

Portuguese Validation of the Postpartum Learning Needs Inventory

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Abstract

Purpose: this study aim to validate the Postpartum Learning Needs inventory, to the Portuguese population.

Method: the PLN was translated and adapted into Portuguese, then given to a sample of 251 adolescent mothers, from 8 institutions in the metropolitan area of Lisbon. The exploratory factorial analysis was performed by the principal component analysis method with Varimax orthogonal rotation, as well as the internal consistency estimation.

Results: good internal consistency was obtained with 0.89. The factorial structure of the scale in the Portuguese version is constituted by two factors. The structure was slightly different from the original version without compromising the theoretical framework to be evaluated.

Conclusion: the scale revealed properties that attest to its quality, presenting high potential for use in other studies.

Keywords: Post Childbirth; Adolescent Mothers; Need for Knowledge; Validation; Inventory; Post-Partum; Nursing

Introduction

The postpartum period is a transition period in which there are many challenges for new mothers. At this stage, women are required to have new skills and information needed to manage their needs and those of the baby [1]. It was verified that both mothers and nurses reported different priority learning needs in the postpartum period. As the age of the mother, educational level, employability, economic ability and parity were significantly associated with learning needs and prioritization [2].

Adolescent mothers pointed to difficulties and obstacles in accessing social supports and information related to their health care, as well as their children [1]. The relationships of trust established by nurses with the community [3] are valued in this context.

However, there are specific concerns expressed by health care providers, related to some medical problems that do not appear within the first 24 hours after birth, related in particular to the fatigue of mothers in the postpartum period and insufficient knowledge in the care of the new-born [4] and short hospitalization, poor availability and fatigue of postpartum women present a challenge for nurses who are faced with a short time to care for these mothers, to promote motivation and self-confidence in their abilities [5].

Although there are other questionnaires aimed at the puerperal population, it can be adapted to the adolescents in the puerperium

in order to perceive according to their importance criteria the knowledge / information needs related to their self-care and to the care for your child. This scale will help not only mothers and nurses, in the prioritization of information, considered essential for the adaptation to the maternal role of these mothers.

Methods Study Design

We made a transversal and correlational study, which participants fulfilled a self-report measure in Portuguese language which was translated from the original. The data collection sheet was submitted to the Ethical Commission of the Portuguese Catholic University and granted there approval.

Participants

Two hundred and fifty one (N=251) adolescent mothers, between the ages of 13 and 19 (M=17, 53; SD=1.35).

Regarding at some variables, the majority of the sample has twelve years of schooling (19,7%), not employed (89,2%), has less than 500 Euros of meticulous income (43,8%), did not plan the pregnancy (71,3), accompanied by consultations (85,7%), by the family (mother or father) (55,3%) and 96,4% was Satisfied or Very Satisfied, with the teachings given by the nurses.

Measures

The PLN [6] was two dimensions: the first one consists of 22 items related to maternal self-care and the second dimension has 28 items related to baby care. Using a 4-point Likert scale ranging from 1 (not

important) to 4 (very important), the mothers were asked to classify the importance of the referred items relative to the prioritization of what they value most to know. The total score for each item of maternal topics and PLN children's topics was divided by the total number of items to calculate the total average score for each of the maternal items and the infant items.

Procedure

Participants were recruited in the maternity hospitals of the Metropolitan Area of Lisbon. After assessing the inclusion criteria in the study, mothers and nurses who met the criteria for inclusion in the sample and who agreed to participate were assured of privacy, anonymity, confidentiality of the response, and indication of the possibility of interruption at any time of response. After this information they were invited to sign the Free and Informed Consent. Each mother was interviewed in her room, which lasted approximately 10 minutes. Data were collected between June 2013 and May 2015.

Results

Exploratory factorial analysis at the PLN scale (table 1) was performed using the main components analysis method, with Varimax rotation; a factorial structure with 1 dimension (eigenvalues ≥ 1.00 and element saturation in factor $\geq .35$) was identified. The author of the scale does not mention psychometric qualities in his article. In this analysis, 251 participants were considered.

In the first factorial solution found, the structure was unclear, since we had saturating items with low value. Faced with this factor structure, we consider that the items "The next menstrual period" and "What should or should be taken from medications" should be removed from this instrument, without change the theoretical formulation and maintain the psychometric qualities.

Table 1: Factor analysis of the postpartum learning needs scale

Items	Learning Needs Post childbirth
Bladder function	,768
Care of episiothoria	,728
Suture / abdominal incision care	,728
Emotional,	661
Nutrition / Food	,660
Breast Care,	,658
Signs and Symptoms of Postpartum Complications	,655
Family Planning / Contraception	,642
Sexuality (Intercurrences / sexual changes)	,630
Self-medication	,630
Lochia	,606
Intestinal functioning	,562
Take a bath	,547
Perineal care	,545
Postpartum fatigue / fatigue	,509
Strategies to adopt in the satisfaction of motherhood at home,	,441
Relationship status	,421

Time management	,354
Physical Exercise, for postpartum recovery	,327
Eigenvalue	7.14
Explained Variance	35.68%

We can also confirm the one-dimensional existence, with the total of explained variance of 35.68%. The next step was to apply the Keizer-Meyer-Olkin (KMO) test to determine the suitability of the sample to determine if it is possible to perform the factor analysis. We found a value of 0.81 situated in an interval considered as a suitable degree of variance [7].

Priorities in perceived postpartum learning of mothers

Table 3 presents the average scores for maternal postpartum learning needs perceived by the mothers. They reported the signs and symptoms of postpartum complications, perineal care, lochia, breast care and the couple relationship, as the highest priority of learning needs.

Table 3: Priority items referred by mothers regarding self-care

Item	Mean	Standard Deviation
Five more items		
Signs / Symptoms Postpartum	3,54	,62
Complications	3,54	,51
Perineal care	3,50	,52
Lochia	3,50	,67
Breast Care Relationship status	3,29	,54
Five items less referred		
Time management	3,10	,675
Physical Exercise (postpartum recovery)	3,08	,818
Bladder function	3,05	,688
Sexuality (Intercurrences / sexual changes)	2,99	,691
Cultural practices in the postpartum period	2,91	,708

The lower priority learning needs reported by them were "Time management, physical exercise (postpartum recovery), bladder function, sexuality (intercourse / sexual changes), and postpartum cultural practices".

Conclusions and Implications

The results confirm that PLN was adequately adapted to the Portuguese teenage mothers. Psychometric qualities show adequate values: internal consistency ($\alpha = 0.89$). This result indicates that the scale presented one-dimensional behaviour in a sample of mothers and is comparable to results of other studies [6, 8] that have already used PLN as the original ($\alpha = 0.93$) the factor analysis of the scale.

PLN is not a predictive tool for assessing learning needs in the strict sense, but it serves as an indicator of possible priorities and should be part of a broader assessment that encompasses biopsychosocial factors for each mother within the context of life.

Future studies should be performed in order to assess the sensitivity of this scale after intervention.

One of the limitations of this study is related to the age of the mothers that can be an influencing factor in both the existing knowledge and the priorities mentioned.

The present study fulfilled with the proposed objectives of cross-cultural adequacy the psychometric evaluation of PLN in the Portuguese population. Was applicable to the adolescent mother's population, and from her point of view the results showed that it is adequate from a semantic and linguistic. The use of a standardized instrument will facilitate the reproducibility of the results, guide and plan and the effectiveness of the interventions and allow the comparison of results between different populations.

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