



# Feelings amongst high-risk pregnant women during induction of labor: a descriptive study

Bruna Celia da Silva Lima<sup>1</sup>, Magda Maria Alves Ribeiro<sup>1</sup>, Elizabeth Rose Costa Martins<sup>2</sup>, Raquel Conceição de Almeida Ramos<sup>2</sup>, Marcio Tadeu Ribeiro Francisco<sup>1</sup>, Dalmo Valério Machado de Lima<sup>3</sup>

1 Veiga de Almeida University2 Rio de Janeiro State University3 Fluminense Federal University

# **ABSTRACT**

**Aim**: to describe how high-risk pregnant women experienced the induction of labor and to discuss the feelings arising during that moment. **Methods**: a descriptive study with a qualitative approach, conducted with 10 high-risk puerperae who had labor induced in a university hospital located in the city of Rio de Janeiro. Data collection took place between March and April of 2015 through a semi-structured interview. Thematic Content Analysis was used to analyze the data. **Results:** the feelings revealed were acceptance, resignation, pain, fear and dissatisfaction. Positive feelings, such as love and belief, emerged regarding the child's birth. **Conclusion**: the puerperae mostly present feelings of resignation, suffering and dissatisfaction when experiencing labor induction. The practices adopted do not help to establish the caring relationship needed at this unique and feminine moment, leading to a requirement for greater monitoring by the nursing staff and other healthcare professionals.

**Descriptors:** Obstetric Nursing; Labour, Induced; Pregnancy, High-Risk.

## INTRODUCTION

Labor induction consists of using methods aimed at triggering uterine contractions to achieve the child's birth within a determined period of time. This method is used when continuing the gestation period will cause elevated risk to the mother and/or child. The procedure demands not only equipment, but also professional knowledge and experience, as it involves implications for the mother and baby<sup>(1)</sup>.

A large proportion of women, especially those who undergo high-risk pregnancy, experience induced labor - a procedure that is usually invasive and may cause discomfort, requiring caution and sensitivity when it is being performed.

Pregnancy is considered a physiological process, occurring most of the time without complications. However, some pregnancies may present the probability of clinical events that negatively affect the mother or the fetus, either due to pre-existing health conditions or to existing health conditions, defining this group of people as "high-risk pregnant women"<sup>(1)</sup>.

Feelings such as fear, anxiety and sadness can be experienced by women who have undergone a high-risk pregnancy. These could be associated with insecurity, lack of information, loss of control, acceptance of the risk factor, anguish or others(2). These feelings were observed in the pregnant women as soon as they were informed about the procedure. However, the use of non-invasive technologies during the prenatal stage, such as listening actively to the parous woman's verbal and non-verbal expressions, valuing her feelings, giving her freedom to move, encouraging the presence of a companion during labor and the possibility of liquid ingestion, promotes results seen as beneficial, making the pregnant women protagonists of the event(3).

Human care goes beyond physical condition, disease and risk; it must embrace the person and the bio-psychosocial perspective of these high-risk women. In this context, the present study was planned using the following guiding questions: how did the high-risk pregnant women experience the stages of induced labor? What feelings emerged during these stages?

This study aims to describe how high-risk pregnant women experienced induced labor and to discuss the feelings that emerged during that moment.

Given these considerations, the study has been shown to be relevant because it demonstrates the perception of women when going through induced labor. This allows the health-care professional to re-evaluate the concept of comprehensive care, preceding, therefore, a holistic care contemplating bio-psychosocial needs - focusing on the physiological, following a healthcare model centered on humanization, integrality and on the preservation of women's autonomy.

#### **METHODS**

This is a descriptive study with a qualitative approach. Ten puerperae recovering from high-risk pregnancies were interviewed. Their deliveries were performed in a university hospital, a reference centre for monitoring high-risk gestations, located in the city of Rio de Janeiro. The participants were selected after their medical records had been analyzed, observing the graphic used to register labor progression and health conditions of the mother and fetus and after the mother's authorization to induce labor. The following were used as inclusion criteria: high-risk pregnant woman, gestational age over 37 weeks with a live fetus, ability to communicate verbally, labor induced due to established

medical diagnosis and methods of labor induction that were clear and were properly registered. Pregnant women not classified as high-risk with gestational age equal to or less than 37 weeks, spontaneous abortions and labors that occurred without induction were excluded from the sample. The sample was intentional and the number of participants was defined through the method of discursive data saturation.

