ORIGINAL ARTICLE

From prenatal care to childbirth: a cross-sectional study on the influence of a companion on good obstetric practices in the Brazilian National Health System in Santa Catarina State, 2019*

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Abstract

Objective: To analyze association between presence of a companion during prenatal consultations and childbirth and quality of care received by puerperal women using the Brazilian National Health System (SUS). **Methods:** This was a cross-sectional study with puerperal women who underwent prenatal care and delivery on the SUS in Santa Catarina State, Brazil, in 2019, and who were interviewed within 48 hours postpartum. Prevalence ratios were estimated using Poisson regression. **Results:** 3,580 puerperal women were interviewed. In prenatal care, presence of a companion was positively associated with receiving guidance from health professionals (PR=1.27 – 95%CI 1.08;1.50) and building a birth plan (PR=1.51 – 95%CI 1.15;1.97). At delivery, presence of a companion was associated with greater receipt of analgesics (PR=2.89 – 95%CI 1.40;5.97), non-pharmacological pain relief management (PR=1.96 – 95%CI 1.44;2.65), choice of position for delivery (PR=1.63 – 95%CI 1.24;2.16) and less likelihood of being strapped down (PR=0.47 – 95%CI 0.35;0.63). **Conclusion:** Presence of a companion during prenatal care and delivery was associated with better quality of care.

Keywords: Prenatal Care; Humanized Childbirth; Brazilian National Health System; Patient Rights; Women's Health; Cross-Sectional Studies.

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Introduction

Provision of quality and humanized health care during pregnancy and the puerperal period is essential when the intention is to obtain good clinical results for the mother and the newborn baby. It is associated with lower morbidity and mortality and with non-occurrence of unnecessary medical interventions, as well as having positive effects on labor and on women having sensation and feeling of control.[1,2]

> *Presence of a companion during pregnancy and the puerperal period transmits greater security to the mother, in addition to contributing to better maternal and neonatal outcomes.*

One of the actions aimed at contributing to improved health care during pregnancy and childbirth, and which has been the object of legal and infra-legal reinforcement through norms and guidelines, is the presence of companions alongside pregnant and parturient women in health services. Presence of a companion during pregnancy and the puerperal period transmits greater security to the mother, in addition to contributing to better maternal and neonatal outcomes.[2]

The World Health Organization (WHO) recommends the presence of a companion freely chosen by the pregnant woman as one of the actions of good delivery and childbirth practices, with the aim of reducing unnecessary interventions and obstetric violence.[3]

Considering this recommendation and its importance, presence of a companion chosen by the pregnant woman during labor, childbirth and the immediate postpartum period, was regulated in Brazil by Law No. 11,108, dated April 7th 2005. This measure was reaffirmed by Ministry of Health Ordinance No. 1,459, dated June 24th 2011, which set up the *Rede Cegonha* (Stork Network) within the Brazilian National Health System (SUS) with the aim of ensuring safe labor and childbirth for mothers and their newborn children, through the presence of a companion freely chosen by them.[4,5]

In addition to accompaniment at the time of childbirth, as fundamental strategies for qualifying care for mothers and fetuses, *Rede Cegonha* provides for guidance on the right to a companion during the entire cycle of pregnancy and the puerperal period – which includes the prenatal period.[2] Prenatal care sessions with the presence of a companion represent a moment of strengthening links between the health team, the pregnant woman and her companion, in addition to representing an opportunity for preparing for labor and childbirth. It has also been found that a companion being present during prenatal care is a predictive factor for the pregnant woman also being accompanied during childbirth, indicating the importance of encouraging and enabling accompaniment right from the start of care and not only at the moment of childbirth.[6]

Despite Brazil showing an increase in the proportion of pregnant women having at least seven prenatal care sessions and childbirth assisted by health professionals, the need still exists to enhance the quality of prenatal care and care during and after childbirth.[7,8] Presence of companions during pregnancy and the puerperal period, in addition to being a safe and low-cost intervention, can also improve the quality of care provided to mothers and their children.[6,9]

