

CARE TRANSITION IN THE HIGH-RISK PUERPERIUM: A MIXED METHODS STUDY

Denise Casagrande¹ 

Ane Gabriele Poli Petersen¹ 

Manuel Portela Romero² 

Caroline Sissy Tronco³ 

Amanda Caroline Mélo da Rosa¹ 

Cristina Thum⁴ 

Adriane Cristina Bernat Kolankiewicz¹ 

¹Universidade Regional do Noroeste do Estado do Rio Grande do Sul, Programa de Pós-Graduação Atenção Integral à Saúde. Ijuí, Rio Grande do Sul, Brasil.

²Universidade de Santiago de Compostela, Departamento de Psiquiatria, Radiologia, Salud Pública, Enfermería y Medicina. Santiago de Compostela, Coruña, Espanha.

³Instituto Federal Farroupilha, Núcleo Saúde e Segurança do Trabalho. Panambi, Rio Grande do Sul, Brasil.

⁴Universidade de Cruz Alta, Programa de Pós-Graduação Atenção Integral à Saúde. Cruz Alta, Rio Grande do Sul, Brasil.

ABSTRACT

Objective: To analyze the quality of transition of hospital care to the community from high-risk postpartum women's perspective and identify intervening factors.

Method: This is a mixed methods study with high-risk postpartum women. Quantitative approach involved the application of the Care Transitions Measure-15 after hospital discharge. Qualitative approach, through semi-structured interviews at home. Descriptive and inferential analysis was performed for quantitative data, and content analysis, for qualitative data. Meta-inferences were extracted from data integration.

Results: Overall care transition was unsatisfactory (69.2; ± 17.0). Factors such as management preparation (71.1; ± 17.9) and care plan obtained satisfactory results (72.4; ± 18.9). Preferences important (64.5; ± 20.7) and medication understanding obtained unsatisfactory results (68.8; ± 21.0). Vaginal deliveries of 4 to 7 were associated with lower scores in management preparation ($p=0.020$), medication understanding ($p=0.040$) and preferences important ($p=0.050$). Patients without clinical complications had higher scores in management preparation ($p=0.013$), medication understanding ($p=0.001$), preferences important ($p=0.009$) and care plan ($p=0.009$). Regarding self-management, postpartum women received discharge guidance shortly before leaving the hospital. They indicated that family support and the experience of having another child were driving forces. However, guidance on medications, especially adverse effects, was limited, and they did not receive a care plan for the postpartum period nor did their preferences have assurance.

Conclusion: There was convergence in the low scores for medication understanding and preferences important identified in data integration. The number of vaginal deliveries and clinical complications influenced the factors.

DESCRIPTORS: Transitional Care. Continuity of Patient Care. Postpartum Period. Hospital to Home Transition. Patient Care Planning.

HOW CITED: Casagrande D, Petersen AGP, Romero MP, Tronco CS, Rosa ACM, Thum C, Kolankiewicz ACB. Care transition in the high-risk puerperium: A mixed methods study. Texto Contexto Enferm [Internet]. 2025 [cited YEAR MONTH DAY];34:e20240127. Available from: <https://doi.org/10.1590/1980-265X-TCE-2024-0127en>

TRANSIÇÃO DO CUIDADO NO PUERPÉRIO DE RISCO: ESTUDO DE MÉTODOS MISTOS

RESUMO

Objetivo: Analisar a qualidade da transição do cuidado do hospital para a comunidade na perspectiva das puérperas de risco e identificar fatores intervenientes.

Método: Estudo de métodos mistos, com puérperas de risco. Abordagem quantitativa envolveu a aplicação do *Care Transitions Measure-15*, após a alta hospitalar. Abordagem qualitativa, por meio de entrevistas semiestruturadas no domicílio. Análise descritiva e inferencial realizada para dados quantitativos e de conteúdo para qualitativos. Metainferências foram extraídas da integração dos dados.

Resultados: Transição do cuidado geral foi insatisfatória $69,2 (\pm 17,0)$. Fatores preparo para o autogerenciamento $71,1 (\pm 17,9)$ e plano de cuidados obtiveram resultados satisfatórios $72,4 (\pm 18,9)$. Preferências asseguradas $(64,5; \pm 20,7)$ e entendimentos das medicações insatisfatórios $(68,8; \pm 21,0)$. Partos vaginais de 4 a 7 associaram-se a menores escores no preparo para o autogerenciamento ($p=0,020$), entendimento das medicações ($p=0,040$) e preferências asseguradas ($p=0,050$). Pacientes sem intercorrências clínicas apresentaram escores mais altos nos fatores preparo para o autogerenciamento ($p=0,013$); entendimento das medicações ($p=0,001$); preferências asseguradas ($p=0,009$); e plano de cuidados ($p=0,009$). Quanto ao autogerenciamento, as puérperas receberam orientações para alta, pouco antes de sair do hospital. Apontaram que o apoio familiar e a experiência de ter outro filho foram propulsores. No entanto, as orientações sobre medicações, especialmente efeitos adversos, foram limitadas, e não receberam plano de cuidados para o puerpério nem tiveram suas preferências asseguradas.

Conclusão: Houve convergência nos baixos escores para entendimento das medicações e preferências asseguradas identificadas na integração dos dados. O número de partos vaginais e intercorrências clínicas influenciaram nos fatores.

DESCRIPTORIOS: Cuidado transicional. Continuidade da assistência ao paciente. Período pós-parto. Transição do hospital para o domicílio. Planejamento de assistência ao paciente.

TRANSICIÓN DE LA ATENCIÓN EN EL POSPARTO EN RIESGO: ESTUDIO DE MÉTODOS MIXTOS

RESUMEN

Objetivo: Analizar la calidad de la transición de la atención hospitalaria a la comunidad desde la perspectiva de las puérperas en riesgo e identificar los factores que intervienen.