The study was submitted to and approved by the Institution Research Ethics Committee under the number: 923.943.

The Free and Clarified Consent Term (FCCT) was given to all participants and, after signing the document, the semi-structured interview started, being registered with a voice recorder.

Data collection took place between March and April of 2015, in a rooming-in setting of the abovementioned hospital, through a semi-structured interview containing 14 questions.

The data were trustworthily transcribed. The participants were guaranteed secrecy and anonymity. They were given fictitious names, each named after a gemstone. For data analysis the thematic content analysis method was used, following three stages: pre-analysis, exploration of the material and data treatment, inference and interpretation<sup>(4)</sup>.

It should be noted that the study presents limitations regarding the role of the obstetric nurse, as the participants of the study are high-risk pregnant women. Obstetric nurses have been developing new methods that make it increasingly possible to overcome boundaries and find autonomy, shaped by knowledge and technique with emancipatory possibilities<sup>(5)</sup>.

# **RESULTS**

Participants' profile: aged between 29 and 40 years old, most were married and in a steady

relationship, had completed secondary education and had family incomes of up to three minimum wages. Gestational history and parity: most women were multiparous, with no history of abortion. All of them had attended three to six prenatal care appointments. Most women were about 37 to 38 weeks pregnant at the time of labor induction.

The reasons for having their labors induced, according to their medical diagnoses, varied between preeclampsia, gestational diabetes mellitus, hypothyroidism, systemic lupus erythematosus, thalassemia, deep venous thrombosis, uterine myomatosis, immune thrombocytopenia, cardiac arrhythmia, existence of tetrahydrofolate reductase, myasthenia gravis and premature rupture of membranes. The medications used for labor induction were Misoprostol and Oxytocin.

Nearly all the deliveries were categorized as vaginal. Most of the newborns were in a rooming-in setting with their mothers. The majority of women had company during labor, represented by their husbands/partners and their mothers.

After analyzing the interviews regarding the high-risk pregnant women's feelings towards facing a preterm birth, two categories emerged: Acceptance and Resignation and Pain, Fear and Dissatisfaction.

High-risk pregnant women's feelings towards facing a preterm birth

Category 1. Acceptance and Resignation

The labor induction procedures, in particular the administration of the drugs, were often reported by the interviewed women.

I was told that the pill would make labor easier, that it would open the cervix. [Crystal] Nearly all the puerperae were informed about the administered drugs and their effects.

The doctor explained it to me, telling me I should start to feel pain. [Pearl] They told me it was to induce labor, increase pain. [Sapphire]

The doctor told me she would introduce that pill so I would start having labor contractions, but that IT? would not hurt the baby. [Topaz]

By analyzing the interviews, it can be noticed that the majority of the women wished that they could have had a natural childbirth.

All I could think is how I wished it could all have been natural, spontaneous (...)
[Amethyst]

(...) I wish it had come in another way, a lot more natural than it was (...) the name says it all: natural birth, much more natural, things should be a lot more pleasant to feel. Not C-section! The difficulty to walk, the pain, the cut... it's kind of taking the child out by force (...) If I could choose and try to deliver naturally... I would! [Topaz]

The women had feelings of acceptance and resignation regarding the news of having to undergo a preterm birth.

It's ok, I didn't know what I was expecting. [Crystal]

I didn't feel anything other than I knew I had to (...) I had to deliver the baby anyway. [Sapphire] Concern about the child's health was also related:

I was very scared... I lost blood... I was anxious to see him, healthy, see his face. You can only feel something after the baby is born... To look at his face. [Sapphire]

The flaws encountered during the labor induction process were highlighted.

I was expecting it was really going to work, I experienced the contractions hoping to give birth naturally, and when that didn't happen I was very disappointed! [Topaz]

I didn't want to go through all of that because it's dull waiting for something that doesn't progress (...) [Amethyst]

Category 2. Pain, Fear and Dissatisfaction

The majority of the puerperae characterized the moment of drug-induced labor as pain, the type of pain that jeopardizes wellbeing and comfort.

