Perceived pain and stress in post-vaginal delivery women

Dor e estresse percebido em mulheres no pós-parto vaginal

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ABSTRACT

BACKGROUND AND OBJECTIVES: Prenatal follow-up by nurses qualifies the assistance and is the moment when women's questions are answered, pain and stress are evaluated and relaxation methods during labor are explained, among other aspects. So, this study aimed at measuring referred pain and perceived stress of post-vaginal delivery women.

METHODS: This is a descriptive, analytical, observational and cross-sectional study carried out in a hospital Obstetric Unit with 40 post-partum women using short-form McGill Pain Questionnaire and Perceived Stress Scale.

RESULTS: Thirty-five percent of respondents, mean age of 25 years, were having their second baby and had term gestation with mild pain; 27.5% had moderate pain and 22.5% moderate pain. Mean "sensory" pain estimate index was 6.60. Questions 3 (have you been nervous or stressed), 6 (believed she was unable to deal with all the things she had to do) and 9 (has been angry due to things beyond her control), had the highest means.

CONCLUSION: Post-partum women refer pain and have post-vaginal delivery stress, thus the importance of evaluating such symptoms and of preparing women to cope with pain and stress during this period.

Keywords: Nursing, Pain, Puerperium, Stress, Vaginal delivery.

RESUMO

JUSTIFICATIVA E OBJETIVOS: O acompanhamento pré-natal pelo enfermeiro qualifica a assistência, momento em que esclarecem dúvidas da mulher, avalia dor, estresse, orienta sobre métodos de relaxamento durante o trabalho de parto, dentre outros aspectos. Assim, o objetivo deste estudo foi mensurar a dor referida e o estresse percebido por mulheres no pós-parto vaginal.

MÉTODOS: Estudo descritivo, analítico, observacional, transversal, realizado em uma Unidade Obstétrica hospitalar, com 40 puérperas, com utilização do Questionário McGill de Dor, forma reduzida e a Escala de Estresse Percebido.

RESULTADOS: Trinta e cinco por cento das entrevistadas, que tinham idade média de 25 anos, eram secundíparas e tiveram gestações a termo e apresentaram dor leve; 27,5% dor intensa e 22,5% dor moderada. O índice de estimativa de dor "Sensorial" teve média de 6,60. As questões 3 (esteve nervoso ou estressado), 6 (achou que não conseguiria lidar com todas as coisas que tinha por fazer) e 9 (esteve bravo por causa de coisas que estiveram fora de seu controle), apresentaram as maiores médias.

CONCLUSÃO: As puérperas referem dor e vivenciam o estresse no pós-parto vaginal, daí a importância de avaliá-los e de preparar a mulher para o enfrentamento da dor e do estresse neste período.

Descritores: Dor, Enfermagem, Estresse, Parto normal, Puerpério.

INTRODUCTION

Gestation, delivery and postpartum period are transition periods in women's lives, marked by expectations, doubts, anxiety and fear[1], caused by women and their families experiences. These periods, in addition to being biological events, are also social processes representing cultural values of a society[2].

Social representation of delivery is still identified as a painful stage and behavioral response is influenced by emotional and environmental perspective and by sociocultural factors which may interfere with the way parturients feel and interpret the delivery process[3]. The Ministry of Health has continuously created and coordinated labor attention programs and actions directed to integral and humanized attention to mother and baby health, encouraging the use of mechanisms to decrease pain during vaginal delivery and provide conditions of tolerance to pain and discomfort[4,5].

Considered a negative experience, pain is sensory or emotional, associated to real or potential tissue injury, with physical and emotional consequences, which result in anxiety and temporary or permanent incapacities. For being subjective and multidimensional[6], the way people feel pain may be influenced by factors such as socioeconomic conditions, cultural context, memory, expectations and emotions, coping strategies, among others. So, pain experience is unique for each individual.

