptions in labor.

The interviews took place in the presence of a participant and the researcher, and, with due authorization, were recorded with the aid of a digital audio recorder, and lasted an average of 40 to 60 minutes. It should be noted that the instrument was previously tested with two participants and, despite indicating its suitability, the interviews were discarded as they did not reach the expected depth. Furthermore, there were no refusals to grant the interview or losses during data collection.

To complete this stage, inductive thematic saturation was adopted, when no new codes or topics were identified in the exploratory phase of the analysis of each interview. Therefore, sample saturation was determined during the analysis process of the transcribed statements, occurring in the

twentieth interview[18]. It is worth clarifying that transcript content was sent to participants for validity, who did not return it with any comments or corrections.

This material was subjected to thematic content analysis, which enables textual data description and interpretation through a systematic coding process[19]. From this perspective, each interview, considered as a unit of analysis, was transcribed and reviewed by two authors, in order to ensure transcription accuracy in relation to the audios. After reading and re-reading the transcribed texts, the textual segments of interest were selected and the units of meaning (UM) were identified. Then, the UM were condensed according to their content and context, labeled with a code and transported, together with their corresponding segments, to Microsoft Excel® 2016.

As part of the process of organizing and exploring the material, the UM were grouped by semantic equivalence and correspondence with the five STC nursing care processes[20]. The first process is “maintaining belief”, which translates into maintaining faith in high-risk parturient women’s ability to go through childbirth and face it with meaning. The second is “knowing”, which implies understanding parturient women’s experience, assessing their needs and focusing on them through dialogue, involvement, complicity and sharing of experiences and emotions. The third is “being with”, and expresses being present and available to the women in labor. The fourth process is “doing for”, which is about doing for and with parturient women with competence and skill, protecting them and preserving their dignity. Finally, “enabling” is facilitating the passage of a high-risk pregnancy woman through an unknown event, such as labor, with support and provision of information. It is noteworthy that the fourth and fifth processes represent the therapeutic actions implemented, with a view to high-risk parturient women’s well-being[17,20–21].

This phase was validated by two authors, culminating in the construction of the analytical categories as follows: “Care processes implemented with the use of non-invasive care technologies”; and “Perceived well-being from the use of non-invasive care technologies”. Finally, inference and interpretation were carried out based on the theoretical framework and studies on the topic.

In this study, measures were adopted to improve the reliability of the findings, such as: researchers’ familiarity with the phenomenon and research context; debriefing sessions between peers regarding the development of data collection, detailing and completeness of descriptions of methodological steps; and feedback between coders in assessing findings, interpretations and conclusions.

The research was approved by the Research Ethics Committee, and postpartum women were invited to participate by clarifying their purposes. They contributed voluntarily and did not receive any financial compensation. Before the interview, participants signed an Informed Consent Form. Their identity was preserved through the use of the letter “P”, referring to participant, followed by an Arabic number, which represents the order of the interviews: from P1 to P20.

RESULTS

The 20 postpartum women were aged between 18 and 40 years, with a mean age of 26.6 years. Most are single (12), completed high school (12) and have a work (11). Among the conditions that determined the classification of high-risk pregnancy, autoimmune (4), cardiovascular (4), genetic (3), infectious (2), neurological (2), psychiatric (2) and pulmonary (1) diseases, pre-eclampsia (3), obesity (1), obstetric history preview of prematurity (1) and stillbirth (1) stand out. Regarding the outcome, 18 women had a vaginal birth and 2 underwent a cesarean section.

The following chart presents the categories and subcategories of the study, followed by their condensed codes (Chart 1).

Chart 1 – Interpretive process of the study. Rio de Janeiro, RJ, Brazil, 2019.

Categories	Subcategories	Condensed codes
Care processes implemented with the use of non-invasive care technologies	"Maintaining belief": encouraging women's self-confidence in labor	Support in the face of fear of childbirth
		Encouragement to experience the event
	"Knowing": understanding the experience lived by parturient women	Knowledge of parturient women's feelings, emotions and clinical condition
		Demonstrations of availability, interest, affection and attention to women's needs and subjectivities
	"Being with": forming a bond between woman and nurse	Nurses' respectful attitudes
		Building a relationship of trust and help
	"Doing for": offering non-invasive care technologies	Promoting pain relief
		Favoring labor
	"Enabling": facilitating women's experience in labor	Guidance on the care process
		Inclusion and participation of companions in care
Perceived well-being through the use of non-invasive care technologies	Feelings associated with well-being during labor	Feeling safe
		Feeling welcomed
		Feeling respected
		Feeling valued
		Feeling supported
		Feeling comfortable

It is worth clarifying that, in the case of the first category, the subcategories correspond to the STC care processes implemented through NINCT so that the condensed codes express the contributions of the use of these technologies perceived by participants.