It was stressful! The contractions are very strong (...) [Sapphire]

Awful, painful! [Emerald]

Pain, cramps, I couldn't wait for that to be over. [Pearl]

I thought it would be fast, it was really going to work, but it didn't! I regretted it later because I suffered a lot. [Agate] Amethyst and Ruby describe the moment they were told they would have to undergo induced labor as feelings of fear and anxiety.

Fear! I was afraid the pain would grow stronger, and it did! [Ruby]

I was anxious, so anxious, because I've had an experience before and I didn't want to go through that again. My other child was born through labor induction too. [Amethyst]

Solitude also emerged amongst those women who did not have a companion with them during labor.

I felt alone. There was no one, just my mother and I. [Diamond]

There was also dissatisfaction regarding undergoing induced labor and not having a cesarean section right away:

Discouraging... I wish I'd come into the hospital feeling the contractions... in a more natural way... I was prepared for that. [Topaz].

I was upset because they forced me into giving vaginal birth instead of just doing a C-section (...). I don't know if it's the law that tells people to force vaginal birth. [Diamond]

Despite these negative feelings, positive feelings also emerged towards the birth of their child, such as love and faith:

Love! It's a life, isn't it? We wait for nine months to see this little face. [Sapphire]

Love for my son, all for him. [Pearl]

Faith. Because I knew that it was going to be over. She was what I wanted most. I just had faith and it was over. [Ruby]

# DISCUSSION

Happiness was also present during the moment the women heard about the induction of their labor, although Agate characterizes her moment as a change in her feelings, which went from happiness to suffering. This transition happened due to the induction process itself, leading her to characterize the occasion worthy of suffering and no longer happiness, prompting feelings of guilt and regret.

Due to their social model of maternity, happiness and satisfaction are usually part of what mothers feel during the expectation of finally delivering their babies. However, there could be changes in the feelings of these women, especially in high-risk parturients, giving place to insecurities, fears and anxiety in front of the unknown, the risk diagnosis, which makes them suffer, particularly because of the possible impact on their child's health (6). Given that, the health assistance during this moment must target the embracement of the woman from the beginning of the pregnancy until its end, directing the health professional's attention toward the comprehensive wellbeing of both mother and child.

The practice of inducing birth is necessary when there is a risk to continuing the pregnancy, focusing on life and on the wellbeing of the mother-baby dyad. Prior to that, the woman, her companion and her family members must be given detailed information about the labor induction process, such as its indications and potential associated risks. The agreement to

undergo the procedure must be registered in the woman's medical record(1).

Crystal's expectations were crushed by the pain and suffering associated with the moment of induction. When assisting the parturient, the healthcare professional should suggest activities that will help reduce the woman's anxiety, inform her of the labor progress and question her about the experience, aiming to better comprehend her feelings(7). Information is an indispensable tool for all professionals, especially for nurses. Fear was also present when the women heard about their labors being induced. When analyzing previous literature, it can be found that fear is associated with the daily lives of women who undergo high-risk pregnancies, being present from the prenatal period until the puerperium<sup>(8-10)</sup>.

Fear is a particular feeling for these women, as it relates to the anticipation of childbirth. It takes away their peace and tranquillity, since they now have to deal with the uncertainty and unpredictability of what is going to happen to them and to their babies<sup>(8)</sup>.

During this woman's period of vulnerability, the moment of labor and childbirth causes fear due to the risk of feeling pain and suffering. Given that, the pregnant woman must be reassured, having her complaints, fears and expectations heard<sup>(11)</sup>.

Dissatisfaction and sadness permeated some women's moments, especially regarding the way labor was initiated, as in Topaz's case. The possibility of going through an induced labor shatters the dream and the idealization of having a natural delivery, without complications, since the mother's clinical and physical conditions are not fit for a more natural, physiological labor.

In Diamond's speech, it can be noticed that she is not receptive to the idea of an induced labor, saying she would rather have an immediate cesarean section.

The high number of cesarean sections in Brazil does not appear to be linked directly with changes in the obstetric risk, but to cultural and socioeconomic factors. A woman's choice to have a cesarean section may be caused by healthcare professionals' influence during the prenatal period and by believing that the quality of obstetric care is strongly associated with technology<sup>(11)</sup>. Therefore, the pregnant woman and her partner should first be informed and enlightened about the chosen method and its benefits before agreeing to it.

