

## Transcultural adaptation to the Brazilian Portuguese of the *Postpartum Bonding Questionnaire* for assessing the postpartum bond between mother and baby

Adaptação transcultural para o português do Brasil do *Postpartum Bonding Questionnaire* para avaliação do vínculo no pós-parto entre mãe e bebê

Adaptación transcultural al portugués brasileño del *Postpartum Bonding Questionnaire* para evaluar el vínculo en el posparto entre la madre y el bebé

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### Abstract

*The establishment of the bond between mother and baby in the postpartum period is important for ensuring the physical and psychological health of both. This short communication reports the first phase of the cross-cultural translation and adaptation to the Brazilian context of the Postpartum Bonding Questionnaire (PBQ). Four aspects of equivalence between the original scale and the Portuguese version were evaluated: the conceptual, semantic, operational and item equivalences. Literature review, the study of PBQ history, translation, expert evaluation, back-translation and pretests involving 30 mothers with children aging up to 7 months using a primary healthcare unit were conducted. Each step demonstrated the need for adjustments, which were made during the adaptation process. At the end of the study, a version of PBQ in Brazilian Portuguese equivalent to the original one was obtained, offering promise for national studies on the mother-baby bond, and its influence on health, and for use in health services.*

*Object Attachment; Postnatal Care; Psychiatric Status Rating Scales; Surveys and Questionnaires*

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## Introduction

The postpartum period evokes changes and adaptations of the women's psychic, social and physiological systems<sup>1,2</sup>. At this point, the normative expectation is that she will develop several skills, and establishing the bond with her baby is one of the most relevant<sup>3,4</sup>. Bonding or attachment between mother and baby is defined as an affective relationship involving emotional and physiological processes that manifest through the behaviors, feelings and thoughts of the woman in relation to the child. It ensures that she remains sensitive and available to meet the baby's needs after birth<sup>3,5</sup>.

In Brazil, there is no adequate multidimensional instrument to assess the quality of the bond between mother and baby in the postpartum period<sup>6</sup>. However, instruments from other language and sociocultural contexts are used<sup>7,8,9</sup>. Thus, this study selected the *Postpartum Bonding Questionnaire* (PBQ)<sup>8</sup> for transcultural translation and adaptation to the Brazilian context.

PBQ is a multidimensional, self-completion scale composed of 25 items divided into four dimensions. Each item has six options, ranging from 0 (never) to 5 (always). Factor 1 (impaired bonding) has sensitivity of 93% in the detection of bonding problems and accounts for 34% of the variance of the scale. The second factor (rejection and pathological anger) has a sensitivity of 89% and accounts for 8% of the variance of the scale. Factor 3 (anxiety about the infant) has a sensitivity of 56% and accounts for 3.7% of the test variance. Factor 4 (incipient abuse) shows sensitivity of 28% and accounts for 3.4% of the test variance<sup>8</sup>. PBQ is a widely used scale, validated in several countries and easy to apply<sup>10,11,12,13</sup>. Although no study confirms its original factorial structure, all indications are that it has good internal consistency<sup>11</sup>.

This article aims to present the first phase of the translation process and cross-cultural adaptation of the Brazilian version of PBQ.

## Method

After requesting the authorization from the PBQ authors, the initial stages of the transcultural translation and adaptation process were carried out based on the protocols suggested by Borsa et al.<sup>14</sup> and Reichenheim & Moraes<sup>15</sup> (Figure 1).

For the evaluation of the conceptual and item equivalences, a bibliographic review of the construction process and other cross-cultural translations and adaptations of the PBQ were conducted. In addition, a review of the literature on mother-baby bonding theory and its correspondence with the Brazilian reality was made. This content was discussed with three experts in perinatal mental health with extensive clinical and research experience, who also analyzed the components of the PBQ and its applicability to Brazil.