Método: Estudio de métodos mixtos, con puérperas de riesgo. El enfoque cuantitativo implicó la aplicación del *Care Transitions Measure-15* después del alta hospitalaria. Enfoque cualitativo, a través de entrevistas semiestructuradas en casa. Análisis descriptivo e inferencial realizado para datos cuantitativos y de contenido para datos cualitativos. Las meta-inferencias se extrajeron de la integración de datos.

Resultados: La transición de cuidados generales fue insatisfactoria $(69,2; \pm 17,0)$. Los factores preparación para el autocuidado $(71,1; \pm 17,9)$ y plan de cuidados obtuvieron resultados satisfactorios $(72,4; \pm 18,9)$. Preferencias aseguradas $(64,5; \pm 20,7)$ y comprensión de los medicamentos obtuvieron resultados insatisfactorios $(68,8; \pm 21,0)$. Los partos vaginales del 4 al 7 se asociaron con puntuaciones más bajas en preparación para el autocuidado ($p=0,020$), comprensión de los medicamentos ($p=0,040$) y preferencias aseguradas ($p=0,050$). Los pacientes sin complicaciones clínicas tuvieron puntuaciones más altas en los factores preparados para el autocuidado ($p=0,013$), comprensión de los medicamentos ($p=0,001$), preferencias aseguradas ($p=0,009$) y plan de cuidados ($p=0,009$). En cuanto al autocuidado, las puérperas recibieron instrucciones para el alta poco antes de salir del hospital. Señalaron que el apoyo familiar y la experiencia de tener otro hijo eran fuerzas impulsoras. Sin embargo, la orientación sobre los medicamentos, especialmente los efectos adversos, fue limitada y no recibieron un plan de cuidados posparto ni tuvieron sus preferencias aseguradas.

Conclusión: Hubo convergencia en las puntuaciones bajas para la comprensión de los medicamentos y las preferencias aseguradas identificadas en la integración de datos. Los factores influyeron en el número de partos vaginales y las complicaciones clínicas.

DESCRIPTORIOS: Cuidado de Transición. Continuidad de la Atención al Paciente. Período Posparto. Transición del Hospital al Hogar. Planificación de Atención al Paciente.

INTRODUCTION

Continuity of care is a challenge for the Healthcare Network (RAS - *Rede de Atenção à Saúde*). In this context, care transition (CT) is a set of practices that aim to ensure coordination and continuity of healthcare when transferring users between different units of an institution or between different healthcare services¹.

Although institutions seek to ensure continuity of care, there are challenges regarding care coordination and user transfer between services. These difficulties are due to the weaknesses in the educational process aimed at hospital discharge; lack of care protocols; absence of an individualized care plan; lack of a reference family caregiver; communication gaps between Primary Health Care (PHC) and hospital, especially with regard to appointment scheduling, which can compromise care comprehensiveness².

In this context, women's health during pregnancy, childbirth and the postpartum period is a priority for healthcare institutions. The postpartum period is a complex and decisive phase for women due to the multiple physiological changes that occur and that lead to the recovery of their organism and the activation of their maternal role. At the same time, the postpartum period presents potential health risks, which is why it is considered a period of vulnerability for the woman, the newborn and the family³. Care during this period is important for the early detection of signs and symptoms of possible complications and/or alterations as well as for teaching and promoting practices that promote maternal and child health⁴.

Moreover, postpartum women may be classified as high-risk postpartum women, which includes women who had a high-risk pregnancy or who had complications during pregnancy, childbirth or the postpartum period. Although this classification exists, global guidelines for postnatal care are practically the same and recommend a minimum of three postpartum consultations, one between 48 and 72 hours after delivery, another between 7 and 14 days, and in the sixth week, given the risks to the mother and baby during this period⁵.

Despite existing recommendations, there is a weakness in continuous monitoring in the postpartum period, since less than 50% of women adhere to postnatal consultations⁶. It has not yet been identified whether this fact is linked to provision of care, coordination or articulation of healthcare services⁶⁻⁷. In Brazil, there are public policies and technical manuals that have been improved in order to guide continuity of care in the postpartum period⁸; however, there is no policy that aims at CT from the hospital to the community⁹.

An integrative literature review aimed to identify how CT occurs from the hospital to the community from high-risk postpartum women's perspective. Based on the results, there was a lack of studies on CT of postpartum women, including those considered at risk. In short, the available studies address fragmentation of care, the fragility of maternal care continuum and the inadequacy of maternal-child care line¹⁰, which justifies conducting this study.

Research has assessed CT with other populations, such as adults with chronic diseases^{2,11-17} children¹⁸, post-COVID-19 patients and premature infants after discharge from the neonatal ICU²⁰. With high-risk postpartum women, we identified a study in the literature that performed psychometric validation of an instrument and assessment of CT²¹.

Thus, given the lack of national and international studies that assess the quality of CT with postpartum women, there is a gap in knowledge as well as the novelty of the study in Brazil. Given the complexity of the CT process, which involves a range of actors and intervening factors, an analysis was proposed in addition to quantitative measures, through a mixed methods study, in order to understand the phenomenon from different perspectives and in a more comprehensive manner²².

Thus, the following research question emerged: What is the quality of CT in the high-risk postpartum period from the maternity ward to the community and what are the factors that interfere? Based on this context, this study aims to analyze the quality of transition from hospital care to the community from high-risk postpartum women's perspective and identify its intervening factors.

METHOD

This is a mixed methods study, with a convergent parallel design and QUAN-QUAL notation. This methodology allows combining approaches in order to provide a greater understanding of the research problem, identify convergences, divergences and perform the integration between the results of the quantitative and qualitative phases²³. This allows an in-depth analysis of the findings, with the potential to generate meta-inferences and unique insights into the phenomena under study²².

This is a cross-sectional study carried out in the maternity ward of a hospital in southern Brazil, which has 25 obstetric beds. All high-risk postpartum women residing in the medium-sized municipality located in Rio Grande do Sul, Brazil, admitted between November 2021 and August 2022, were eligible. Those who were not psychologically able to respond, both self- and allopsychically, were excluded. High-risk postpartum women were considered to be those who had a high-risk pregnancy or who, for some reason, had complications during pregnancy, childbirth and/or puerperium. This information was collected from patients' medical records. Selection was made by consecutive sampling, totaling the participation of 206 women.