Aspects which may interfere with post-partum pain are physiological changes caused by delivery experience and surgical procedures, such as episiotomy, which may bring post-partum difficulties[7]. In this sense, lack of information on the delivery

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process interferes with women and their families evaluation and may contribute for the triggering of stress and increased pain[8]. Stress is a set of responses issued by the body to react to something that has awaken it. The body, when being constantly exposed to stressors spends more energy, and this process may be understood as physiological, psychological and behavioral response of someone trying to match and adjust to internal and/or external demands[8]. As from the understanding of pain and stress repercussion in the postpartum period, it is possible to the health team to implement non-pharmacological strategies for pain relief and so qualify women's assistance in the delivery process[9].

In light of the above, this study aimed at evaluating pain and stress in post vaginal delivery women.

METHODS

This is a descriptive, analytical, observational and cross-sectional study carried out in the maternity of a Hospital Size IV in the Northwest Region of the State of Rio Grande do Sul. Sample was of convenience and made up of 40 postpartum women who met inclusion criteria. Two women have net met them, thus being excluded. Inclusion criteria were: being hospitalized in the maternity after vaginal delivery, refer or present pain symptoms in the last 24 hours, be above 18 years old and accept to participate in the study. Exclusion criteria were: women with difficulty to understand data collection tools questions.

Data were collected from April to August 2014. When agreeing to participate, patients were oriented to sign the Free and Informed Consent Term (FICT). A characterization and socio-demographic form was used for data collection, in addition to obstetric information and checking patients' medical records. Aiming at measuring pain and stress in post vaginal delivery women, McGill Pain Questionnaire (short form) and Perceived Stress Scale (PSS-10) were used.

McGill Pain Questionnaire refers to pain perceived in the last 24 hours and at application time. It has four parts: Sensory Pain Rating Index (PRI-S), Affective Pain Rating Index (PRI-A), Present Pain Intensity (PPI) and Global Pain Experience Evaluation. PRI-S is made up of 11 descriptors of sensory pain experience and PRI-A by four descriptors of affective pain experience. Each descriptor has indicators of pain intensity and values from zero to 3: (0) no pain; (1 mild pain); (2) moderate pain; and (3) severe pain. PPI is made up of a visual analog scale (VAS) where patient is invited to put a perpendicular trace along the horizontal line, which varies numerically from zero to 10cm, aiming at indicating pain intensity at that moment, being zero no pain and 10 the worst imaginable pain. McGill questionnaire evaluates pain in three dimensions: sensory, affective and evaluative and is based on words patients select to describe their own pain.

Sensory dimension includes words describing pain experience quality in terms of temporal, spatial, thermal pressure and other similar properties. Affective dimension includes words describing pain experience quality in terms of tension, fear and autonomic properties, part of the pain experience. Words included in the evaluative dimension describe global subjective rating of pain intensity.

PSS-10 measures the level in which life situations are evaluated as stressors[10]. It is made up of 10 multiple-choice items regarding the frequency with which people perceive some situations, with answer options varying from 1 to 5: (1) never; (2) almost never; (3) sometimes; (4) almost always; and (5) always. Questions with positive scores (4, 5, 7, 8) have their total score inverted, as follows: 1=4, 2=3, 3=2, 4=1, 5=0. Remaining questions are negative and should be added directly. Total scale is the sum of the scores of these 10 questions. Scores may vary from zero to 40 and the higher the score, the higher the stress.

Statistical analysis

Data were stored and organized in Excel for Windows Office (2007) electronic spreadsheet and then electronically analyzed by descriptive statistics with statistical software SPSS®, version 17.0.

The study complied with formal requirements of national and international regulating standards for research with human beings. The project was approved by the Ethics Committee, UNIJUI, Consubstantiate opinion 427.613/2014.

RESULTS

Postpartum women participating in the study had mean age of 25.55±6.36 years, varying from 18 to 39 years or above. More than half of them (52.5%) were aged between 18 to 25 years. With regard to education level, complete high school (32.5%) and incomplete basic education (25.0%) have predominated. As to marital status, 52.5% of patients were in stable union and 32.5% were married. Predominant dwelling place was the city where the studied hospital is located (82.5%) (Table 1).