Studies analyzing association between prenatal accompaniment and care practices are scarce.[10] Qualitative investigations or investigations into the experience and its assessment by companions or health services are predominant.[11-13] Quantitative studies with representative samples are not available. Population-based studies, when analyzing association of presence of a companion during and after childbirth with obstetric outcomes, have demonstrated a positive relationship between accompaniment, good care practices and satisfactory clinical outcomes, although such studies are equally scarce.[2,9]

The objective of this study was to analyze association of presence of a companion during prenatal care and childbirth with quality of care received by pregnant women using the SUS.

Methods

A cross-sectional study was conducted, the observed population of which were puerperal women with children born in hospitals in Santa Catarina State

in 2019, regardless of age. Santa Catarina is located in Southern Brazil and its estimated population in 2019 was 7,164,788 inhabitants, distributed over 295 municipalities (https://www.ibge.gov.br/cidades-e-estados/sc.html). Also in 2019, 97,589 children were born alive in Santa Catarina, 57.20% of whom were delivered via cesarean section (http://200.19.223.105/cgi-bin/tabnet?sinasc/def/sinasc.def).

The criteria for inclusion in the study were: having lived in Santa Catarina throughout the entire gestational period; having attended all prenatal care sessions (whether normal-risk pregnancy or high-risk pregnancy) at public health services; having given birth in a Santa Catarina hospital in which more than 500 childbirths had been performed via SUS in 2016; and child liveborn, stillborn or dying within 48 hours postpartum, weighing more than 500g and having at least 22 weeks gestation.

Consequently, the study included all 31 Santa Catarina hospitals that performed 500 or more childbirths via SUS in 2016, distributed over 30 different municipalities. Together, those hospitals accounted for 86.2% of all SUS-funded births in Santa Catarina that year. As such the total estimated sample size was 3,665 puerperal women, In order to determine the final sample size, we considered a 95% confidence interval, a 1.6 percentage point margin of error, population size of 50,000 inhab. and 50% prevalence expected for the phenomenon. A further 5% was added to compensate for losses and refusals. The definition of the number of interviews to be carried out at each hospital followed the proportional distribution of births observed in 2016.

In order to collect the data, closed questionnaires were administered face to face with the puerperal women in the hospitals within 48 hours postpartum using tablets and recording the data on the Research Eletronic Data Capture (REDCap) platform. Field logistics were tested by means of a pilot study with 5% of the sample. A total of 30 graduate or undergraduate interviewers with experience in the area of Health were trained and took part in data collection. For the purposes of quality control, a random sample of 10% of the interviewees were interviewed by telephone. When analyzing the quality control variables, good or almost perfect agreement was found: six of the eight variables analyzed had a Cohen's Kappa agreement coefficient above 0.680.

The outcome variables were related to two moments in the period of pregnancy: prenatal and childbirth. With regard to prenatal care, we analyzed the building of a birth plan jointly with a health professional and receipt by each pregnant woman of at least one item of guidance recommended by the Ministry of Health in its Primary Health Care Booklet No. 32, about Low-Risk Prenatal Care, namely: (i) the importance of exclusive breastfeeding the baby up to 6 months old, (ii) how to position the baby for breastfeeding, (iii) the importance of practicing physical activities during pregnancy, (iv) risks of taking medication during pregnancy, (v) risks of drinking alcohol during pregnancy, (vi) risks of smoking tobacco during pregnancy, (vii) signs of risk for which medical care should be sought, (viii) signs of labor starting, (ix) what can be done during labor to facilitate birth, (x) possibility of the presence of a companion during childbirth and postpartum and (xi) possibility of visiting the maternity hospital during the prenatal period.[14]

With regard to childbirth, the following outcomes were analyzed, (i) breastfeeding during the baby's first hour of life, (ii) the act of being strapped down during labor; and, for cases of vaginal delivery, (iii) performance of episiotomy, (iv) possibility of choosing childbirth position, (v) receipt of non-pharmacological pain relief management (shower, ball and massage) and (vi) analgesics.