In relation to the "maintaining belief", "knowing" and "being with" processes, the women in this study highlighted nurses' skills and attitudes expressed in the care relationship which, from the NINCT perspective, refer to the following actions: offering support and encouragement; encouraging self-confidence; demonstrating availability, affection, interest and sensitivity; embracing subjectivities; respecting feelings, emotions and clinical-obstetric conditions; being attentive to unique needs; and requesting consent and providing explanations before examinations and procedures.

The "doing for" and "enabling" processes included other technologies such as: encouraging active participation and conscious breathing; stimulation of vertical positions and pelvic movements; companion involvement in care; using resources, such as warm water, Swiss balls and essential oils; and applying massages. For participants, these therapeutic actions provided comfort and pain relief as well as favoring the evolution of labor.

Care processes implemented with the use of non-invasive care technologies

The "maintaining belief" care process was evident in the use of NINCT, which encourage self-confidence in high-risk parturient women during labor. To this end, nurses offered support and encouraged them to face the fear of childbirth and possible negative outcomes resulting from the pathology associated with pregnancy, helping them to trust themselves and believe in their own abilities to go through the event.

[…] *I was very scared, because I didn't know what it was like to monitor pregnant women with HIV* [Human Immunodeficiency Virus], *the risks for the baby* [...]. *During the service, I didn't feel any prejudice!* [...] *at no time did the nurse say offensive things to me, they were always words of encouragement, which gave me strength!* (P10).

[…] *the nurse encouraged me during labor. I was feeling a lot of pain... there were times when I said I wouldn't make it, but she held my hand and said I would make it! So, it was a very important attention and I really enjoyed it!* (P11).

The care experiences concerning the STC "Knowing" process revealed demonstrations of availability, affection, interest and sensitivity in relation to their feelings, emotions and clinical-obstetric conditions such as NINCT used by nurses. In this regard, participants report that these professionals were attentive to their needs and subjectivities as well as offering support and guidance.

[…] *I was scared and crying; a nurse came and talked to me and was very kind.* [...] *she gave me several instructions and, every time, she went to the room to see if I felt better* (P15).

[…] *the nurses provided very good care. They were very attentive, they paid attention to everything I said and asked if I was feeling pain and other things too. They were worried about me* (P6).

Participants also valued nurses' respectful attitudes, expressed in welcoming and understanding the emotions expressed during labor as well as in requesting consent and providing explanations prior to carrying out exams and procedures. Such attitudes are NINCT that led to building a relationship of trust and help, denoting that these perceptions are related to the third process of caring for STC called "being with".

[…] *I felt very welcomed because we arrived here confused and, at times, even speaking rudely out loud, but they are very understanding!* […] *in addition to being nurses, they are also friends! They give advice, help and encourage… I felt I was capable!* (P16).

[…] *I felt really good. They* [nurses] *were very polite, they asked permission every time they examined me and explained beforehand what they were going to do* (P19).

Still on their experiences with NICT, participants recognized that their use promoted pain relief and favored the progression of labor. Corresponding to the STC "doing for" care process, it is noted that nurses offered these technologies according to the stage of labor and the specificities of each woman, guiding them on how to use them.

[…] *I used the ball in the positions that were on the labor positions wall. They explained to me that it was not good to bounce on the ball and advised me to make circular movements* (P1).

[…] *they* [nurses] *guided me to walk. This was very important because they* [doctors] *induced my labor. So, when I walked with them, I already went into labor. They also taught me about the ball and warm bath* (P03).

[…] *the nurse said I could do exercises that help dilate* [the cervix] *faster. And it really helped, because it really dilated really quickly. I even stayed on the ball and then in the warm water of the shower, because it also relieved the pain* (P14).

Parturient women reported satisfaction with nurses' care through the use of NINCT during labor, as they respected their choices and preferences, provided clarifications, promoted comfort and encouraged the companion's participation in care, corresponding to the STC "enabling" process:

[…] *In my birth plan, I stated that I did not accept labor induction* [...]. *When pain increased, the nurse advised me on what to do with each contraction, such as taking a warm bath, using the ball and walking. I felt welcomed and very respected* (P04).

[…] *they answered my questions and said I could take a warm bath. They encouraged my husband to have a massage. They were very attentive* (E13).

Perceived well-being through the use of non-invasive care technologies

High-risk parturient women's experiences with the use of NICT during labor reflected the five STC care processes, and provided well-being, which was associated with: demonstrations of tranquility, attention and technical-scientific knowledge; manifestations of respect for privacy regarding their social, clinical or obstetric situation; access to clear information in understandable language; and acceptance of desires, emotions and needs during parturition. Thus, they mentioned that the process of caring for nurses with NINCT generated feelings of security, respect and appreciation.