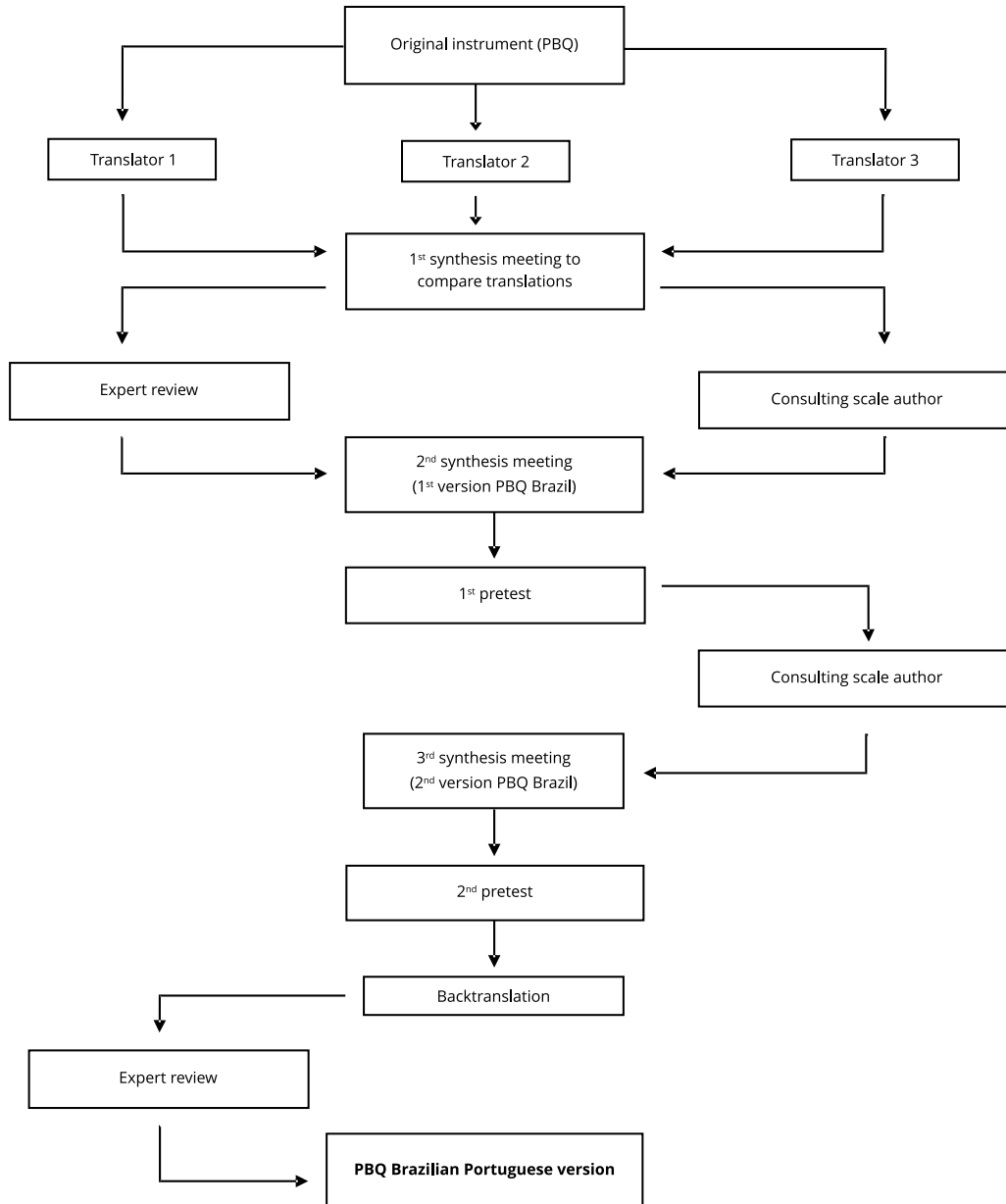
For evaluation of the semantic equivalences, the original instrument was translated by three professional translators, who are natives in the Portuguese language and English teachers. The synthesis was carried out by the researchers responsible for the adaptation of the instrument. Initially, the different translations were compared, and the discrepancies of meanings, concepts and contexts were analyzed. When there was no difference in meaning, the researchers chose the best translation. In cases in which significant disagreements of meaning occurred, one of the original authors of the instrument was consulted regarding the original meaning of the item.

This step generated the first version of the PBQ, used in a pretest conducted with 16 mothers over 18 years old with babies aging 1-6 months, living in a low-income community, who had appointments in a unit of the Family Health Strategy (FHS) in the city of Rio de Janeiro, Brazil. During the scale administration, when a woman expressed doubt regarding the meaning of an item, the interviewer explained the meaning of the item and asked for suggestions of synonyms. In addition, mothers were asked what they understood by certain items to verify the intended understanding. At the end, each woman was asked her opinion of the questionnaire.

Changes and adjustments were then made to improve the instrument, and a second version was administered to 14 women with babies from 1 to 7 months in the same health unit as the first pretest. Finally, the back-translation was performed by a native translator in British English and presented to one of the authors of the PBQ. The conceptual, item, semantic and operational equivalences of the

**Figure 1**

Flowchart of the first stage of the translation and cross-cultural adaptation of the *Postpartum Bonding Questionnaire* (PBQ) version in Brazilian Portuguese.



Brazilian final version of the PBQ were evaluated by specialists in psychometry and perinatal mental health together with the researchers and one of the authors of the original scale.