All information was dichotomous (yes or no) and self-reported by each woman.

The explanatory variable of main interest was presence of a companion during prenatal care sessions, whether during the majority of some of those sessions (yes or no), and during childbirth (yes or no). The adjustment variables were age range (in years: 13-19; 20-35; 36-46), living with a partner (yes or no), planned pregnancy (yes or no), self-reported race/skin color (white, black or brown; Indigenous and Asian race/skin color were not analyzed because of the low number of interviews), years of study (≥13; 10-12; ≤9), income *per capita* (in BRL [R$], categorized in tertiles) and number of prenatal care sessions (1-3; 4-6; 7 or more).

In the statistical analysis, we initially calculated sample distribution and outcome prevalence according to presence or not of a companion during prenatal care and childbirth, with their respective 95% confidence intervals (95%CI). We then calculated the

prevalence ratio (PR) for presence of a companion during prenatal care and childbirth, using Poisson regression in both the crude and the adjusted models, whereby the measurements were reported along with their respective 95%CI. All the analyses were performed using Stata 15.1 software.

The research project was approved by the Federal University of Santa Catarina Human Research Ethics Committee on June 20th 2016 – Opinion No. 1.599.464 –, and fully followed the ethical principles contained in National Health Council Resolution No. 466, dated December 12th 2012. Puerperal women who agreed to take part in the study digitally signed a Free and Informed Consent form, using the researcher's tablet, and received a printed copy of their consent when they were interviewed.

Results

A total of 3,580 puerperal women were interviewed after 85 refusals (response rate: 97.7%). It was noted that 13.4% were adolescents, two-thirds self-reported their race/skin color as White, four-fifths lived with a partner, 40% had planned their pregnancy and 65.5% had completed middle school education (Table 1). Vaginal delivery accounted for 57.2% of births and four-fifths of the women had attended seven or more prenatal care sessions.

Only 17.5% of the puerperal women had received from health professionals all recommended prenatal guidance (Table 2). Most frequent guidance related to the possibility of visiting the maternity hospital in the prenatal period (40.3%), how to position the baby for breastfeeding (46.6%) and what can be done during labor to facilitate birth (52.0%). Standing out among most common guidance were signs of risk during pregnancy for which medical care should be sought (80.5%), risk of taking medication (77.2%), smoking (75.6%) and drinking alcohol (75.0%) during pregnancy. Only one out of every 13 puerperal women reported preparing a birth plan with a health professional during prenatal care. For all outcomes, prevalence of women receiving guidance was greater when they had a companion with them in the care sessions.

With regard to childbirth, 71.2% of the puerperal women were found to have breastfed in the first hour after the baby was born and 9% were strapped down during childbirth (Table 3). When analyzing women who had vaginal delivery, episiotomy was performed on 14.3% of them and 49.0% were able to choose the position in which they gave birth. Analgesics were administered to only 18.4% of the parturient women, while 52.7% had some form of non-pharmacological pain relief management, with access to shower washing being the most common (48.7%). All positive outcomes for mother and baby were more frequent among mothers who had a companion present at childbirth.

Table 4 shows the crude and adjusted prevalence ratio for each item of guidance and for preparation of a birth plan, whether a companion was present or not at the prenatal care sessions. With the exception of care regarding use of alcohol and tobacco and signs of risk signs, in the adjusted models it was found that presence of a companion was associated with better outcomes. Among puerperal women who had a companion present at their prenatal care sessions, prevalence of receiving all Ministry of Health recommended guidance was 27% greater, while prevalence was 51% greater with regard to a birth plan being prepared together with the health professional who provided prenatal care.