[…] *here I realize that everyone has a lot of knowledge and patience to explain what is happening. Nurses are super attentive and know how to explain care clearly and in a didactic way. They can talk to a patient as equals and that gave me a lot of confidence!* (P18).

[…] *I felt valued, because they were really there for me and my son. I felt capable! I said I wouldn't make it, but they encouraged me* [during labor] *and said I would make it!* (P5).

Furthermore, the well-being of women in labor also included feeling welcomed, supported and comforted, feelings that emerged from nurses' demonstrations of availability, solicitude, acceptance and support in the face of their demands. This way of caring for nurses with NINCT was recognized by participants as important for establishing a relationship of trust, overcoming fears, relieving pain and facilitating the progression of labor.

[…] *I felt welcomed and more supported. That fear I had, in a way, I overcame with the help and support of nurses. This was essential!* (P3).

[…] *I was more relieved and it was important for me* [to use care technologies], *as it helped my labor go faster. They* [nurses] *comforted me and I felt safe!* (P8).

DISCUSSION

For Kristen Swanson, nursing care presupposes a fundamental belief in people and their ability to meaningfully experience vital life transition events, such as pregnancy, childbirth, breastfeeding and motherhood itself[13–14,15–16]. This stance of conviction in the existence of personal and intimate meanings to be revealed in health-related situations allows nurses to develop care processes that promote well-being, demonstrating ethical commitment and humanistic attitudes towards a person's values and feelings[17,21].

Worries and fears related to parturition are common feelings among women with high-risk pregnancies, who may perceive themselves as powerless in the face of the disease and unable to control pregnancy risk, at the same time as they feel responsible for maintaining their health to avoid or mitigate gestational complications that can negatively impact fetal well-being[1–2,4–5], as observed among the participants in this study.

Pregnancy and childbirth are existential events permeated with meanings for women, which must be considered to encourage women's self-confidence in these moments of transition in their reproductive life. Thus, when they feel heard, understood and supported, they are able to take ownership of the event, restructure their emotions, gain confidence and give meaning to the experience[13–14,22,23,24].

In this regard, the parturient women interviewed reported that nurses believed in their ability to go through labor and encouraged their self-confidence for a satisfactory and meaningful experience of parturition, through offering support and encouragement, which helped them deal with labor pain and fear of unfavorable outcomes.

These experiences reveal the STC "maintaining belief" process, which begins with understanding women's values, beliefs and life context, which requires nurses to have relational skills to embrace their subjectivities and understand their biological needs, emotional and social aspects in the parturition process, enabling building a care relationship that sees this phenomenon in its entirety[13–15,17].

From this perspective, nurses support others in their decisions, respecting their beliefs and limits, maintaining active and sensitive listening to their concerns and establishing a dialogical relationship that allows exchanges during care[13–15,17,21]. In the case of the high-risk parturient women in this research, they noticed that nurses were available and attentive to the meanings attributed to their clinical-obstetric condition, demonstrating sensitivity to their feelings and emotions, identifying their demands, offering support and clarifications, and expressing the second STC process.

In this way, "knowing" contemplates the ethical aspects in the care relationship, which involves respecting human dignity and ensuring access to humanized and qualified obstetric care[25–26]. Nurses' demonstrations of interest, affection and attention were valued by study participants, suggesting that the care of these professionals promotes meeting high-risk parturient women's objective and subjective needs, providing positive birth experiences, in accordance with the humanistic values of nursing[9–10] and the principles that guide respectful maternal care[27].

Sensitive listening, interest, presence, understanding and acceptance are essential skills in building bonds and establishing a relationship of trust and help[8,22,26], especially for high-risk parturient women, who experience the events of pregnancy and childbirth by fears, worries and doubts[1–2,13–14,27]. Considering that participants perceived that nurses' care developed from this perspective, the STC "being with" process is verified, which consists of physical presence, emotional involvement and use of verbal and non-verbal communication to demonstrate support, respect and attention, in addition to encouraging the expression of emotions and sharing of knowledge and feelings about the moment experienced[1–2,13–14,28].

When analyzing high-risk parturient women's reports about nurses' way of caring, which is configured based on "maintaining belief", "knowing" and "being with", the use of different NINCT is evident, expressed in actions mediated by relational skills, corporeal-affective attitudes that, through an ethical attitude, favor bonding, empowerment and building of a care relationship that provides support, trust, security, satisfaction and well-being during labor[8–10,27]. Thus, it was possible to identify the following technologies: encouraging self-confidence, offering support and encouragement; understanding subjectivities and being attentive to clinical-obstetric conditions; being available, sensitive and committed to meeting the unique needs of each woman and sharing information and affection; welcoming feelings and respecting physical and psychological integrity, providing clarifications about care and requesting consent before procedures that invade the woman's body.