The qualitative phase was carried out concurrently with the quantitative phase, and consisted of interviews with the participating postpartum women, who were randomly selected and interviewed in their homes. All those invited agreed to participate. The interviews were ended when the information began to be repeated, characterizing data saturation.

Quantitative phase

Patients were contacted at the bedside and invited to participate in the study. Sociodemographic and obstetric data were collected from medical records. They were then informed that they would receive a telephone call between 7 and 30 days after discharge to respond to the Care Transitions Measure-15 (CTM-15)²⁴. The instrument measures the quality of CT and has been translated and validated for use in Brazil²⁵ and psychometrically validated for use in high-risk postpartum women²¹.

The CTM-15 measures factors such as management preparation, medication understanding, preferences important and care plan. It comprises 15 questions, with answer options of up to four points, which are transformed into a scale from 0 to 100²⁴.

Quantitative analysis was performed using the Statistical Package for Social Sciences (SPSS) version 25.0 for Windows. Descriptive statistics were used through absolute and relative distributions (n - %) as well as measures of central tendency (mean and median) and variability (standard deviation and interquartile range). The symmetry of continuous distributions was assessed by the Kolmogorov-Smirnov test. The comparison of factor scores between two independent groups was performed using Student's t-test. And in comparisons involving three or more independent groups, the One-Way Analysis of Variance – Post Hoc Scheffé was used. The internal consistency of CTM-15 items was assessed by the Cronbach's alpha coefficient (α C).

Qualitative phase

Data collection was carried out through semi-structured interviews with 12 high-risk postpartum women in their respective homes. Each selected postpartum woman was assigned a health unit and a community health worker (CHW). Each CHW was contacted by telephone in advance. During this

interview, the first author of the study gave a brief presentation, emphasized the research objectives, and established a partnership for conducting the interviews.

The CHWs contacted postpartum women, scheduled the interview, and accompanied the researcher to their homes. The CHWs did not remain at home during the interviews. The interviews were conducted by the first author, a nurse, based on a script prepared by the researchers, which consisted of questions based on CTM-15 factors. They were recorded on audiotape and transcribed in full. To ensure anonymity, postpartum women were identified as P1, P2, P3, and so on. Inductive data analysis was performed using the thematic content analysis technique, which aims to determine the historicity of the event studied, based on a critical worldview centered on the collective²⁶.

Integration of quantitative and qualitative data

After the quantitative and qualitative analyses, the two sets of results were integrated using joint display. The data were interpreted, identifying convergences, divergences and relationships among them, providing a better understanding of the study objectives. Finally, a broader interpretation of results was performed, and meta-inferences were drawn²².

All CTM-15 factors were considered in the integrated analysis, as we sought a comprehensive and holistic understanding of the phenomenon studied. Moreover, data integration can provide complementary insights that help to better understand the complexities of the phenomenon. In this way, the study can provide useful and relevant information for decision-making in the field of maternal health.

The ethical prerogatives of Resolution 466/2012 of the Brazilian National Health Council (CNS – *Conselho Nacional de Saúde*) were followed, with approval from the Research Ethics Committee, and all participants signed the Informed Consent Form (ICF).

RESULTS

Quantitative results

A total of 206 high-risk postpartum women participated in the study. Their ages ranged from 14 to 44 years, with an average of 27.6 years. When age was assessed by age group, the age group from 21 to 30 years prevailed, with 50.5% (n=104), followed by the age group from 31 to 40 years, with 31.6% (n=65). Stable union was observed in 88.3% (n=181) of the sample. The most prevalent level of education was complete high school, with 45.4% (n=93), followed by complete elementary school, with 29.8% (n=61). Regarding occupation, just over half reported working, 55.2% (n=106).

Concerning obstetric characteristics, it was found that gestational age above 37 weeks was confirmed by 88.8% (n=182) of those investigated, and the number of prenatal consultations with a quantity greater than six prevailed in 185 women (93.4%). As for the type of childbirth, cesarean section prevailed in a representative way, with 79.6% (n=164). The most prevalent comorbidities were diabetes mellitus (DM), with 33.0% (n=68), and hypertension (HT), with 9.7% (n=20). The presence of complications was noted in 18.0% (n=36) at the time of hospitalization.

Table 1 presents descriptive statistics for the overall CTM-15 and by factors. The mean CTM-15 score was 69.2 (± 17.0). Factor 1 (management preparation) scored 71.1 (± 17.9); factor 2 (medication understanding) scored 68.8 (± 21.0); factor 3 (preferences important) scored 64.5 (± 20.7); and factor 4 (care plan) scored 72.4 (± 18.9).

Regarding the estimate of the scale's total reliability, Cronbach's alpha value was 0.834. The highest reliability occurred in management preparation ($\alpha C=0.822$), and the lowest in care plan ($\alpha C=0.744$).

Table 1 – Measures of central tendency and variability for CTM-15 factors*. Ijuí, RS, Brazil, 2022 (n=206).

Factors	Percentiles					
	Mean	Standard deviation	25 th	50 th	Median	75 th
Management preparation	71.1	17.9	61.9	66.7	85.7	0.822
Medication understanding	68.8	21.0	55.6	66.7	77.8	0.817
Preferences important	64.5	20.7	55.6	66.7	77.8	0.812
Care plan	72.4	18.9	66.7	66.7	83.3	0.744
CTM-15 Overall	69.2	17.0	61.1	66.7	78.8	0.834

*CTM-15: Care Transitions Measure-15; †α: alpha's Cronbach.

When comparing the scale with sociodemographic variables, we can infer that the scale presented an independent relationship with the sociodemographic profile. When age was compared to scale factors, a statistically significant, negative and weak correlation was identified regarding medication understanding ($r = -0.152$; $p=0.029$), suggesting that older ages should be correlated with lower scores in this factor, as shown in Table 2.