When analyzing child birth and postpartum, better outcomes were found for both crude and adjusted prevalence ratios in the case of puerperal women who had a companion present (Table 5). Prevalence of breastfeeding during the first hour of life was 11% higher among those with a companion present. On the other hand, it was found that prevalence of reporting being strapped down during childbirth was 2.13 times greater among puerperal women with no companion present. Among puerperal women who had vaginal delivery, prevalence of receiving non-pharmacological pain relief management, receiving analgesics and being able to choose the childbirth position was, respectively, 96%, 189% and 63% greater among puerperal women who had a companion present.

Discussion

Six in every ten puerperal women had a companion present during their prenatal care sessions; and nine in every ten during childbirth. Accompanied puerperal women were more likely to receive from health professionals all the prenatal guidance analyzed here, as well as being more likely to build a birth plan with

Table 1 – Distribution of the sample of puerperal women having prenatal care and childbirth on the Brazilian National Health System (n=3,580), Santa Catarina State, 2019

Variable	n (%)
Age range (years) (n=3,524)	
13-19	472 (13.4)
20-35	2,653 (75.3)
36-46	399 (11.3)
Lives with a partner (n=3,559)	
Yes	2,864 (80.5)
No	695 (19.5)
Planned pregnancy (n=3,551)	
Yes	1,421 (40.0)
No	2,130 (60.0)
Race/skin color (n=3,476)	
White	2,205 (63.4)
Black	330 (9.5)
Brown	941 (27.1)
Schooling (years of study) (n=3,476)	
≥13	458 (13.0)
10-12	1,853 (52.5)
≤9	1,218 (34.5)
Income per capita (n=3,395)	
Wealthiest tertile	1,114 (32.8)
Intermediate tertile	1,147 (33.8)
Poorest tertile	1,134 (33.4)
Number of prenatal care sessions (n=3,428)	
1-3	88 (2.6)
4-6	606 (17.7)
7 or more	2,734 (79.7)
Type of delivery (n=3,574)	
Vaginal	2,044 (57.2)
Cesarean	1,530 (42.8)
Accompanied during prenatal care sessions (n=3,514)	
Yes	2,143 (61.0)
No	1,371 (39.0)
Accompanied during childbirth and postpartum (n=3,573)	
Yes	3,254 (91.1)
No	319 (8.9)

Table 2 – Distribution of the sample of women having prenatal care and childbirth on the Brazilian National Health System (n=3,580) and percentage that received guidance and prepared a birth plan, according to presence or not of a companion during prenatal care, Santa Catarina State, 2019

Guidance during prenatal care and preparation of birth plan	Total		Presence of companion during prenatal care			
			Yes		No	
	n	% (95%CI[a])	n	% (95%CI[a])	n	% (95%CI[a])
Pregnant woman received guidance about						
Importance of exclusive breastfeeding up to 6 months old	2,181	61.9 (60.3;63.5)	1,361	64.1 (62.0;66.1)	792	58.4 (55.8;61.0)
How to position the baby for breastfeeding	1,636	46.6 (44.9;48.2)	1,021	48.3 (46.2;50.4)	591	43.7 (41.0;46.3)
Importance of physical activity	2,109	60.1 (58.4;61.7)	1,324	62.6 (60.5;64.7)	756	55.9 (53.2;58.5)
Risks of taking medication during pregnancy	2,722	77.2 (75.7;78.5)	1,676	78.9 (77.1;80.6)	1,010	74.3 (71.9;76.6)
Risks of drinking alcohol during pregnancy	2,642	75.0 (73.5;76.4)	1,065	75.7 (73.8;77.5)	1,001	73.7 (71.3;76.0)
Risks of smoking tobacco during pregnancy	2,663	75.6 (74.1;77.0)	1,624	76.6 (74.8;78.4)	1,002	73.7 (71.3;76.0)
Signs of risk during pregnancy for which medical care should be sought	2,831	80.5 (79.1;81.7)	1,731	81.6 (80.0;83.2)	1,066	78.7 (76.5;80.8)
Signs of labor starting	2,255	64.0 (62.4;65.6)	1,408	66.4 (64.4;68.4)	816	60.2 (57.5;62.8)
What can be done during labor to facilitate birth	1,828	52.0 (50.3;53.6)	1,144	54.1 (52.0;56.2)	654	48.2 (45.6;50.9)
Possibility of having a companion at childbirth	2,312	65.5 (63.9;67.0)	1,446	68.0 (66.0;70.0)	832	61.2 (58.6;63.8)
Possibility of visiting the maternity hospital during the prenatal period	1,421	40.3 (38.7;41.9)	899	42.3 (40.3;44.5)	499	36.7 (34.2;39.3)
Received all the recommendations above	616	17.5 (16.3;18.8)	398	18.8 (17.2;20.6)	207	15.2 (13.4;17.2)
Prepared a birth plan with a health professional	261	7.4 (6.6;8.3)	179	8.5 (7.4;9.8)	78	5.8 (4.7;7.2)