This study was conducted according to *Resolution n. 196/1996* of the Brazilian National Health Council, which sets the standards for research involving human subjects, issued by the Research Ethics Committee of the Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation, under CAAE 21982613.6.0000.5240. All the participants assigned a free and informed consent.

## Results

The literature review and the opinion of the specialists confirmed that both the latent variable and the PBQ scale were relevant to the Brazilian reality. From the initial translation, discrepancies in meaning between the translators in items 4 and 7 were observed. Based on the response of an author of the scale, the word “cuddle” was translated as “*ninar*” and “winds me up” for “*dar nos nervos*” (Table 1).

In the first pretest, problems were identified in the understanding of some items. In item 3, the first translation was “*Me sinto distante do meu bebê*”. However, many mothers understood this as only referring to physical distance. In order to emphasize the emotional connotation of this distance, the word “*emocionalmente*” was included (Table 1). Another item that showed divergence in understandings was item 23, for which the initial translation was: “*Sinto que a única solução é outra pessoa cuidar do meu bebê*”. Many mothers chose the “always” answer, because they had to go back to work and, therefore, had to leave their children with another caregiver or in a daycare setting. The consulted author of the scale explained that, in England, such problem of understanding for the original English language item did not occur. One of the factors that may have influenced this difference is that in Brazil, the return to work for many women occurs a few months after delivery, unlike English’s women, who tend to have a longer maternity leave period (Table 1).

One point observed was the difficulty for women to answer the items at six frequency levels. For this, an analogue scale was used for helping the mothers to respond using six frequency levels. In addition, the items were turned into questions, since that scale should be administered by an interviewer.

In the second application of the pretest, the adjustments that had been made improved the understanding of the items by the mother, confirming semantic equivalence with the original scale. The women were able to understand and answer all the questions and found the scale very interesting and easy to understand. Analog-scale response options were able to accurately capture the frequency of each question.

Experts in psychometrics and perinatal mental health considered that the final version of PBQ seems appropriate to assess the bond between mother and baby in the Brazilian context. The reverse translation was approved by one of the PBQ authors.

## Conclusion

This initial process of cross-cultural translation and adaptation of PBQ demonstrates the importance of evaluations of conceptual, item, semantic and operational equivalence to obtain an adequate instrument for assessing the postpartum mother and baby bond in the Brazilian context and to ensure equivalence with the original scale. Thus, it allows the generalization and comparability of its results with other sociocultural and language contexts.

At the end of this initial process of transcultural translation and adaptation, a first version of PBQ in Brazilian Portuguese (Table 1) was obtained, which seems to be promising. Studies in progress by the research group will complement the psychometric evaluation steps of the instrument, through the evaluation of test-retest reliability, dimensional structure and construct validity, thus continuing the validation process of PBQ in Brazilian Portuguese <sup>14,15</sup>. This instrument offers potential for future research and for use in perinatal mental health clinics.

**Table 1**Original version in English and final version of the items in Brazilian Portuguese *Postpartum Bonding Questionnaire* (PBQ).