In the comparisons of the scale with obstetric characteristics, significant results were detected, as can be seen in Table 3. The number of normal childbirths had a representative impact on the scale, indicating that patients with a number of childbirths from 4 to 7 had significantly lower mean scores when compared to those who had a lower number of births from 1 to 3, or to postpartum women who did not perform a vaginal birth in management preparation ($p=0.020$), medication understanding ($p=0.040$) and preferences important ($p=0.050$).

Concerning the number of cesareans, the significant difference was associated with preferences important ($p=0.017$), indicating that patients with fewer or up to 3 cesareans had a higher mean when compared to those with more cesareans ($p=0.017$).

Significantly higher mean CTM-15 scale scores were significantly associated with patients without complications. These findings were evidenced in management preparation ($p=0.013$), medication understanding ($p=0.001$), preferences important ($p=0.009$) and care plan ($p=0.009$).

Qualitative results

The interviews lasted approximately 12 minutes and were conducted at home, which provided peace of mind to answer the questions. The categories were listed, *a priori*, based on CTM-15 factors, considering that the aim was to understand the quantitative results.

Regarding management preparation, participants generally highlighted weaknesses, such as the guidance received shortly before hospital discharge. They also pointed out that the guidance received during hospitalization was superficial. As aspects that favored self-management, they pointed out the family support received and the previous experience of having another child, as can be seen in the following statements:

[...] I received the instructions on the last day, just before leaving the hospital (P1).

[...] I received little information about how to care for my dressing, bleeding (P8).

There at the hospital I couldn't breastfeed, but they didn't give me any guidance on that, you know? [...] (P2).

Postpartum women considered the support from family members to be positive, as well as the fact that they had other children, which contributed to better self-management.

I felt more prepared because it was my second child (P9).

I have help from my husband, my mother, even my mother-in-law, she helps me a lot (P10).

Table 2 – Mean and standard deviation for scale factors according to age, education and marital status.
Correlation coefficient of CTM-15* factors in comparison to age. Ijuí, RS, Brazil, 2022 (n=206).

Variables	N [†]	CTM-15 factors*							
		Management preparation		Medication understanding		Preferences important		Care plan	
		Mean	SD [‡]	Mean	SD [‡]	Mean	SD [‡]	Mean	SD [‡]
Age (years)	205	(r [§] =-0.110; p=0.117)		(r [§] =-0.152; p=0.029)		(r [§] =-0.102; p=0.143)		(r [§] =-0.093; p=0.184)	
Education									
Incomplete elementary school	30	69.8	14.2	67.0	15.6	64,4	17,6	72,2	13,4
Elementary school	61	71.8	18.2	71.4	20.9	64,5	20,7	73,0	17,8
High school	93	71.2	17.4	67.1	21.9	63,5	20,3	73,7	19,9
Higher education	21	68.9	23.5	70.4	24.2	67,2	25,9	65,1	23,5
p(value) [¶]		0.910		0.609		0.910		0.307	
Marital status									
Stable union	181	71.5	16.9	69.3	19.9	64,2	19,4	72,7	17,6
Living alone	24	68.5	24.7	64.8	28.5	66,2	29,2	70,8	27,0
p(value) [¶]		0.450		0.326		0.657		0.659	

*CTM-15: Care Transitions Measure-15; †N: number; ‡SD: standard deviation §r: Pearson's correlation coefficient; ||: Student's t-test for independent groups; ¶: One-Way Analysis of Variance Post Hoc Bonferroni test.

Table 3 – Mean and standard deviation for CTM-15* factors according to clinical characteristics. Ijuí, RS, Brazil, 2022 (n=206).

Clinical characteristics	CTM-15* factors								
		Management preparation		Medication understanding		Preferences important		Care plan	
Variables	N†	Mean	SD‡	Mean	SD‡	Mean	SD‡	Mean	SD‡
Vaginal delivery									
None	144	72.0§	17.8	70.1§	21.1	65.5§	19.9	73.0§	19.2
1-3	52	71.6§	16.4	68.2§	19.2	64.5§	21.7	73.1§	16.6
4-7	9	54.9	22.9	51.9	24.2	48.1	22.9	59.3	23.7
p(value)		0.020		0.040		0.050		0.101	
Cesarean delivery									
None	35	67.6	21.1	64.1	23.2	57.1§	23.5	68.6	19.7
1-3	166	72.2	17.0	69.8	20.5	66.5§	19.7	73.5	18.7
4-7	5	59.0	18.9	66.7	19.2	51.1	16.9	63.3	13.9
p(value)		0.119		0.338		0.017		0.207	
Complications									
Yes	36	64.5	22.2	58.3	20.6	56.2	23.3	64.8	20.6
No	164	72.5	16.0	70.8	20.6	66.0	19.6	73.8	17.8
p(value)		0.013		0.001		0.009		0.009	

*CTM-15: Care Transitions Measure-15; †N: number; ‡SD: independent standard deviation; D: One Way Post Hoc Bonferroni analysis of variance test, where means followed by the same letters do not differ at a significance level of 5%; ||: Student's t-test for groups

When questioning participants about their medication understanding, we noticed that some professionals explained and others explained when asked, but none explained the adverse effects, according to the following statements:

They would come, even at dawn, and say this is for pain [...] (P9).

I asked what it was for, and then they explained (P8).

I did not receive any guidance regarding the effects that the medications could cause (P12).

They never talked about the effects after use (P5).

In relation to preferences important, it is observed in the statements that postpartum women did not have the possibility of choosing, and had greater difficulty in scheduling puerperal consultations, when discharge occurred on weekends and holidays. CHWs were the facilitators, in the sense of making the scheduling;

I scheduled an appointment at the unit, but I couldn't choose the day and time (P1).

I called the CHW of the unit, and the appointment was scheduled for another week. It was not considered the best day and time; it was the day they had (P3).

I was discharged on Saturday morning. Then I received a visit from the CHW on Wednesday, and she scheduled it for next week (P5).

[...] the CHW asked me to go on a Monday or Tuesday, but then I went to the clinic and they hadn't registered the baby yet, so I didn't have the Brazilian Health System card. I had to register it and then take him to the appointment. So, I was the only one who was able to see him (P11).