a) 95%CI: 95% confidence interval.

those health professionals. Being accompanied at childbirth was also associated with higher prevalence of good care practices, such as breastfeeding in the first hour of life, choice of childbirth position, not being strapped down, being submitted to non-pharmacological procedures and receiving analgesics for pain relief.

The results of this study corroborate those of other studies that have pointed to the importance of a companion being present right from prenatal care, with positive effects on women's attitudes, feelings and perceptions regarding pregnancy, as well as better experiences with regard to childbirth and postpartum. Those who are able to count on the presence of a companion during prenatal care are also those who will have greater possibility of having a companion present during labor and childbirth.[6,13,15] However, presence of a companion during prenatal care is subject to limitations, possibly caused by maternal family factors and/or institutional factors. This occurs above all because this practice is still not consolidated in all institutions or in people's minds and, therefore, should be reviewed in the sense of the companion being freely chosen by the pregnant woman, and not tied to other conditioning factors that may be present.[3]

A companion being present during the childbirth process has contributed to attenuate social inequalities in health care and improve women's perception of care received.[2,15] Pregnant women generally arrive at maternity hospitals accompanied upon admission; however, gradual separation can be observed, depending on the evolution of the stages of the parturition process, and this may be related to companions not being included in the hospital routine.[16] In order for pregnant/parturient women to have access to continuous support from their companions, companions need to receive information, be included in health education activities performed in groups and included in prenatal care sessions.[17] Despite this, national studies on data from the *Nascer no Brasil* (Being Born in Brazil) survey (2011/2012), demonstrated that 24.5% of women did not have a

Table 3 – Distribution of the sample of puerperal women having prenatal care and childbirth on the Brazilian National Health System (n=3,580) and prevalence of obstetric practices performed during childbirth, according to presence or not of a companion, Santa Catarina State, 2019

Obstetric practices during childbirth	Total		Presence of companion at childbirth			
			Yes		No	
	n	% (95%CI[a])	n	% (95%CI[a])	n	% (95%CI[a])
Breastfed during the first hour of life	2,394	71.2 (69.7;72.7)	2,206	71.8 (70.2;73.4)	187	64.9 (59.2;70.2)
Was strapped down during childbirth	300	9.2 (8.2;10.2)	248	8.3 (7.4;9.4)	52	18.5 (14.4;23.5)
Episiotomy performed[b]	286	14.3 (12.8;15.9)	267	14.3 (12.8;16.0)	19	14.5 (9.4;21.7)
Able to choose position[b]	1,017	49.0 (46.8;51.2)	929	50.1 (47.8;52.4)	88	32.3 (24.8;40.9)
Received NPM[c] to relieve pain[b]	1,066	52.7 (50.5;54.9)	1,033	54.7 (52.5;57.0)	33	24.4 (17.9;32.5)
Shower	984	48.7 (46.5;50.9)	957	50.8 (48.5;53.0)	27	20.0 (14.0;27.7)
Ball	694	34.3 (32.3;36.4)	678	35.9 (33.8;38.1)	16	11.9 (7.4;18.7)
Massage	498	24.6 (22.8;26.6)	484	25.7 (23.8;27.7)	14	10.4 (6.2;16.8)
Analgesic[b]	371	18.4 (16.8;20.2)	363	19.3 (17.6;21.2)	8	5.9 (3.0;11.5)

a) 95%CI: 95% confidence interval.
b) Only for women having vaginal childbirth.
c) NPM: non-pharmacological pain management.

