JOGNN

RESEARCH

Development and Assessment of a Questionnaire to Study Protection, Promotion, and Support of Breastfeeding

Rosa M. Bermejo, Pedro Parra-Hidalgo, Antonio Oliver-Roig, M. Dolores Hidalgo, Carmen Arellano-Morata, and Ricardo García-de-León-González

Correspondence
Rosa M. Bermejo, PhD, University of Murcia, Campus de Espinardo, 30100 Murcia, Spain.
rbermejo@um.es

Keywords
Baby-Friendly Initiative
behavior and behavior mechanisms
breastfeeding
health care providers
psychometrics
questionnaires
staff attitudes

ABSTRACT

Objective: To develop an instrument to measure variables that influence health care professionals' behavior with regard to the protection, promotion, and support of breastfeeding, especially one that related to the Baby-Friendly Hospital Initiative (BFHI), and to conduct a psychometric assessment.

Design: Cross-sectional study.

Setting: Two public health departments in eastern Spain.

Participants: A convenience sample of 201 maternity and primary care professionals.

Methods: The Questionnaire of Professional Breastfeeding Support of the Healthcare Quality Management Program of the Spanish Region of Murcia (QPBS-EMCA) was developed using the theory of reasoned action as a conceptual framework and the Global Criteria for evaluating implementation of the BFHI. It comprises 4 scales on beliefs, attitudes, subjective norms, and behavioral intention. The development process included item assessment and selection based on expert judgment and statistical criteria. The QPBS-EMCA scales were assessed for reliability and validity, including internal consistency, principal components factor analysis, criterion-related validity, and comparison of contrasted groups.

Results: The Beliefs, Attitudes, and Subjective Norms Scales were multidimensional, whereas the Behavioral Intention Scale was unidimensional. Cronbach's alpha coefficients ranged from .65 to .81. Total scores for the Beliefs, Attitudes, and Subjective Norms Scales predicted scores for the Behavioral Intention Scale. Scores for the different QPBS-EMCA scales were related to professionals' previous breastfeeding training, interest in new training, and appraisal of breastfeeding policy in the workplace.

Conclusion: The psychometric characteristics of the QPBS-EMCA render it suitable for evaluation of professionals' beliefs, attitudes, subjective norms, and behavioral intention in relation to breastfeeding and could be useful in health care facilities implementing quality improvement processes based on the BFHI.

JOGNN, 45, 166–179; 2016. http://dx.doi.org/10.1016/j.jogn.2015.12.002

Accepted October 2015

Rosa M. Bermejo, PhD, is a lecturer, University of Murcia, Murcia, Spain.

(Continued)

The authors report no conflict of interest or relevant financial relationships.

Breastfeeding is believed to provide the best nutrition during the first years of life because of its substantial short- and long-term health benefits for mothers, infants, and young children (Johnston, Landers, Noble, Szucs, & Viehmann, 2012). The World Health Organization recommended exclusive breastfeeding for the first 6 months and breastfeeding with complementary foods up to at least 2 years of age (Saadeh, 2003). In Spain, as in most European countries (Cattaneo et al., 2010), breastfeeding rates are far below these recommendations, and only 46.9% of Spanish children receive breast milk at the age of 6 months (Spanish Ministry of Health and Social Policies, 2013). Consequently, the protection, promotion, and support of breastfeeding are regarded as public health priorities in Europe, and in Spain the National Health System Quality Plan urges the use of efficient breastfeeding support practices (Spanish Ministry of Health and Social Policies, 2009).

Early breastfeeding cessation is usually the result of a combination of various factors at individual, group, and societal levels (Oliver-Roig, 2013). However, the

health system is one of the factors that most negatively affects low breastfeeding rates because of the influence that professional interventions during the first days of life have on the establishment of breastfeeding. Practices such as the separation of mothers and infants after birth, the recommendation of restricted breastfeeding, the use of pacifiers before breastfeeding is well established, giving water or formula supplements without medical indication, inappropriate recommendations for discontinuing breastfeeding, the distribution of free formula samples, professionals' lack of clinical training and skills for managing breastfeeding problems, and inconsistent or inadequate information on breastfeeding are negatively related to breastfeeding duration (Benoit & Semenic, 2014; DiGirolamo, Grummer-Strawn, & Fein, 2008; Oliver-Roig, 2013).