Item	Original in English	Final version of the items in Brazilian Portuguese
Name	The Postpartum Bonding Instrument	<i>Instrumento de Avaliação do Vínculo Afetivo Mãe-Bebê no Pós-Parto</i>
Instruction	Please indicate how often the following are true for you. There are no "right" or "wrong" answers: Choose the answer which seems right in your recent experience.	<i>Vou fazer algumas perguntas sobre a sua relação com seu bebê. Não existem respostas "certas" ou "erradas". Escolha a resposta que represente melhor sua experiência atual com o seu bebê.</i>
1	I feel close to my baby.	<i>Com que frequência você se sente emocionalmente ligada ao seu bebê?</i>
2	I wish the old days when I had no baby would come back.	<i>Com que frequência você gostaria de voltar ao passado, ao tempo em que você ainda não tinha um bebê?</i>
3	I feel distant from my baby.	<i>Com que frequência você se sente emocionalmente distante do seu bebê?</i>
4	I love to cuddle my baby.	<i>Com que frequência você adora ninar o seu bebê?</i>
5	I regret having this baby.	<i>Com que frequência você se sente arrependida de ter tido seu bebê?</i>
6	The baby does not seem to be mine.	<i>Com que frequência você sente que esse bebê não parece ser seu?</i>
7	My baby winds me up.	<i>Com que frequência seu bebê te dá nos nervos?</i>
8	My baby irritates me.	<i>Com que frequência seu bebê te irrita?</i>
9	I feel happy when my baby smiles or laughs.	<i>Com que frequência você fica feliz quando seu bebê dá um sorriso ou uma gargalhada?</i>
10	I love my baby to bits.	<i>Com que frequência você sente que ama o seu bebê?</i>
11	I enjoy playing with my baby.	<i>Com que frequência você gosta de brincar com o seu bebê?</i>
12	My baby cries too much.	<i>Com que frequência o seu bebê chora demais?</i>
13	I feel trapped as a mother.	<i>Com que frequência você se sente presa como mãe, não tendo mais tempo e ou liberdade para fazer coisas que fazia quando não tinha o seu bebê?</i>
14	I feel angry with my baby.	<i>Com que frequência você fica com raiva do seu bebê?</i>
15	I resent my baby.	<i>Com que frequência você fica magoada com o seu bebê?</i>
16	My baby is the most beautiful baby in the world.	<i>Com que frequência você acha que seu bebê é o mais lindo do mundo?</i>
17	I wish my baby would somehow go away.	<i>Com que frequência você gostaria que houvesse uma maneira do seu bebê deixar de existir?</i>
18	I have done harmful things to my baby.	<i>Com que frequência você já fez coisas prejudiciais ao seu bebê?</i>
19	My baby makes me anxious.	<i>Com que frequência o seu bebê te deixa ansiosa?</i>
20	I am afraid of my baby.	<i>Com que frequência você sente medo do seu bebê?</i>
21	My baby annoys me.	<i>Com que frequência você sente que o seu bebê te incomoda?</i>
22	I feel confident when changing my baby.	<i>Com que frequência você se sente confiante quando troca fralda, roupas do seu bebê?</i>
23	I feel the only solution is for someone else to look after my baby.	<i>Com que frequência você se sente sem condições emocionais de cuidar do seu bebê e que, por isso, a única solução seria outra pessoa cuidar dele?</i>
24	I feel like hurting my baby.	<i>Com que frequência você sente vontade de machucar seu bebê?</i>
25	My baby is easily comforted.	<i>Com que frequência o seu bebê se acalma com facilidade?</i>

## Contributors

M. L. Baldisserotto drafted the idea, conception, and design of the work; wrote the manuscript and revised it critically; approved the final version to be published. M. M. Theme-Filha, R. H. Griep and J. Oates made substantial contributions to the conception and design of the work; drafted the work, revised it critically and approved the final version to be published. J. Renó Junior and J. P. Cavalsan drafted the work, revised it critically and approved the final version to be published.

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## Resumo

O estabelecimento do vínculo entre mãe e bebê no período pós-parto é importante para garantir a saúde física e psicológica de ambos. Esta artigo relata a primeira fase da tradução e adaptação transcultural ao contexto brasileiro do Postpartum Bonding Questionnaire (PBQ). Quatro aspectos de equivalência entre a escala original e a versão em português foram avaliados: as equivalências conceitual, semântica, operacional e de item. Foi realizada revisão de literatura, estudo da história do PBQ, tradução, avaliação por especialistas, retrotradução e pré-testes envolvendo 30 mães com crianças com até sete meses de idade, que utilizaram unidades básicas de saúde. Cada passo demonstrou a necessidade de ajustes, que foram feitos durante o processo de adaptação. Ao final do estudo, obteve-se uma versão do PBQ em português do Brasil equivalente à original, possibilitando estudos nacionais sobre o vínculo mãe-bebê e sua influência na saúde e uso nos serviços de saúde.

*Apego ao Objeto; Cuidado Pós-Natal; Escalas de Graduação Psiquiátrica; Inquéritos e Questionários*

## Resumen

El establecimiento del vínculo entre la madre y el bebé en el período posparto es importante para garantizar la salud física y psicológica de ambos. Este artículo informa la primera fase de la traducción y adaptación transcultural al contexto brasileño del Postpartum Bonding Questionnaire (PBQ). Se evaluaron cuatro aspectos de la equivalencia entre la escala original y la versión en portugués: las equivalencias conceptuales, semánticas, operacionales y de ítem. Se realizó una revisión de la literatura, el estudio de la historia de PBQ, la traducción, la evaluación de expertos, la retrotraducción y los exámenes previos que involucraron a 30 madres con niños de hasta siete meses que usaban una unidad de salud primaria. Cada paso demostró la necesidad de ajustes, que se realizaron durante el proceso de adaptación. Al final del estudio, se obtuvo una versión de PBQ en portugués de Brasil equivalente a la original, permitiendo estudios nacionales sobre el vínculo madre-bebé, y su influencia en la salud, y para su uso en los servicios de salud.

*Apego a Objetos; Atención Posnatal; Escalas de Valoración Psiquiátrica; Encuestas y Cuestionarios*

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