Table 4 – Association between receipt of guidance during prenatal care and preparation of birth plan with presence of a companion during prenatal care, among the sample of puerperal women having prenatal care and childbirth on the Brazilian National Health System (n=3,580), Santa Catarina State, 2019

Guidance during prenatal care and preparation of birth plan	Crude PR[a] (95%CI[b])	p-value[c]	Adjusted[d] PR[a] (95%CI[b])	p-value[c]
Pregnant woman received guidance about				
Importance of exclusive breastfeeding up to 6 months old	1.10 (1.04;1.16)	0.001	1.12 (1.05;1.18)	<0.001
How to position the baby for breastfeeding	1.10 (1.03;1.19)	0.009	1.15 (1.06;1.24)	0.001
Importance of physical activity	1.12 (1.06;1.19)	<0.001	1.11 (1.04;1.18)	0.001
Risks of taking medication during pregnancy	1.06 (1.02;1.10)	0.002	1.05 (1.01;1.10)	0.011
Risks of drinking alcohol during pregnancy	1.03 (0.99;1.07)	0.189	1.02 (0.97;1.06)	0.447
Risks of smoking tobacco during pregnancy	1.04 (1.00;1.08)	0.058	1.02 (0.98;1.07)	0.264
Signs of risk during pregnancy for which medical care should be sought	1.04 (1.00;1.07)	0.037	1.03 (0.99;1.06)	0.159
Signs of labor starting	1.10 (1.05;1.16)	<0.001	1.10 (1.04;1.16)	0.001
What can be done during labor to facilitate birth	1.12 (1.05;1.20)	0.001	1.11 (1.04;1.20)	0.003
Possibility of having a companion at childbirth	1.11 (1.06;1.17)	<0.001	1.11 (1.05;1.17)	<0.001
Possibility of visiting the maternity hospital during the prenatal period	1.15 (1.06;1.26)	0.001	1.14 (1.04;1.25)	0.004
Received all the recommendations above	1.24 (1.06;1.44)	0.006	1.27 (1.08;1.50)	0.003
Prepared a birth plan with a health professional	1.47 (1.13;1.89)	0.004	1.51 (1.15;1.97)	0.003

a) PR: prevalence ratio.
b) 95%CI: 95% confidence interval.
c) Wald test.
d) Analyses adjusted for age range, living with a partner, planned pregnancy, self-reported race/skin color, years of study, income *per capita* and number of consultations.

Table 5 – Association between obstetric practices performed during childbirth and presence of a companion, among the sample of puerperal women having prenatal care and childbirth on the Brazilian National Health System (n=3,580), Santa Catarina State, 2019

Obstetric practices during childbirth	Crude PR[a] (95%CI[b])	p-value	Adjusted[d] PR[a] (95%CI[b])	p-value[c]
Breastfed during the first hour of life	1.11 (1.01;1.21)	0.024	1.11 (1.02;1.22)	0.022
Was strapped down during childbirth	0.45 (0.34;0.49)	<0.001	0.47 (0.35;0.63)	<0.001
Episiotomy performed[e]	1.00 (0.93;1.08)	0.947	1.02 (0.94;1.10)	0.631
Able to choose position[e]	1.55 (1.20;2.00)	0.001	1.63 (1.24;2.16)	0.001
Received NPM[f] to relieve pain[e]	2.24 (1.66;3.02)	<0.001	1.96 (1.44;2.65)	<0.001
Shower	2.54 (1.81;3.57)	<0.001	2.22 (1.56;3.13)	<0.001
Ball	3.01 (1.89;4.79)	<0.001	2.63 (1.63;4.25)	<0.001
Massage	2.48 (1.50;4.09)	<0.001	2.05 (1.21;3.46)	0.007
Analgesic[e]	3.26 (1.65;6.42)	0.001	2.89 (1.40;5.97)	0.004