As for care plan, it is possible to state that they did not receive a written plan for the postpartum period. They received a care plan for babies, denoting a certain invisibility of postpartum women, according to the following statements:

No, I did not receive any care plan. I only received the baby's papers and heel prick test (P7).

I received several documents about the need to do a heel prick test, an ear prick test... how to take care of the baby (P12).

Oh yes, I received a paper, with the care described on how to take care of the baby (P4)

Integrated results

The integration of qualitative and quantitative data at the interpretation level occurred through joint display. In joint display, the left column represents the quantitative results of the CTM-15 and the right column represents postpartum women's perception regarding each factor. This integration of results allowed a more comprehensive analysis of the data *corpus*.

We can observe, as shown in Chart 1, that the analysis of quantitative and qualitative results revealed both convergences and divergences.

The identified metainferences are presented in Chart 2.

DISCUSSION

This study used a mixed methods approach to better understand the quality of CT experienced by high-risk postpartum women. In the quantitative phase, the mean CTM-15 score was 69.2 (± 17.0), a mean very close to that considered satisfactory. We found in the literature a study that assessed CT from the perspective of 316 high-risk postpartum women, with satisfactory results in management preparation (72.7) and care plan (72.8), and unsatisfactory results in medication understanding (69.4) and preferences important (65.6)²¹.

When analyzing management preparation, which includes the guidance provided during hospitalization regarding self-care, identification of warning signs and referral services¹, although a satisfactory score was obtained, in the qualitative phase, postpartum women mentioned weaknesses.

Chart 1 – Joint display with real quotes from statements of postpartum women related to CTM-15 factors. Ijuí, Rio Grande do Sul, Brazil, 2022.

Factors Quantitative result (Mean)	Qualitative results
Management preparation 71.1	<i>The discharge instructions were carried out shortly before discharge from the hospital (P3). I believe they could have explained more [...] I think there was a lack of guidance (P6). I had doubts about the stitches [...] there was a little secretion [...] they said I had to use a spray, that's all (P11). [...] I felt more prepared for having another child [...] (P2). I was safe, yes, he [husband] helped me a lot, he was with me all the time (P7).</i>
Medication understanding 68.7	<i>When they put the serum in, they said what the medicine was for (P4). They came and guided me, the medicines I would have to take. [...] the medicines I had to use, because I have high blood pressure (P6). I received the instructions [...], when I asked, they explained (P3). When I was discharged, I was given painkillers, which they normally give. And for the baby, it was medicine for colic, paracetamol, those things [...] but no one explained what side effects they could cause (P1). No, no one advised us about the adverse effects (P2).</i>
Preferences important (64.5)	<i>I was discharged on Saturday and I scheduled it on Monday. In fact, when I arrived the receptionist asked if it wasn't scheduled, I said no, [...] I also didn't know that the hospital scheduled it, but maybe because it was the weekend, it didn't happen (P2). At the hospital they said, "It will be on such and such a day, you cannot be discharged without a scheduled appointment". So, you need to go to the health unit (P7). They (maternity hospital) said they would schedule it, but they forgot, I don't know what happened. I scheduled it at the unit... they (health unit) are always asking about the time, always scheduling it for a little later, because of the baby, they are very concerned about us (P10). The CHW who scheduled. The only option is in the morning, as the doctor only sees at this time (P6).</i>
Care plan (72.4)	<i>I received written recommendations about breastfeeding, stapled to the prescription, and the baby's papers (P3). Yes, I did. With routine baby care, hygiene, dressings, breastfeeding [...] (P2). I received some papers that instructed me on how to take care of the baby (P11). I did not receive a care plan (P6).</i>

Chart 2 – Meta-inferences identified from integration of results.

CT analysis obtained an overall mean of 69.2, assuming moderate quality of CT in the high-risk postpartum period. Postpartum women identified weaknesses in all factors, which explains the result.
Preparation for discharge, carried out shortly before hospital discharge, compromises management preparation. Family support and having children were considered facilitators by postpartum women.
Postpartum women were not given guidance on the adverse effects of medications, weakening their medication understanding.
Care plan received a satisfactory assessment; however, the interviewed postpartum women reported not having received it.
Preferences important obtained an unsatisfactory score, in line with qualitative data. For instance, scheduling consultations in PHC did not take into account patients' preferences and needs. In addition, there were scheduling difficulties when discharge occurred on weekends and holidays.
The use of mixed methods allowed a broad understanding of CTM-15 factors from high-risk postpartum women's perspective.

They highlighted insufficient guidance and indicated that it was offered very close to the time of hospital discharge, and only those who already had children felt confident about self-care.

The little time given to prepare patient and family, combined with excess information, can compromise understanding and generate doubts and insecurities in post-discharge care¹¹. In this study, 79.6% of women underwent cesarean section, a surgical procedure associated with a 56% rate of early complications, including postpartum infection. Thus, it is assumed that this patient profile may require more complex and continuous home care. Therefore, this consideration, combined with postpartum women's reports, may explain the weakness identified as insufficient guidance.

In Spain, discharge guidelines are provided differently. Hospitals have specific nurses to coordinate the discharge process: liaison nurses. They begin preparing for discharge from the moment a patient is admitted and ensure that they receive care planned according to their needs²⁷. In Brazil, we have incipient CT initiatives, such as a navigation program for oncology patients, where patients are prioritized based on the application of a scale that considers the degree of need, and addresses issues that consider cost-effectiveness²⁸.

In addition to management preparation, another factor that obtained a satisfactory score was care plan. This dimension encompasses the existence of a discharge plan and referrals. In the reports, half of participants stated that they had received the prescribed care and were able to report, in overall terms, what was included in the document. The other half said that they had not received the prescribed care plan. The statements also identified that the care plan was delivered together with other forms of information about the baby at the time of discharge. Thus, it is possible to consider the possibility that the plan was delivered, but ended up not being seen and discussed with patients. Therefore, the quantitative and qualitative findings diverge, as they contradict each other.