Clinical data of studied patients have shown that 40.0% had previous gestation and 37.5% no previous gestation. As to the

Table 1. Socioeconomic and demographic characteristics of post vaginal delivery women of an Obstetric Unit of the Northwest Region of Rio Grande do Sul, 2014

Characteristics	n	%
Age (years)	21	52.5
18 |--- 25	13	32.5
25 |--- 32	5	12.5
32 |--- 39	1	2.5
39 or above		
Mean ± SD (Minimum; Maximum)	25.55±6.36 (18;46)	
Education level		
Incomplete basic education	10	25.0
Complete basic education	8	20.0
Incomplete high school	8	20.0
Complete high school	13	32.5
Graduation	1	2.5
Marital status	21	52.5
Stable union	13	32.5
Married	6	15.0
Single		

Table 2. Clinical data of post vaginal delivery women of an Obstetric Unit of the Northwest Region of Rio Grande do Sul, 2014

Clinical data	n	%
Number of previous gestations		
None	15	37.5
One	16	40.0
Two	5	12.5
Three	1	2.5
More than four	3	7.5
Previous vaginal deliveries		
One	16	64.0
Two	3	12.0
More than three	3	12.0
Previous C-sections		
One	3	12.00
Gestational weeks		
Below 36	5	12.5
37 to 42	35	87.5
Attended to prenatal program		
Yes	40	100.0
Where (Single Health System)	34	85.0
Others	6	15.0

number of previous vaginal deliveries and C-sections, 64.0% had vaginal delivery and 12.0% C-section. With regard to gestational weeks at delivery, 87.5% had term gestation (37 to 42 weeks). All patients attended the prenatal program and 85.0% of them did it though the Single Health System (SUS) (Table 2).

Pain Intensity Evaluation with McGill Pain Questionnaire short-form has shown that 35.0% had mild pain, 27.5% severe pain and 22.5% moderate pain. In global pain experience evaluation, 40.0% had uncomfortable pain, 30.0% no pain and 25.0% mild pain. Global pain intensity evaluation had identical results as pain intensity evaluation (Table 3).

As to pain estimate indices, "Sensory" pain index had mean of 6.60 and "Affective" pain index 1.55 (Table 4).

With regard to perceived Stress Scale (PSS-10), patients were encouraged to reflect about their last 30 days before answering the 10 questions of it, aware of the proportion of scores and stress level. Questions number 3 (were you nervous or stressed), number 6 (did you think you would be unable to deal with all the things you had to do) and number 9 (were you angry due to things beyond your control), all negative, had the highest means: (2.78), (2.10) and (2.50), respectively (Table 5).

Table 3. Pain intensity evaluation of post vaginal delivery women of an Obstetric Unit of the Northwest Region of Rio Grande do Sul, 2014

Tools	Intensity	n	%
PPI	No pain	6	15.0
	Mild pain	14	35.0
	Moderate pain	9	22.5
	Severe pain	11	27.5
GPE	No pain	12	30.0
	Mild	10	25.0
	Uncomfortable	16	40.0
	Afflictive	1	2.5
	Horrible	1	2.5
	Tormenting	0	0
PPI-VAS	No pain	6	15.0
	Mild pain	14	35.0
	Moderate pain	9	22.5
	Severe pain	11	27.5
Total		40	100.0

PPI = Present pain intensity; GPE = Global pain experience; PPI-VAS = Global pain experience by visual analog scale.

Table 4. Descriptive statistics of pain evaluation indices of post vaginal delivery women of an Obstetric Unit of the Northwest Region of Rio Grande do Sul, 2014

Pain estimate indices	lL	uL	Mean	Standard deviation	Variation coefficient (%)
Sensory	0	19	6.60	4.49	68.09
Affective	0	7	1.55	1.91	123.03
Total	0	19	8.15	5.44	66.77

Score: Sensory Pain Estimate Indices (from 0-33 points); Affective Pain Estimate Indices (from 0-12 points); Evaluating Pain Estimate Indices (from 0-45 points), lL = lower limit; uL = upper limit.