a) PR: prevalence ratio.
b) 95%CI: 95% confidence interval.
c) Wald test.
d) Analyses adjusted for age range, living with a partner, planned pregnancy, self-reported race/skin color, years of study, income *per capita* and number of consultations.
e) Only for women having vaginal childbirth.
f) NPM: non-pharmacological pain management.

companion present during childbirth – this being 2.7 times greater than the prevalence found in this study – and only 19.3% had a companion present at all times during hospitalization.[2,18] Those results demonstrate the heterogeneity of care practices in Brazil. While recognizing progress, albeit slow, with the presence of companions, the most recent national data show that part of the women receiving care still do not have the support of a companion during labor and childbirth, despite this being guaranteed by law.

In the analysis of receipt of guidance during prenatal care, we found low frequency of health professionals providing guidance on the possibility of pregnant women visiting the maternity hospital where they will give birth. A national study on prenatal and childbirth care, also based on the 2011/2012 *Nascer no Brasil* survey, reinforces the importance of this guidance and other recommended forms of guidance: women who are informed during prenatal care and who are linked to the maternity hospital during this period can be more likely to have a companion present during their entire hospitalization for childbirth.[19] These guidelines became highlighted with effect from the implementation of the *Rede Cegonha* network, with the aim of linking pregnant women to the maternity hospital where they will give birth, avoiding access difficulties and making care more agile. During this process, companions should also receive information on the provisions of the law and guidance on making this link, so as to contribute positively to access to these services.

Guidance on exclusive breastfeeding up until 6 months of age was given to more than half the puerperal women in this study, and having a companion present during prenatal care was associated with greater odds of receiving this guidance. This finding demonstrates low prevalence when compared to the 91.0% prevalence reported for this guidance in Brazil as a whole, according to a national study the object of which was to evaluate the quality of prenatal care in Brazil using data from the 2012/2013 National Program for Primary Health Care Access and Quality Improvement. Only 46.6% of the women interviewed reported receiving guidance on positioning their baby for breast feeding.[20] Topics regarding breastfeeding should be more present in prenatal care, in view of the importance of breastfeeding for strengthening the bond between mother and baby and the child's growth and development.[20]

Companions who take part in prenatal care sessions can offer greater support to mothers during the breastfeeding process, so as to contribute to their

satisfaction with this event and their continuing to breastfeed. As indicated by a study conducted in the Federal District, prevalence of breastfeeding in the first hour of life among women who had a companion present during childbirth was greater than 70,0% – 11.0% higher than among those who did not have a companion present during childbirth.[21]

Greater prevalence ratio magnitude was found in the outcome relating to preparation of a birth plan. This practice was more common among puerperal women who had a companion present during prenatal care. Birth plans are built with the aid of the health professional who provides prenatal care. It is an educational instrument of a legal nature, developed during pregnancy, according to the clinical condition of the pregnant woman and the reality of the health service, with the aim of promoting reflection and assisting the pregnant women with making decisions about childbirth and the procedures to be performed.[22,23] Recommended by the WHO, and also by the Ministry of Health following implementation of the *Rede Cegonha* network, the birth plan favors female empowerment, promotes greater satisfaction with child delivery and better maternal/neonatal results; using the birth plan in health services and building it during prenatal care contributes to the quality of mother and child care provided.[23]