To improve hospital practices, researchers demonstrated that implementation of the Baby-Friendly Hospital Initiative (BFHI) is one of the most effective interventions to affect subsequent overall improvement in breastfeeding rates (García-de-León-González et al., 2010; Lillehoj & Dobson, 2012; Patel et al., 2014). The BFHI defined the quality standards that are meant to replace health facility practices that hinder the establishment and continuation of breastfeeding. The accreditation criteria of the BFHI include development of a written breastfeeding policy, education for all health care staff in the skills necessary to implement this policy, information for all pregnant women about the benefits and management of breastfeeding, implementation of evidence-based practices proven to increase breastfeeding, avoidance of health facility–based marketing of infant formula, and encouragement for the establishment of breastfeeding support groups (World Health Organization & United Nations International Children's Emergency Fund, 2009).

Industrialized countries have few accredited baby-friendly hospitals compared with the rest of the world (Semenic et al., 2012); in Spain, only 16 hospitals, which attend less than 5% of Spanish births, have BFHI accreditation (Spanish BFHI Association, 2015). This illustrates the gap between evidence-based care recommendations and current care practices. The study of contextual features that act as barriers or facilitators to the adoption of evidence-based practices in health care is a key priority in the field of implementation science (Eccles et al., 2009).

Health care providers' beliefs and attitudes concerning breastfeeding and the Baby-Friendly Hospital Initiative are the most frequently mentioned obstacles when an implementation process is described.

Several types of obstacles to BFHI implementation have been identified (Semenic et al., 2012). *Sociopolitical obstacles* include aspects related to the broader contexts such the aggressive marketing practices of infant formula companies, lax government adherence to *The International Code of Marketing of Breast Milk Substitutes* (the *Code*; World Health Organization, 1981), and sociocultural infant feeding norms that favor formula feeding. *Organizational obstacles* refer to the structures and processes within health care facilities. These include barriers such as insufficient funding, difficulties of the staff to provide breastfeeding support or attend training sessions, and hospital routines that interfere with breastfeeding. Finally, *individual obstacles* pertain to the knowledge, attitudes, and practices of health care workers or health care users related to breastfeeding.

Health care professionals play critical roles in quality improvement interventions based on the BFHI because substantial changes in patterns of care are involved (Schmied et al., 2014; Taylor, Gribble, Sheehan, Schmied, & Dykes, 2010; Weddig, Baker, & Auld, 2011). A low level of knowledge and neutral or negative attitudes about breastfeeding or the BFHI, reluctance to promote breastfeeding out of concern about making mothers feel guilty, overuse of infant formula, and adherence to outdated practices to support breastfeeding have been identified as barriers to implementation of the BFHI at the individual level of health care providers (Bartick, Stuebe, Shealy, Walker, & Grummer-Strawn, 2009; Benoit & Semenic, 2014; Semenic et al., 2012).

Existent BFHI assessment tools (World Health Organization & United Nations International Children's Emergency Fund, 2009) and indicators proposed to assess the quality gaps in breastfeeding care (Bartick et al., 2009; de Bruin-Kooistra, Amelink-Verburg, Buitendijk, & Westert, 2012; Groene, Klazinga, Kazandjian, Lombrail, & Bartels, 2008) are useful to determine the degree of implementation of quality standards in a health facility, but they provide little information on staff adherence to the change process.

Pedro Parra-Hidalgo, MD, is Deputy Director-General of Planning, Quality and Research, Healthcare Quality Management Program of the Spanish Region of Murcia, Regional Health and Consumer Authority of Murcia, Murcia, Spain.

Antonio Oliver-Roig, PhD, is an assistant professor, Department of Nursing, University of Alicante, Alicante, Spain.

M. Dolores Hidalgo, PhD, is a full professor, University of Murcia, Murcia, Spain.

Carmen Arellano-Morata, RN, is a health care quality management technician, Healthcare Quality Management Program of the Spanish Region of Murcia, Regional Health and Consumer Authority of Murcia, Murcia, Spain.

Ricardo García-de-León-González, is a pediatrician and Chief of the Pediatric Service, Department of Pediatrics, Virgen del Castillo Hospital, Yecla, Spain.