Studies conducted with chronic patients found weaknesses in relation to care plan^{11,19}. Although most patients reported having received the plan, many left without remembering, knowing or having referrals and scheduling for post discharge follow-up, which points to the need for hospital discharge to be better planned and to provide patients with a better understanding of their self-care¹¹.

In the case of high-risk postpartum women, a viable strategy could be to provide a written care plan, with verbal instructions, and to use the teach-back strategy. This strategy involves teaching something and then asking a person, in their own words, to demonstrate what the professional taught them²⁹.

Listening to and ensuring patients' preferences regarding their care allows patients and families to take a more active role in care management decisions and has a positive impact on health. It also enables healthcare professionals to look at sociodemographic and clinical characteristics and plan care that meets their needs continuously and comprehensively³⁰. Considering the best day and time for a patient who is adapting to a new routine with her baby has a positive impact on her outpatient follow-up and is an important strategy for qualifying CT. Therefore, if the scheduling adapts to her routine, the likelihood of adherence to the consultation is greater, and consequently, there is a reduction in risks, since problems are detected and treated early.

Despite the benefits mentioned regarding appointment scheduling based on preferences important, the score for this factor was unsatisfactory and converged with reports that reveal a sad reality in PHC in Brazil, where access barriers are imposed and justified in an equivocal manner. The reports mentioned two cases in which postpartum women and newborns were not assessed during consultations due to lack of internet access at the location and lack of a Brazilian Health System card.

Another factor with a negative score was medication understanding, and its score was also explained in qualitative reports. The women mentioned that, when hospitalized, explanations about medications were offered at the time of their administration and, sometimes, were given due to questions. Regarding the understanding of medication prescriptions for hospital discharge, the majority

expressed adequate understanding. However, regarding guidance on adverse effects, all participants reported a lack of guidance, reaffirming an issue already highlighted by another study²¹ that guidance on adverse effects of medications is still incipient.

Furthermore, it was found that older ages were correlated with lower scores in this factor. We can relate this issue to two situations: That older women receive less guidance regarding medications or that older women have greater difficulty understanding the guidance.

Given that myths and beliefs permeate the postpartum period and that women are concerned about administering medication during this breastfeeding phase, it is important that they are adequately informed, alleviating concerns and insecurities regarding their self-care.

When comparing the CTM-15 with obstetric characteristics, we found that women who had more than four childbirths or who had obstetric complications had lower scores, with a significant difference in the assessment of management preparation, medication understanding and preferences important. A possible explanation for this finding may be the fact that women with more children also have a low level of health literacy, a hypothesis that can be analyzed in a future study. Therefore, we can infer that the lower score, in this case, may be related to both postpartum women's parity/experience and possible deficits in the information received.

When analyzing preferences important, it was found that women with more than three cesarean sections had fewer preferences important, i.e., their needs were listened to less. Based on this finding, it is assumed that healthcare professionals may adopt prejudiced behaviors towards women, since they are exposed to a pregnancy that is known to be high risk. However, the World Health Organization emphasizes that, regardless of the context in which women are inserted, they must be heard and their needs must be recognized, in order to promote a positive postnatal experience⁵.

As for complications, representative impacts were obtained in the four factors, indicating significantly higher mean scores among patients without complications. Therefore, women who presented complications possibly required more complex and comprehensive care from the health team. Furthermore, they faced situations that diverged from their expectations, having to readapt according to their health situation. These issues may have negatively influenced CT assessment. A study carried out in Sweden with 189 neurological patients had similar results, indicating that the greater the degree of severity, the worse the CT assessment¹³.

Finally, the results of this study showed that sociodemographic variables had an independent relationship with CT. However, obstetric characteristics significantly impacted all factors, showing that this population requires specific CT strategies. Therefore, the novelty of the work stands out, considering that we found in the literature a study that measured the quality of CT from postpartum women's perspective, and none with a mixed design, which allowed, in joint analysis, a better understanding of results.

Limitations

The research is limited by the lack of previous studies that assess the quality of CT in postpartum women for data discussion. It is expected that this study will spark debate on CT, especially in high-risk postpartum women.

CONCLUSION

In the overall assessment, CT in high-risk puerperium showed unsatisfactory quality, 69.2 (± 17.0). Postpartum women with more than four children by vaginal or cesarean delivery had lower and significantly different scores in management preparation, medication understanding and preferences important. Postpartum women without clinical complications showed a significant association, with higher scores in all factors.

In integrated data analysis, it was observed that the unsatisfactory scores of medication understanding and preferences important converged with qualitative data. The guidelines on medications and their effects are fragile, which may reflect insecurity in self-management of their health condition. The guarantee of a PHC schedule is not always assured at hospital discharge and does not consider the best day and time for postpartum women, which could contribute to better outpatient monitoring and avoid early complications.

This is the first Brazilian study to assess the quality of CT in high-risk postpartum women using a mixed-methods study. The contribution of this study to nursing and to the multidisciplinary team, which play a fundamental role in CT, stands out. It is suggested that further research be carried out to give greater visibility to the topic and promote changes in care practices, studying specific CT interventions for high-risk postpartum women.

