



ELSEVIER

Contents lists available at ScienceDirect

## Midwifery

journal homepage: [www.elsevier.com/midw](http://www.elsevier.com/midw)

## The development of a new breast feeding assessment tool and the relationship with breast feeding self-efficacy

Jenny Ingram, BSc, PhD (Senior Research Fellow)<sup>a,\*</sup>, Debbie Johnson, RN, RM, BSc (Research Assistant)<sup>a</sup>, Marion Copeland, RM, ADM, IBCLC (Infant Feeding Specialist Midwife)<sup>b</sup>, Cathy Churchill, RN, RM, IBCLC (Breastfeeding Lead Nurse NICU)<sup>b</sup>, Hazel Taylor, BSc, MSc (Medical Statistician)<sup>c</sup>

<sup>a</sup> Centre for Child & Adolescent Health, School of Social & Community Medicine, University of Bristol, Bristol BS8 2BN, UK

<sup>b</sup> Southmead Hospital, North Bristol NHS Trust, Bristol BS10 5NB, UK

<sup>c</sup> Research Design Service-South West, Education Centre, University Hospitals Bristol NHS Foundation Trust, Bristol BS2 8AE, UK

## ARTICLE INFO

## Article history:

Received 8 February 2014

Received in revised form

27 June 2014

Accepted 3 July 2014

## Keywords:

Breast feeding

Self-efficacy

Frenotomy

Bristol Breastfeeding Assessment Tool

## ABSTRACT

**Objective:** to develop a breast feeding assessment tool to facilitate improved targeting of optimum positioning and attachment advice and to describe the changes seen following the release of a tongue-tie.  
**Design:** development and validation of the Bristol Breastfeeding Assessment Tool (BBAT) and correlation with breast feeding self-efficacy.

**Setting:** maternity hospital in South West England.

**Participants:** 218 breast feeds (160 mother–infant dyads); seven midwife assessors.

**Findings:** the tool has more explanation than other tools to remind those supporting breast-feeding women about the components of an efficient breast feed. There was good internal reliability for the final 4-item BBAT (Cronbach's alpha=0.668) and the midwives who used it showed a high correlation in the consistency of its use (ICC=0.782).

Midwives were able to score a breast feed consistently using the BBAT and felt that it helped them with advice to mothers about improving positioning and attachment to make breast feeding less painful, particularly with a tongue-tied infant. The tool showed strong correlation with breast feeding self-efficacy, indicating that more efficient breast feeding technique is associated with increased confidence in breast feeding an infant.

**Conclusions:** the BBAT is a concise breast feeding assessment tool facilitating accurate, rapid breast feeding appraisal, and targeting breast feeding advice to mothers acquiring early breast feeding skills or for those experiencing problems with an older infant. Accurate assessment is essential to ensure enhanced breast feeding efficiency and increased maternal self-confidence.

**Implications for practice:** the BBAT could be used both clinically and in research to target advice to improve breast feeding efficacy. Further research is needed to establish its wider usefulness.

© 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

## Introduction

Breast feeding rates in the UK remain below World Health Organisation guidelines and the most recent Infant Feeding Survey reported that around 55% of mothers were giving breast milk to their infants at six weeks, with only 34% still partially or exclusively breast feeding by six months (Infant Feeding Survey, 2010). Exclusive breast feeding rates are even lower at around 23% at six

weeks and only 1% by six months. The drop off in rates is mostly explained by early feeding difficulties causing introduction of bottles, with the highest levels of problems being experienced by those who used a combination of breast feeding and artificial milk in a bottle. The survey reported the most common reasons for introducing bottles and stopping breast feeding in the first week included the infant not latching on properly, mothers having painful breasts or nipples and feeling that they had 'insufficient milk' (Infant Feeding Survey, 2010).

Tongue-tie may be a contributing factor to mothers' experiencing breast feeding problems, as difficulties with both breast and bottle feeding have been reported in 25–44% of infants with this condition (Messner et al., 2000; Griffiths, 2004; Ricke et al., 2005;

\* Corresponding author.

E-mail addresses: [jenny.ingram@bristol.ac.uk](mailto:jenny.ingram@bristol.ac.uk) (J. Ingram), [d.johnson@bristol.ac.uk](mailto:d.johnson@bristol.ac.uk) (D. Johnson), [marion.copeland@nbt.nhs.uk](mailto:marion.copeland@nbt.nhs.uk) (M. Copeland), [cathy.churchill@nbt.nhs.uk](mailto:cathy.churchill@nbt.nhs.uk) (C. Churchill), [hazel.taylor@uhbristol.nhs.uk](mailto:hazel.taylor@uhbristol.nhs.uk) (H. Taylor).

<http://dx.doi.org/10.1016/j.midw.2014.07.001>

0266-6138/© 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Segal et al., 2007). These studies noted a range of difficulties including poor latch, nipple trauma and inability to feed continuously, all problems which can contribute to mothers feeling that they have insufficient milk and consequently shortening the duration of breast feeding (Marmet et al., 1990; Notestine, 1990). The surgical division of tongue tie (frenotomy) in the early postnatal period aims to improve breast feeding and has become increasingly popular in the UK in recent years, however there is widespread controversy over its effectiveness (Messner and Lalakea, 2000).