The second category approached thoughts about labor induction methods. In this study's case the pharmacological methods were addressed.

The vast majority of the research interviewees mentioned in their comments the way in which the labor induction drugs were administered.

It can be noticed in Pearl's and Sapphire's statements that the healthcare professionals did not adequately explain that the medication would only be used to start labor pains. That alone contributes to the development of feelings such as fear, as fear generates pain and pain increases fear.

It is known that nurses are responsible for administrating drugs, especially oxytocin. However, for administrating Misoprostol, a nurse must also be qualified in Obstetric Nursing, so that he/she is capable of dealing properly with potential adverse events<sup>(12)</sup>.

However, regardless of the professional who administers the drug, doctor or nurse, he/she must be clearly informed of the effect that this may, in fact, have on the woman during labor induction.

The moments were characterized by feelings of disappointment and frustration. Disappointment may arise in the face of something expected that does not occur. It is directly linked to other feelings such as sorrow and loss.

These labor interventions will only be humanized if the woman's opinion is taken into consideration - as she, the fetus and the family are the scene's true protagonists. Therefore, all information must be given and their frustration taken into account<sup>(11)</sup>.

These women have negative feelings trapped inside them, characterizing the moment they gave birth to their child as a moment of loss; loss of their idealizations, dreams or expectations regarding their labor, as can be seen in Amethyst's and Topaz's statements.

Topaz says she prepared for natural birth, more physiological, with no interventions. Nowadays, women are much more conscious about their role and participation in labor<sup>(13)</sup>.

One study indicates that having a traumatic experience during labor can bring adjustment disorders during puerperium as it influences the woman's emotional state<sup>(14)</sup>.

Unfortunately, it was noted that not all the puerperae were warned about the possible outcomes and procedures that may occur during preterm labor. In the prenatal period, women must be informed about labor's possible outcomes and the procedures that might be involved.

Anxiety is also a feeling present amongst these women. When discerning anxiety, the fear of getting hurt or losing something or someone is found. This fear can either be real or imaginary, but the feeling is the same. Fear, like all feelings, has a purpose: alerting for danger and threat.

The mother's concern about the baby's health is present during all stages of labor, due to the possibility of losing the baby because of her health condition. Death can be inconceivable, as it is a moment of birth and not of such a terrible event<sup>(8)</sup>.

Agatha's statement shows feelings such as anger, irritability, being harassed, molested, put aside. Anger contemplates a wide range of feelings, having in common the aspects of loss and sorrow. Any emotional injury creates a negative feeling, such as anger, which might be accompanied by other feelings, such as hate.

When unveiling Agatha's feelings, it can be noticed that her negative emotions are due to the procedures executed during labor induction. In the puerpera's conception, the procedures were done unnecessarily and not carefully by the healthcare professionals, making her feel, in some way, violated. This created a resentment of not wanting more children so she does not have to go through that again.

Regarding her fasting, which was maintained for 16 hours, a study<sup>(15)</sup> shows that ingesting liquids while in labor was seen by women both in a positive and in a negative way. Pregnant women who ate felt satisfied and eating did not cause any disturbances during labor, providing better physical conditions. Pregnant women who chose not to eat were scared to be sick and vomit during labor. It is necessary, therefore, to consider the individuality and freedom of choice of these women.

Pain was undoubtedly the feeling most mentioned by the women. It can be pointed out that pain during labor, especially during induced labor, is exacerbated by labor induction medications, such as sintectic oxytocin and Misoprostol, leading to higher discomfort and increasing the parturient's pain threshold.

When stating that labor pains are influenced by psychological aspects, it can be said that the participants of the study are deeply threatened, as pregnancy represents biological, psychological, psychical and social changes in a woman's life. When all of these aspects become associated with a risk - a high-risk pregnancy - it can contribute to the intensification of the woman's pain threshold during this period<sup>(9)</sup>.

The pain of induced labor of a high-risk pregnancy has multiple interrelated causes, which end up culminating in physical pain. Often,

this stage is described by women only in terms of physical pain, suffering and fear.