Table 5. Descriptive measures of Perceived Stress Scale of post vaginal delivery women of an Obstetric Unit of the Northwest Region of Rio Grande do Sul, 2014

Frequency (considered the last 30 days)	Mean	Standard deviation	VC (%)
1- Were you annoyed due to something unexpected	1.83	1.28	70.07
2- Did you feel yourself unable to control important things in your life	1.43	1.28	89.74
3- Were you nervous or stressed	2.78	1.31	47.22
4- Were you confident in your ability to deal with your personal problems	1.50	1.36	90.58
5- Have you felt that things have happened as you expected	1.78	1.44	81.18
6- Did you think you would be unable o deal with all the things you had to do	2.10	1.22	57.87
7- Were you able to control exasperation in your life	1.73	1.30	75.40
8- Have you felt that all aspects of your life were under control	1.50	1.18	78.45
9- Were you angry due to things beyond your control	2.50	1.60	64.05
10- Have you felt that problems had accumulated so much that you could not solve them	1.55	1.58	102.22

Scores: 0 = Never; 1 = Almost Never; 2 = Sometimes; 3 = Seldom; 4 = Very frequent. Reverse scores: questions 4, 5, 7, 8; VC = variation coefficient.

DISCUSSION

With regard to post partum women participating in the study, it was observed that highest index was of young women, with complete high school and stable marital status. This result was compatible with Leite et al.[11] who have found the highest percentage of young post partum women (54%), with complete high school (32.8%), married or living with partner (83.6%). This situation portrays lower obstetric risks since more favorable socioeconomic conditions and safe marital status provide emotional and economic support for women[12].

As from obstetric data, it was observed that most women were in their second (40.0%) and first gestation (37.0%) and had their babies at 38 weeks gestation (27.5%). Study in a city to the North of the State of Rio Grande do Sul on the epidemiological profile of postpartum women and neonates, has shown that most women (94.6%) had their babies at 37 to 42 weeks[13], period considered as term birth, results which are in line with our study.

As to pain intensity evaluation, higher frequency of moderate to severe pain was also compatible with results of other authors[14]. In the meantime, pain of most women is sensory, since in the postpartum period pain might be caused by physiological and anatomic changes especially in abdominal, perineal, muscular, joint, mammary and nipples regions, upper limbs and dorsal region[15], in addition to pain and discomfort elicited by procedures such as episiotomy.

Episiotomy, due to scientific evidences and already pointed by WHO since 1996, should not be a routine procedure, however it is very frequent. In a recent study, author brings in his results that most postpartum women submitted to episiotomy have reported it as a major cause of postpartum pain[16], which gives it a negative evaluation and could be considered a stressing factor.

With regard to PSS-10 results, it is understood that these stress levels might be related to situations lived by patients before delivery. Delivery is seen as something following the whole gestation and postpartum process and during this period women have many expectations. So, after birth, there might be memories and feelings which are not always pleasant [8].

The last 30 days considered by patients to answer PSS-10 questions may be a period in which daily life events are more intensely perceived than if they were not pregnant, explained by changes caused by this moment where further contact with baby birth and mother's reality is identified. Health professionals and family and social networks should consider these psychoemotional changes and develop adequate patient's support and care.

In this context, obstetric hospital unit should give continuity to postpartum women care by preparing basic health attention teams. For such, it is necessary that, at hospital discharge, the maternity get in touch with the basic attention team with which mother and baby have bonds, to communicate their return home[12].

The recognition by nurses of changes present in postpartum women should be the core dimension to build a line of integral attention to women, where qualified listening, interest to women and their families and evidence-based care are critical aspects allied to pain and stress evaluation.

CONCLUSION

Postpartum women participating in this study have referred pain and experienced stress after vaginal delivery.

Prenatal follow-up by nurses qualifies the assistance and is the moment when women's questions are answered, pain and stress are evaluated, care is provided, stressors and postpartum depression, in addition to relaxation methods during labor are explained, among other aspects.

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