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Translation and validation of the Breast-feeding Self-efficacy Scale into Turkish

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ABSTRACT

Background: recent research indicates that most mothers give up breast feeding their infants early in the postpartum period due to difficulties with breast feeding and the belief that they are inefficient at breast feeding. Using self-efficacy theory as a conceptual framework to measure breast-feeding confidence, a Turkish version of the Breast-feeding Self-Efficacy Scale (BSES) was developed and psychometrically tested among Turkish mothers.
Objective: to translate the BSES into Turkish and assess its psychometric properties among breast-feeding mothers.
Design: a methodological study to assess the reliability, validity and predictive value of the BSES.
Setting: women were recruited from two mother and child health-care units in the Altındağ district in Izmir, Turkey between 2006 and 2007, and followed up two months post partum.
Participants: 165 Turkish-speaking women.
Methods: following back-translation, questionnaires were completed in hospital and at home by postnatal women. The BSES was administrated at one, four and eight weeks post partum to determine the method of infant feeding. The interviews and home visits were conducted in mothers' own homes at a mutually convenient time.
Findings: the psychometric assessment method used to validate the original BSES (English version) was replicated with the translated Turkish version. The well-concordance coefficient of Kendall's W scale was 0.227, $p < 0.01$ and the test–retest reliability coefficient was 0.45. The consistency of the scale in terms of temporal process was efficient ($p = 0.00$). Cronbach's alpha coefficient was 0.91 and 0.92 at one and four weeks post partum, respectively, and the reliability of the scale was found to be high ($0.80 \leq \alpha < 1.00$).
Key conclusions and implications for practice: the Turkish version of the BSES can be used to determine which mothers are at risk of giving up breast feeding early in the postpartum period, and the subjects they need to learn about breast feeding.

Introduction

Breast milk is the most appropriate source of nutrition during infancy; its contents change according to the needs of a newborn infant, it provides protection against infections, it meets the infant's physiological and psychosocial needs in the first four to six months of life, and it is economical (Vinther and Helsing, 1997; Tunçel et al., 2005; Aidam et al., 2006; Groleau et al., 2006).

The value of providing infants with human milk has long been understood. Numerous studies have provided robust evidence that breast feeding reduces morbidity and mortality during the first year of life (Torres et al., 2003).

The Innocenti Declaration on the protection, promotion and support of breast feeding was produced and used by participants at the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) Policy Makers Meeting on 'Breast feeding in the early 1990s: a global initiative' in Italy in 1990. Since the adoption of the original Innocenti Declaration, remarkable progress has been made in improving infant and young child feeding practices worldwide (World Health Organization and United Nations Children's Fund, 1999; Üstüner and Bodur, 2009).

Nevertheless, inappropriate feeding practices, suboptimal or no breast feeding and inadequate complementary feeding remain the greatest threat to child health and survival globally. Improved breast feeding alone could save the lives of more than 3500 children every day; more than any other preventive intervention (World Health Organization and United Nations Children's Fund, 1999).

WHO has also published breast-feeding recommendations which indicate that all infants should be exclusively breast fed for the first six months post partum, with continued breast feeding until one year of age or more (Dennis, 2002; Lawrence, 2002; Dai and Dennis, 2003; Aluş et al., 2008). It is also suggested that breast feeding should be continued with supplementary foods from six months until two years of age (Özmert, 2005; Aidam et al., 2006).

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According to UNICEF, while breast-feeding initiation rates are no longer declining at the global level, only 38% of children under six months of age in the developing world are exclusively breast fed, and only 39% of children aged 20–23 months benefit from the practice of continued breast feeding. Additional recent evidence also indicates that approximately 50% of children are exclusively breast fed in just 28 countries worldwide (United Nations Children's Fund, 2007, 2009).

In Turkey, almost all infants are breast fed in the first months of the postpartum period, but this rate decreases to 66% by the end of the first year. Most mothers in Turkey initiate breast feeding and continue to breast feed until six months post partum, but the majority of infants are not breast fed exclusively. The percentage of infants who are breast fed exclusively is 27.3% up to three months of age, and this decreases to 7.6% for infants aged four to six months (Turkish Demographic and Health Survey, 2003).

Data from the Turkish Demographic and Health Survey indicate that breast feeding in Turkey commences relatively late after birth. Only 39% of breast-fed infants received their first breast feed in the first hour post partum, and 27% did not receive their first breast feed in the first 24 hours post partum (Turkish Demographic and Health Survey, 2008). These percentages are lower than those from the 2003 survey, showing that Turkish mothers are still rejecting the practice of early breast feeding (Turkish Demographic and Health Survey, 2003, 2008).

The rates for continued breast feeding are insufficient worldwide (Yenal and Okumuş, 2003). As a consequence, the breast-feeding status of mothers should be evaluated soon after childbirth, and mothers should be given special training and support to prevent breast-feeding problems by helping them to gain self-efficacy and increase breast-feeding success. Successful breast feeding can be achieved through the support and education of mothers (Lawrence, 2002; Ingram et al., 2004; Moore and Coty, 2006). As such, there is a need for objective diagnostic tools that can be applied quickly (Yenal and Okumuş, 2003).