The healthcare professional, along with the environment, contributes to providing increased comfort and care to the woman while she is experiencing labor pains. Nowadays, many non-pharmacological methods are available for relieving the pain and discomfort for the woman. For instance, continuous support, breathing exercises, shower baths, massages and relaxation exercises have been used to relieve pain with some puerperae<sup>(16)</sup>.

Despite being accompanied by her mother, Diamond stated feeling alone during this moment.

It is important to give the pregnant woman correct and detailed information, avoiding discrepancies and a lack of bonding between the woman and the professional. In order to fully take into account the human aspect of care, based also in integrality, it is crucial that pregnant women and healthcare professionals maintain a good relationship<sup>(17)</sup>.

Continuous education is necessary for professionals who provide this assistance in order to enable a reflection of the woman's role as the protagonist of her own labor and to become aware of her rights as a citizen in order to support her autonomy<sup>(7)</sup>.

In spite of the prevalence of feelings considered bad, good feelings also emerged, especially in the final moments of delivery, when the women could hold their children and feel love growing inside them.

It can be noted that the whole process was a proof of love, with a higher goal: overcoming themselves to hold their children in their arms. The short storm has passed.

One study shows<sup>(7)</sup> that, during labor, many women experience a reality of tolerance, resignation and suffering, in which intense and extended pain is present. Yet, in spite of that,

they accepted and tolerated it with the thought that seeing their children would be their reward.

Faith was a feeling related by Rubi. It can be noticed that the participant characterized the moment as of supremacy and persistence in the face of the difficulties of the moment. Faith, for these women, can be the explanation and motivation for moving on towards their goals: the accomplishment of being a mother and having their child in their arms as soon as possible.

## CONCLUSION

The reality presented in this study warned about the extent to which puerperae are scarred during the moments of their labors - scars that are described by feelings of pain, sorrow, suffering and deception and represented by moments of anxiety, braveness and especially fear - of pain, of the procedures and of their child's health condition.

However, it is evident that good feelings, such as faith and love, emerged as their children were born, as they finally, in their perceptions, had their reward after a tough time.

It is important to recognize that childbirth is unique for every woman. The feelings and moments are exclusive, but many of them can be noticed singularly and made plural, such as the need for support, listening and particularly information for these women, given that a high-risk pregnancy is a moment of higher biological, physiological and emotional instabilities.

It is noticed that the practices adopted for these moments are not effective for the care of high-risk pregnant women who are being submitted to induced labor. This contributed to the appearance of negative feelings during this moment, so unique and feminine.

As shown in the study, fear marks its presence for a while during these women's labor. Fear

is related to the unknown; therefore it can be noticed that the parturients deliver their babies without any previous knowledge of how the labor induction process works, nor its implications and its possible outcomes.

It is necessary to change healthcare models for high-risk pregnant women in order to provide them with better preparation for the birth process, beginning with the prenatal period. Nurses, especially obstetric nurses who work with the medical staff, must incorporate non-technological practice to use with the woman and her family for relieving possible discomforts during this important moment.

The significant role of obstetric nursing must transcend invasive and pharmacological procedures that cause painful feelings, offering more comfort and ease for the woman during the process of labor induction.

An effective communication between healthcare professionals, high-risk women and their families is crucial for reducing feelings such as dissatisfaction and guilt.

Certain practices discussed in this study make women discontent, discouraging them from future pregnancies.

It is hoped that this study enables heal-thcare professionals to reach a new overview, especially those who assist women experiencing this specific process and those who are responsible for the caring science. A comprehensive and holistic care that meets the demands of the mother-baby pair at risk is needed.

With regard to the limitations of a qualitative study, the number of participants was small, which may cause the minor possibility of generalizations.