The "doing for" process, which involves anticipating needs, comforting and acting competently in the development of therapeutic acts, with protection and respect for the dignity and autonomy of the person being cared for, and the "enabling" process, concerning actions that facilitate the experience of being cared for through life transitions and unknown events, involve presence with and for others, using sharing, reflections and feedback in the elaboration and implementation of an individualized care plan[13–15,17,21,26].

It is noted that both processes were evident in participants' experiences with nurses' care during labor. This care included NINCT, expressed in actions that favored the establishment of a relationship of trust and overcoming fears, providing comfort and relaxation, relieving painful sensations and facilitating the parturition process with actions such as: encouraging active participation and breathing conscious of women; involving companion in care; using resources such as warm water, Swiss balls and essential oils; encouraging the adoption of vertical positions and the performance of pelvic movements; and applying body massage.

From this perspective, NINCT converge with the humanistic care recommended by international organizations and Brazilian public policies. Nurses' action from the perspective of these technologies are located in the subjective dimension of care, encompassing ethical and interpersonal skills expressed by nurses in interactions with women, involving welcoming, empathy, support, security and appreciation, which favor the building of bonds and respect of women's rights[8–10].

Thus, it is evident that study participants experienced their potential, overcoming their fears and referring to significant experiences based on nurses' care processes with NINCT. In this regard, they recognized that these professionals' skills, attitudes, attitudes and scientific knowledge represented therapeutic actions that promoted well-being during labor, which was associated with safety, welcoming, respect, appreciation, support and comfort. These perceptions translate into satisfaction with care, which is one of the attributes of quality of obstetric care, safe motherhood and respectful maternal care[27,29].

Given the findings of this study, it is possible to infer that the SCT assumptions anchor the use of NICT, revealing the dimensions that permeate nurses' actions with high-risk parturient women during labor. From this perspective, the theoretical dimension contemplates a set of technical-scientific knowledge and relational skills applied in the care process that provides an understanding of the singularities of the life context and maintenance of faith in women's ability to experience labor with meaning. As a consequence, there is the objective dimension, expressed in the therapeutic actions of NINCT, which favor physiological progression of labor, minimize painful sensations and reduce the need for interventions[22,27,30], given that vaginal childbirth predominated among participants.

On the other hand, the subjective dimension of NINCT is manifested in demonstrations of acceptance, availability, empathy, affection, sensitivity, involvement, tranquility and solicitude, which: favor the construction of a bond; convey support, security, respect and appreciation[8–10]; contribute to the reframing of fears and concerns associated with the negative repercussions of the pathology on pregnancy; and promote encouragement, well-being and positive experiences with childbirth[27,30], as seen among parturient women in this research.

The political dimension is manifested by alignment of nurses' actions with public policies, programs and official recommendations, which contribute to obstetric care safety and quality. The ethical dimension is evident in attitudes that include respectful care for the rights of women with high-risk pregnancies to live the moment of childbirth with fullness and meaning, just like low-risk pregnant women. Associated with this, the social dimension emerges, revealed in the observance of the principles and values of nursing, which promotes the exercise of citizenship. Finally, the philosophical dimension materializes in the holistic vision of care and in the humanistic, ethical and aesthetic being-know-how of nursing.

The main limitation of this research lies in the fact that it is a local study carried out in a single Brazilian maternity hospital focused on providing care to high-risk pregnancies, highlighting the need for further investigations in these care settings. However, its findings are close to those found

in international recommendations for childbirth care and in broader Brazilian research, which reveal the potential of nurses and obstetric nurses with NINCT along with low-risk pregnant women.

CONCLUSION

High-risk parturient women's experiences regarding the use of NICT by nurses during labor revealed the five STC processes, with emphasis on the following technologies: encouraging women's self-confidence during labor; understanding the experience lived by parturient women; bond formation; building a supportive and helpful relationship; promoting comfort and relaxation; relief from painful sensations; and facilitating women's experience during this reproductive life event.

Thus, the results of this study offer support for qualification of care for high-risk pregnancies, since the processes of caring for STC, implemented in nurses' actions with NINCT, provided well-being, feelings of security, acceptance, respect, appreciation, support and comfort for parturient women, while promoting their satisfaction with the parturition experience.

Considering that the quality and safety indicators of obstetric care are associated with women's experiences and are complementary to assessment of the structure, process and results of care, it is suggested that NINCT be incorporated by service management as one of the indicators of care practices and by educational institutions as a fundamental topic of ethical and humanistic nursing training. Furthermore, it is recommended to carry out research that addresses the cost-effectiveness of implementing these technologies in the process of caring for women with high-risk pregnancies.

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NOTES

ORIGIN OF THE ARTICLE

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APPROVAL OF ETHICS COMMITTEE IN RESEARCH

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CONFLICT OF INTEREST

There is no conflict of interest.

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