Research addressing this issue is hampered by a lack of effective tools both to assess breast feeding and the severity of tongue-tie in sufficient detail. A systematic review (Webb et al., 2013) identified studies that reported the outcomes of frenotomy on breast feeding and documented the objective scoring tools that were used to assess breast feeding. LATCH and IBFAT were the main tools used. The LATCH tool (Jensen et al., 1994) was modelled on the Apgar score with five parameters (latch, audible swallowing, nipple type, comfort, hold) each scoring 0–2, and total scores have been shown to correlate positively with duration of breast feeding (Riordan et al., 2001). The 4-item Infant Breast Feeding Assessment Tool (IBFAT) was developed in 1988 to measure an infant's readiness to feed, rooting, fixing and sucking behaviours during a breast feed (Matthews, 1988). The LATCH score was used by four studies (Dollberg et al., 2006; Srinivasan et al., 2006; Geddes et al., 2008; Berry et al., 2012) in the Webb review to compare feeding before and after frenotomy and whilst two studies showed significant improvements post treatment, two did not. Buryk et al. (2011) used the IBFAT and reported significant improvement in breast feeding scores. However others have suggested that these assessment tools are too broad to show differences in pre- and post-frenotomy breast feeding scores and that other more subjective assessment should be used (Griffiths, 2004).

In our randomised trial of 107 women comparing breast feeding scores before and after frenotomy we also used both LATCH and IBFAT and found no differences in scores between the intervention (frenotomy performed) and comparison groups (Emond et al., 2013). We concluded that these tools were not sensitive enough to record the changes in breast feeding that might occur following frenotomy, particularly in the details of optimum positioning and attachment to the breast.

Psychosocial factors have been shown to have positive correlation with the duration of exclusive breast feeding. A review exploring the psychological correlates of exclusive breast feeding reported on eight studies (de Jager et al., 2013), several of which examined the effects of maternal self-efficacy on breast feeding. Theoretically based on Bandura's (1977) social cognitive theory, the Breast feeding Self-Efficacy Score (short-form) (BSES-SF) is an instrument that measures a mother's confidence in her ability to breast feed her new infant, which can be used clinically to identify those at high risk of discontinuing breast feeding (Dennis, 2003) and to assess breast feeding behaviour. The BSES-SF has good reliability and validity and has been translated into other languages and used in a range of populations (as reviewed by Ho and McGrath (2010)). It is important because mothers who feel self-confident about their ability to breast feed successfully are more able to overcome barriers to breast feeding (Entwistle et al., 2010). Studies exploring the ability of the BSES-SF to predict the duration of breast feeding, independently of other factors (Blyth et al., 2002; Baghurst et al., 2007) have found a strong association between high early scores and longer breast feeding duration.

During our trial study period we were able to develop and test a tool which we felt might more accurately reflect the effectiveness of a breast feed, the Bristol Breastfeeding Assessment Tool (BBAT). We used the BBAT alongside the LATCH and IBFAT and

compared the observed efficiency of breast feeding with how confident mothers' felt with breast feeding using the BSES-SF. This paper reports on the development of the BBAT and its comparison with the previous breast feeding assessment tools.

The study was approved by the Central Bristol Research Ethics Committee (South West).

## Methods

### *Development, analysis and validation of the Bristol Breastfeeding Assessment Tool (BBAT)*

In developing the BBAT, five infant feeding midwives/breast feeding experts discussed the elements of the existing breast feeding assessment tools and decided to use some elements that were similar to two LATCH items (swallowing, comfort) and one from the IBFAT (sucking) and added two new items to score positioning and attachment based on research evidence (Ingram et al., 2002) and WHO Baby Friendly Initiative breast feeding practice principles (www.unicef.org/BabyFriendly/healthprofessionals/going-baby-friendly/basic knowledge and skills).

Fig. 1 shows the final version of the Breast feeding Assessment Tool with full description of the scoring. The tool elements included were:

- (1) **Positioning:** the infant should be well supported; tucked against mother's body; lying on his/her side /neck not twisted; nose opposite the nipple; and the mother confident in handling the infant. Achieving all of these and no advice being needed was scored as good (2).
- (2) **Attachment:** the infant showed positive rooting; had a wide open mouth; achieved a quick latch with a good amount of breast tissue in the mouth; and stayed attached with a good latch throughout feed. Achieving all of these points scored 2.
- (3) **Sucking:** able to establish effective sucking pattern on both breasts (initial rapid sucks then slower sucks with pauses); infant ends feed. A score of 2 was given if an effective sucking pattern was achieved.
- (4) **Swallowing:** audible, regular soft swallowing with no clicking was given a score of 2.
- (5) **Comfort:** mother reports breasts and nipples comfortable; no visible damage. This combination of mother report with visible inspection of the nipples was only scored as 2 if she reported complete comfort with no obvious damage. 1 was scored if the mother reported some discomfort and there was some damage or soreness to the nipple visible; 0 was scored if the mother reported severe discomfort and there was moderate or severe nipple damage visible.

The main aim was to develop an assessment tool that could be used effectively and consistently by midwives, lactation consultants, breast feeding counsellors and others assessing breast feeding as a measure of breast feeding proficiency both for research studies and in practice more generally. We also wanted the tool to enable comparison before and after a procedure such as frenotomy, or to compare a breast feeding dyad at different time points, whilst keeping it simple and easy to use.

During the BBAT assessments, 218 breast feeds were documented. One hundred and six breast feeds were observations from 48 mother–infant dyads who were part of the feasibility trial (Emond et al., 2013) and 112 mother–infant dyads assessed after recruitment to the trial had been completed. Some of the assessments in the trial were for the same infant at different time points after frenotomy or several days later. These were considered to be independent as a subsequent observation was assessed 'blind' by a

Download English Version:

<https://daneshyari.com/en/article/10515624>

Download Persian Version:

<https://daneshyari.com/article/10515624>

[Daneshyari.com](https://daneshyari.com)