## REFERENCES

1. Ministério da Saúde (Brasil). Secretaria de Po-

- líticas de Saúde. Departamento de Gestão de Políticas Estratégicas. Área técnica de Saúde da Mujer. Embarazo de alto riesgo: manual técnico. 5. ed. Brasília: Ministério da Saúde; 2012.
- 2. Wilhelm L, Alves CN, Demori CC, Silva SC, Meincke SMK, Ressel LB. Feelings of women who experienced a high-risk pregnancy: a descriptive study. Online Braz J Nurs [internet] 2015 [cited 2016 feb 02]; 14(3): 284-293. Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/5206. doi:http://dx.doi.org/10.17665/1676-4285.20155206.
- 3. Camacho KG, Progianti JM. A transformação da prática obstétrica das enfermeiras na assistência ao parto humanizado. Rev. Eletr. Enf. [Internet]. 2013 jul/set [cited 2016 feb 02];15(3):648-55. Available from: http://dx.doi.org/10.5216/ree. v15i3.18588. doi: 10.5216/ree.v15i3.18588.
- Camara, RH. Análise de conteúdo: da teoria à prática em pesquisas sociais aplicadas às organizações. Gerais, Rev. Interinst. Psicol. [Internet]. 2013 jul; [cited 2016 Fev 02]; 6(2): 179-191. Available from: http://pepsic.bvsalud. org/scielo.php?script=sci\_arttext&pid=S1983-82202013000200003&lng=pt.
- Gomes ML, Moura MAV, Souza IEO. Obstetrical practice by nurses in institutional childbirth: a possibility for emancipatory knowledge. Text Context Nursing, Florianópolis, 2013 Jul-Set; 22(3): 763-71.
- Oliveira DC, Mandú ENT. Women with high-risk pregnancy: experiences and perceptions of needs and care. Esc. Anna Nery Rev. Enferm. 2015; 19(1): 93-101.
- Silva LM, Barbieri M, Fustinoni SM. Vivenciando a experiência da parturição em um modelo assistencial humanizado. Rev. bras. enferm. [internet]. 2011; [cited 2016 Fev 02]; 64(1): 60-65. ISSN 0034-7167. Available from http://dx.doi. org/10.1590/S0034-71672011000100009.
- 8. Oliveira VJ, Madeira, AMF, Penna CMM. Vivenciando a gravidez de alto risco entre a Luz e a Escuridão. Rev. Rene. 2011; 12(1): 49-56.
- 9. Silva MRC, Vieira BDG, Alves VH, Rodrigues DP, Vargas GSA, Sá AMP. The perception of high-risk pregnant women about the hospitalization process. Rev. enferm. UERJ. [internet] 2013 [cited 2016 feb 02]; 21(esp.2):792-7.

- Oliveira VJ, Madeira AMF. Interagindo com a Equipe Multiprofissional: As Interfaces da Assistência na Gestação de Alto Risco. Esc. Anna Nery Rev. Enferm.[internet] 2011 [cited 2016 feb 02]; 15(1): 103-109.
- 11. Ministério da Saúde (Brasil) Cadernos Humaniza Sus. Humanização do Parto e Nascimento. Brasília: Ministério da Saúde; 2014.
- Conselho Regional de Enfermagem de São Paulo. Parecer COREN-SP 015/2012 CT. PRCI nº 99.068/2012. Administração de misoprostol no colo uterino em aborto com prescrição médica. 2012
- 13. Lagomarsino BS, Sand ICPV, Perlini NMOG, Linck CL, Ressel LB. A cultura mediando preferência pelos tipos de parto: Entrelaçamento de fios pessoais, familiares e sociais. REME rev. min. enferm. 2013;17(3):680-687.
- 14. Soares GCF, Andretto DA, Diniz CSG, Narchi NZ. Adjustment disorders in the postpartum resulting from childbirth: a descriptive and exploratory study. Online Braz J Nurs [internet]. 2012 [cited 2016 feb 02] 11(3),907-922. Available from:http://www.objnursing.uff.br/index.php/nursing/article/view/3884/pdf.
- 15. Wei CY, Gualda DMR Santos Junior HPO. Movimentação e dieta durante o trabalho de parto: a percepção de um grupo de puerpéra. Texto & contexto enferm. [internet] 2011 [cited 2016 feb 02]; 20 (4) 717-25.
- 16. Medeiros J, Hamad GBNZ, Costa RRO, Chaves AEP, de Medeiros SM. Métodos não farmacológicos no alívio da dor de parto: percepção de puérperas. Espaç. saúde 2015; 16 (2): 37-44.
- 17. Brasil EGM, Queiroz MVO, Fernandes AFC, Costa RF, Xavier EO. Perception of women on the care in the childbirth: contributions to nursing. Acta sci., Health sci. 2013 [cited 2016 feb 02]; 35(2): 195-200. Doi: 10.4025/actascihealthsci.v35i2.10442

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