REFERENCES

1. Coleman EA, Boulton C. Improving the quality of transitional care for persons with complex care needs. *J Am Geriatr Soc* [Internet]. 2003 [cited 2024 Mar 03];51(4):556-7. Available from: <https://doi.org/10.1046/j.1532-5415.2003.51186.x>
2. Rodrigues CD, Lorenzini E, Onwuegbuzie AJ, Oelke ND, Garcia CF, Malkiewicz MM, et al. Care transition from the perspectives of oncological patients and the multiprofessional care team. *Cancer Nurs*. [Internet]. 2022 [cited 2024 Mar 03];11;47(1):E47-56. Available from: <https://doi.org/10.1097/ncc.0000000000001160>
3. World Health Organization (WHO). WHO urges quality care for women and newborns in critical first weeks after childbirth [Internet]. 2022 [cited 2024 Nov 22]. Available from: <https://www.who.int/es/news/item/30-03-2022-who-urges-quality-care-for-women-and-newborns-in-critical-first-weeks-after-childbirth>
4. Ministerio de Sanidad, Servicios Sociales e Igualdad. Agencia de Evaluación de Tecnologías Sanitarias de Andalucía. Guía de práctica clínica de atención en el embarazo y puerperio. [Internet]. 2014. [cited 2024 Nov 22]. Available from: https://www.sanidad.gob.es/organizacion/sns/planCalidadSNS/pdf/Guia_practica_AEP.pdf
5. World Health Organization (WHO). WHO recommendations on maternal and newborn care for a Positive postnatal experience. [Internet] 2022 [cited 2024 Nov 22]. Available from: <https://reliefweb.int/report/world/who-recommendations-maternal-and-newborn-care-positive-post-natal-experience>
6. De Azevedo Bittencourt SD, Cunha EM, Domingues RMSM, Dias BAS, Dias MAB, Torres JA, et al. Nascer no Brasil continuidade do cuidado na gestação e pós-parto à mulher e ao recém-nato. *Rev Saúde Pública* [Internet]. 2020 [cited 2024 Nov 22];54:100. Available from: <https://doi.org/10.11606/s1518-8787.2020054002021>
7. Fusquine RS, Lino NCF, Chagas ACF, De Toledo Candido Muller K. Adesão e rejeição à consulta puerperal por mulheres de uma unidade básica de saúde da família. *Arq Ciên Saud* [Internet]. 2019 [cited 2024 Nov 22];28;26(1):37. Available from: <https://doi.org/10.17696/2318-3691.26.1.2019.1241>
8. BRASIL. Ministério da Saúde. Nota técnica para organização da rede de atenção à saúde com foco na atenção primária à saúde e na atenção ambulatorial especializada. Saúde da mulher na gestação, parto e puerpério. Brasília, DF (BR): Ministério da Saúde; São Paulo, SP (BR): Sociedade Beneficente Israelita Brasileira Albert Einstein [Internet]. 2019 [cited 2024 Nov 22]. Available from: https://www.as.saude.ms.gov.br/wp-content/uploads/2021/11/notatecnica_saude_mulher.pdf

9. Lorenzini E, Boell JEW, Oelke ND, Rodrigues CD, Trindade LF, Winter VDB, et al. Care transition from hospital to home: Cancer patients' perspective. *BMC Research Notes* [Internet]. 2020 [cited 2024 Nov 22];13:267. Available from: <https://doi.org/10.1186/s13104-020-05099-x>
10. Petersen AGP, Kolankiewicz ACB, Casagrande D, Pluta P, Winter VDB, De Carvalho FF, et al. Weaknesses in the Continuity of care of puerperal Women: An Integrative Literature Review. *Rev Bras Ginecol Obstet.* [Internet]. 2023 [cited 2024 Nov 22];45(7):e415-21. Available from: <https://doi.org/10.1055/s-0043-1772185>
11. Acosta AM, Da Silva Lima MAD, Pinto IC, Weber LAF. Care transition of patients with chronic diseases from the discharge of the emergency service to their homes. *Rev Gaúcha Enferm* [Internet]. 2020 [cited 2024 Nov 22];41(Spe):e20190155. Available from: <https://doi.org/10.1590/1983-1447.2020.20190155>
12. Rodrigues CD, Lorenzini E, Romero MP, Oelke ND, Winter VDB, Kolankiewicz ACB. Care transitions among oncological patients: From hospital to community. *Rev Esc Enferm USP* [Internet]. 2022 [cited 2024 Nov 22];56:e20220308. Available from: <https://doi.org/10.1590/1980-220x-reeusp-2022-0308en>
13. Lindblom S, Flink M, Sjöstrand C, Laska AC, Von Koch L, Ytterberg C. Perceived Quality of Care Transitions between Hospital and the Home in People with Stroke. *J Am Med Dir Assoc* [Internet]. 2020 [cited 2024 Nov 22];21(12):1885-92. Available from: <https://doi.org/10.1016/j.jamda.2020.06.042>
14. Hwang JI, Chung JH, Kim HK. Psychometric properties of transitional care instruments and their relationships with health literacy: Brief PREPARED and Care Transitions Measure. *J Qual Health Care* [Internet]. 2019 [cited 2024 Nov 22];31(10):774-80. Available from: <https://doi.org/10.1093/intqhc/mzz033>
15. Yusof NFM, Tan NCE. Perceived quality of transitional care between public hospital and public health care clinic in Negeri sembilan, Malaysia: A pilot study. *MJPHM* [Internet]. 2020 [cited 2024 Nov 22];20(1):90-101. Available from: <https://doi.org/10.37268/mjphm/vol.20/no.1/art.555>
16. Hu R, Gu B, Tan Q, Xiao K, Li X, Cao X, et al. The effects of a transitional care program on discharge readiness, transitional care quality, health services utilization and satisfaction among Chinese kidney transplant recipients: A randomized controlled trial. *Int J Nurs Stud* [Internet]. 2020 [cited 2024 Nov 22];110:103700. Available from: <https://doi.org/10.1016/j.ijnurstu.2020.103700>
17. Berghetti L, Danielle MBA, Winter VDB, Petersen AGP, Lorenzini E, Kolankiewicz ACB. Transição do cuidado de pacientes com doenças crônicas e sua relação com as características clínicas e sociodemográficas. *Rev Latino-Am Enferm* [Internet]. 2023 [cited 2024 Nov 22];31:e4013. Available from: <https://doi.org/10.1590/1518-8345.6594.4015>
18. Cechinel-Peiter C, De Melo Lanzoni GM, De Mello ALSF, Acosta AM, Pina JC, De Andrade SR, et al. Quality of transitional care of children with chronic diseases: A cross-sectional study. *Rev Esc Enferm USP* [Internet]. 2022 [cited 2024 Nov 22];56:e20210535. Available from: <https://doi.org/10.1590/1980-220x-reeusp-2021-0535>
19. Winter VDB, Berghetti L, Dezordi CCM, Camera FD, Kolankiewicz ACB. Transição de cuidado de pacientes internados por COVID-19 e sua relação com as características clínicas. *Acta Paul de Enferm* [Internet]. 2024 [cited 2024 Nov 22];37:eAPE00012. Available from: <https://doi.org/10.37689/acta-ape/2024ao0000012>
20. Yeh AM, Song AY, Vanderbilt DL, Gong C, Friedlich PS, Williams R, et al. The association of care transitions measure-15 score and outcomes after discharge from the NICU. *BMC Pediatrics* [Internet]. 2021 [cited 2024 Nov 22];21:7. Available from: <https://doi.org/10.1186/s12887-020-02463-5>