Researchers have shown that maternal confidence is an important factor in the continuation of breast feeding. The reliability of the Breast-feeding Self-efficacy Scale (BSES) has been evaluated by considering the need for a scale which provides a standard and objective evaluation in terms of breast-feeding criteria among health-care personnel, directs educational planning, and is suitable for use in Turkey. The purpose of this methodological study was to develop and conduct a preliminary psychometric assessment of an instrument to measure confidence in new breast-feeding mothers.

It is thought that the BSES will contribute greatly to the determination of mothers' self-efficacy status, which is one of the most important factors affecting breast-feeding status, and to the gaining functionality of the consultation period which will enable the development of self-efficacy.

The BSES was developed and psychometrically tested to measure breast-feeding confidence (Dennis and Faux, 1999). Replicating this original research, further methodological studies have been conducted in Canada (Dennis, 2003), Australia (Blyth et al., 2002; Creedy et al., 2003), China (Dai and Dennis, 2003) and Puerto Rico (Molina Torres et al., 2003).

Breast-feeding confidence

Breast-feeding confidence describes a woman's belief or expectation that she possesses the knowledge and skills to successfully breast feed her infant (Chezem et al., 2003).

Women who are confident in their ability to breast feed are typically successful. In a study conducted by O'Campo et al. (1992), women who described themselves as 'somewhat confident' in the prenatal period had three times the risk of weaning during the first six months compared with women who described themselves as 'very confident' (O'Campo et al., 1992; Chezem et al., 2003).

These expectations are based on information gained from prior breast-feeding experience, observation of other women breast feeding, support and encouragement from individuals whose opinions are respected, and the physiological reaction to the prospect or act of breast feeding (Dennis and Faux, 1999).

Breast-feeding confidence has also been associated with maternal perceptions of insufficient milk supply; a leading cause of artificial milk supplementation and decrease in breast-feeding level (Hill and Humenick, 1996; Dai and Dennis, 2003). If health professionals are to effectively improve low breast-feeding duration rates, they need to identify high-risk women and the predisposing factors that are amenable to intervention (Blyth et al., 2002; Dennis, 2003). One possible modifiable variable is breast-feeding confidence (Loughlin et al., 1985; Buxton et al., 1991; O'Campo et al., 1992; Hill and Humenick, 1996; Ertem et al., 2001). To provide a theoretical perspective of breast-feeding confidence and guide the development and evaluation of confidence-enhancing interventions, the breast-feeding self-efficacy theory was developed by Dennis (1999) through the application of Bandura's (1994) social cognitive theory (Blyth et al., 2002).

Self-confidence has been shown as an important predictor for breast-feeding duration. It is known that the majority of mothers give up breast feeding in the early postpartum period in many countries: 'Buxton et al. reported that 27 percent of women with low maternal confidence in the prenatal period discontinued breast feeding within the first postpartum week compared with only 5 percent of highly confident women' (Dai and Dennis, 2003).

Similarly, Papinczak and Turner (2000) found that mothers who were unable to establish lactation reported significantly lower levels of breast-feeding confidence than mothers who breast fed for more than six months. In a longitudinal study of 64 low-income mothers, Ertem et al. (2001) reported that breast-feeding confidence rather than perceived problems was associated with the early termination of breast feeding.

The most common reasons for the early termination of breast feeding are that mothers do not believe they are efficient at breast feeding, they have difficulties with breast feeding and they have trouble coping with mental health problems, especially in the postpartum period (Dennis, 2003; Thome et al., 2004; Wojnar, 2004; Akşit, 2005). Factors such as personality traits, mother's age, socio-economic status, ethnic profile, self-confidence and prenatal knowledge, attitude towards breast feeding, use of supplementary food a few days after birth, insufficiency of family support and experience of breast feeding are known to play a part (Blyth et al., 2002; Dennis, 2002; Kaya et al., 2004). The breast-feeding self-efficacy theory was developed (Dennis, 1999) to conceptualise breast-feeding confidence, based on Bandura's (1994) social learning theory. Bandura advocated a behaviour-specific approach to the study of self-efficacy, arguing that a measure of general self-efficacy in overall ability would be inadequate for tapping an individual's efficacy for managing tasks associated with a specific behaviour. Thus, to measure breast-feeding self-efficacy, an instrument specific to tasks associated with breast feeding must be used (Blyth et al., 2002).

Breast-feeding self-efficacy theory

Self-efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome. According to Bandura (1994), self-efficacy is a dynamic cognitive process in which an individual evaluates his or her ability towards the performance of a given task and an important health-related behaviour predictor (Bandura, 1994; Akkoyunlu et al., 2005). According to Dennis and Faux (1999), breast-feeding self-efficacy refers to a mother's perceived ability to