This study demonstrated that the presence of a companion during labor was associated with provision of non-pharmacological pain relief management. This result was also indicated by a study conducted in three public maternity hospitals in the municipality of Niterói, RJ, which found greater occurrence of massaging, bathing, breathing and movement techniques among parturient women accompanied by companions they had chosen freely.[16]

Good labor and childbirth practices provide guidance on what should or should not be done during the childbirth process. Practices identified as obstetric violence are discouraged. This type of violence can be expressed verbally, physically, through inadequate use of technologies, interventions and unnecessary procedures, and may also unleash physical and psychological sequelae.[24] Having been strapped down during childbirth was reported by approximately one in ten of the puerperal women interviewed, but was less prevalent among women who had a companion present, thus demonstrating the importance of a woman being accompanied at this very delicate time by someone freely chosen by her, for her greater security, protection and assistance with decision making. Even though at times strapping down a woman's arms or legs may be justified by the aim of preventing contamination of the surgical field, it is unnecessary and characterizes obstetric violence. It should also not be practiced because, among other factors, it violates women's autonomy and well-being and compromises their ability to hold their newborn child in their arms.[25]

Approximately half the puerperal women who had vaginal delivery were able to choose the position for childbirth, whereas only a third who did not have a companion present were able to exercise this autonomy. A study conducted in São Paulo City did not identify among health professionals the practice of offering parturient women the possibility of using different positions to give birth, but rather they adopted the lithotomy position (a gynecological position, lying on one's back with the hips and knees flexed and thighs apart) as a standard position, because it facilitates access to the birth canal and interventions being performed; and because they presumed it was the position women preferred.[26] A qualitative study conducted in a teaching hospital in Santa Catarina State, analyzed the perception of puerperal women of giving birth in a vertical or horizontal position and concluded that women considered the vertical position to be more positive because it favors movement, is more adequate for pushing and expelling the fetus, in addition to enabling them to have greater participation in childbirth.[27] In this context, it should be noted that knowledge about childbirth should be imparted from the beginning of prenatal care and, when it is reinforced throughout pregnancy up until delivery, it can provide pregnant women and their companions with empowerment and autonomy fitting for parturition, positively influencing the way in which they all experience the accomplishment of pregnancy.

Standing out as a limitation of this study is the fact of the interviews having been conducted within 48 hours postpartum, while the puerperal women were still in hospital. This data collection condition may generate courtesy bias and thus influence answers regarding care practices during childbirth; another possible limitation lies in the fact of the information about guidance received being self-reported and subject to recall bias. Moreover, the information about

having a companion present refers to this presence in general, without specifying the prenatal and postnatal periods or childbirth itself, which may have caused the results of the study to be overestimated.

Presence of a companion at childbirth is recognized as good obstetric practice and is a right guaranteed by law, although the law does not specify the right to have a companion during prenatal care sessions. Despite the limitations taken into consideration, this study reached the conclusion that adopting this practice can contribute to better care during pregnancy, in addition to contributing to ensuring breastfeeding within the baby's first hour of life. There is however little mobilization on the part of society – corporations, governments and health services – to encourage and make feasible the presence of companions during prenatal care as well. This point needs to be considered, more strongly and consistently, and adopted on the agenda of care to be provided to pregnant women and babies in Brazil.

Finally, this study found that the presence of a companion during prenatal care sessions and during childbirth is associated with better quality of care received by women using the Brazilian National Health System in Santa Catarina State. The findings of this study contribute to a more in-depth reflection on health care practice and the importance of health services being disposed to encourage and facilitate the participation of companions, as well as to evaluate, in their routines, the reasons why women who have companions present are more likely to receive better health care.

Authors' contributions

Tomasi YT, Saraiva SS, Boing AF and Boing AC contributed to the study concept and design, data analysis and interpretation and drafting the first version of the manuscript. Delziovo CR and Wagner KJP contributed to data analysis and interpretation and critically reviewing the manuscript. All the authors have approved the final version of the manuscript and are responsible for all aspects thereof, including the guarantee of its accuracy and integrity.

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