21. Petersen AGP, Tronco CS, Casagrande D, Pluta P, Winter VDB, Carvalho FF, et al. Validação psicométrica da care transitions measure (CTM-15) para uso brasileiro em puérperas de risco. *Texto Contexto Enferm* [Internet]. 2023[cited 2024 Nov 22];32:e20220341. Available from: <https://doi.org/10.1590/1980-265X-TCE-2022-0341pt>
22. Molina-Azorin JF, Fetters MD. The Journal of Mixed Methods Research starts a new decade. *Mix Methods Res* [Internet]. 2017 [cited 2024 Nov 22];11(2):143–55. Available from: <https://doi.org/10.1177/1558689817696365>
23. Creswell JW. A concise introduction to mixed methods research. Thousand Oaks: Sage; 2015.
24. Coleman EA, Mahoney E, Parry C. Assessing the Quality of Preparation for Posthospital Care from the Patient? *Med Care* [Internet]. 2005 [cited 2024 Nov 22];43(3):246–55. Available from: <https://doi.org/10.1097/00005650-200503000-00007>
25. Acosta AM, Lima MADS, Marques GQ, Levandovski PF, Weber LAF. Brazilian version of the Care Transitions Measure: translation and validation. *Int Nurs Rev* [Internet]. 2016 [cited 2024 Nov 22];64(3):379–87. Available from: <https://doi.org/10.1111/inr.12326>
26. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. São Paulo, SP(BR): Hucitec, 2014.
27. Aued GK, Bernardino E, Lapierre J, Dallaire C. Atividades das enfermeiras de ligação na alta hospitalar: uma estratégia para a continuidade do cuidado. *Rev Latino-Am Enferm* [Internet]. 2019 [cited 2024 Nov 22];27:e3162. Available from: <https://doi.org/10.1590/1518-8345.3069.3162>
28. Pautasso FF, Lobo TC, Flores CD, Caregnato RCA. Nurse Navigator: Development of a program for Brazil. *Rev Latino-Am Enferm* [Internet]. 2020 [cited 2024 Nov 22];28: e3275. Available from: <https://doi.org/10.1590/1518-8345.3258.3275>
29. Shersher V, Haines TP, Sturgiss L, Weller C, Williams C. Definitions and use of the teach-back method in healthcare consultations with patients: A systematic review and thematic synthesis. *Patient Educ Couns*. [Internet]. 2021 [cited 2024 Nov 22];104(1):118–29. Available from: <https://doi.org/10.1016/j.pec.2020.07.026>
30. De Carvalho FF, Petersen AGP, Tronco CS, Casagrande D, De Oliveira Rodrigues F, Griep RH, et al. Social support among puerperal at risk: association with sociodemographic and clinical characteristics. *Cogitare Enferm* [Internet]. 2024 [cited 2024 Nov 22];29:e91561. Available from: <https://doi.org/10.1590/ce.v29i0.95053>

NOTES

ORIGIN OF THE ARTICLE

Article extracted from the dissertation “*Transição do cuidado na perspectiva de puérperas risco e profissionais de saúde*”, presented to the Graduate Program in Comprehensive Healthcare, *Universidade Regional do Noroeste do Estado do Rio Grande do Sul*, in 2024.

CONTRIBUTION OF AUTHORITY

Study design: Casagrande D, Petersen AG, Tronco CS, Romero MP, Kolankiewicz ACB.

Data collection: Casagrande D, Petersen AG, Kolankiewicz ACB.

Data analysis and interpretation: Rosa ACM, Casagrande D, Petersen AG, Tronco CS, Romero MP, Kolankiewicz ACB.

Discussion of results: Casagrande D, Petersen AG, Rosa ACM, Tronco CS, Thum C, Kolankiewicz ACB.

Writing and/or critical review of content: Casagrande D, Petersen AG, Tronco CS, Romero MP, Thum C, Kolankiewicz ACB.

Final review and approval of the final version: Rosa ACM, Casagrande D, Petersen AG, Tronco CS, Thum C, Romero MP, Kolankiewicz ACB.

ACKNOWLEDGMENT

We would like to thank the *Hospital de Clínicas de Ijuí* for authorizing us to collect the data.

FUNDING INFORMATION

Productivity grant from the Brazilian National Council for Scientific and Technological Development (CNPq – *Conselho Nacional de Desenvolvimento Científico e Tecnológico*), number 306855/2021-6. Graduate Support Program (PROAP – *Programa de Apoio à Pós-graduação*) – Coordination for the Improvement of Higher Education Personnel (CAPES – *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*) 88881.993188/2024-01.

APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved by the *Universidade Regional do Noroeste do Estado do Rio Grande do Sul* Research Ethics Committee, under Certificate of Presentation for Ethical Consideration (CAAE – *Certificado de Apresentação para Apreciação Ética*) 57614722.4.0000.5350 and Opinion 5.438.442 of May 30, 2022.

CONFLICT OF INTEREST

There is no conflict of interest.

EDITORS

Associated Editors: José Luís Guedes dos Santos, Ana Izabel Jatobá de Souza.

Editor-in-chief: Elisiane Lorenzini.

TRANSLATED BY

Letícia Belasco.

HISTORICAL

Received: May 22, 2024.

Approved: October 02, 2024.

CORRESPONDING AUTHOR

Adriane Cristina Bernat Kolankiewicz.

adriane.bernat@unijui.edu.br

