By Emily Norton, DC, IBCLC

Author: Emily Norton, DC, IBCLC, lead tutor AECC-BU Breastfeeding Clinic, Bournemouth, England, UK Email: dremilynorton@googlemail.com Key words: breastfeeding, chiropractic

Introduction

There is increasing interest in the collection of data from routine practice. This provides information from a key area of Evidence Based Practice, the patient's point of view. All chiropractic offices, no matter how small, can participate in improving the understanding of their patient's viewpoint. Nowhere is this more important than in collecting the mother's perception when treating the infant with suboptimal breastfeeding. This protocol for a service evaluation is presented so that other clinicians can see that this type of research can be implemented into routine practice and lead to a better understanding of what is important to the mother and her satisfaction rate with the clinical encounter.

Background

Breastfeeding has been shown to have numerous health benefits for both mother and child. This includes the child's decreased risk for: respiratory and ear infections; atopic dermatitis; gastroenteritis; necrotizing enterocolitis, type 2 diabetes, and sudden infant death syndrome.¹ In the mother, breastfeeding reduces the risk for breast cancer.²

Because of these positive effects, Healthy People 2020 Breastfeeding Objectives recommends to 'Increase the proportion of infants who are breastfed' in its goals.³ Concurrently, the UK Baby Friendly Initiative (BFI) is undertaking a project that identifies what actions are required to improve and sustain scaling up programs that promote breastfeeding rates.⁴ This project has stemmed from the Call to Action campaign by UNICEF and BFI collaborative which as part of a global partnership with the World Health Organization (WHO) addresses public services to better support families with feeding their children to get the best possible start to life.⁵ One important aspect of the international campaign to improve breastfeeding rates is to pay attention to the needs of mothers. All clinicians and clinical services need to support this vulnerable population through the use of evidence-based practice.

Evidence-based practice is patient-centered care that is essential for all clinicians.⁶ In order for health care workers to be evidence-based practitioners, they need to consider the best available evidence, consider their clinical experience and hear and understand the patient's choice and values. It is that final component that is often left behind when evidence-based practice is being translated into clinical practice. Asking the patient (in this case the parent) is why this study is important. The focus of this study is the perceptions of the mother who attends the clinic. Her voice is essential to providing the final component of evidencebased practice in order to be translated into best clinical practice.⁶

It is well understood that breastfeeding is intimately connected with growth and development, settling, bonding and attachment in the earliest relationships.⁴ Families often consult chiropractors for babies who are unsettled and have difficulty breastfeeding.⁷ It is also known that lactation difficulty is one of the most common reasons breastfeeding is not initiated or sustained.⁸ Manual therapy has modest evidence indicating it can solve an infant's biomechanical problems that either cause or lead to lactation difficulties.⁹

There is currently insufficient high-quality evidence that suggests chiropractic care helps support breastfeeding practices. Further research and analysis are needed to understand the key variables that relate to breastfeeding problems and the extent to which chiropractic care can be a positive influence. Designing practical pragmatic research to implement into routine chiropractic clinics that manage breastfeeding cases provides an opportunity to fill some of the gaps in the research literature. The primary research question is this: In a chiropractic clinic that manages breastfeeding problems, what is the perception of the mothers of that care? The specific questions investigated in this study are:

1) What is the experience of the mother in the initial visit to the clinic?

2) What is the mother's satisfaction rate?

3) What are the musculoskeletal issues for the infant presented to the clinic?

4) Are the cases presented relevant to the clinic's remit?

This study aims to answer those questions in order to better understand the mother's perception of the clinical encounter and to enhance the service providers ability to better design their service and care to respond to the needs of the breastfeeding dyad, the mother and infant. The ultimate objective is to support mothers with their breastfeeding goals and attain better breastfeeding rates which meet public health guidelines. This study will ultimately result in more patient-centered care and improve the evidence base for practice.

Research design/methods

This study is a service evaluation. A service evaluation is important in healthcare because it supports an evidencebased approach to practice delivery.¹⁰ It is used to assist in judging how well something is working. It can inform decisions about the effectiveness of a service and what changes could be considered to improve service delivery.¹⁰

As a service evaluation, the survey plans to evaluate how well the service is achieving its intended aims.¹⁰ It is undertaken to benefit the mother/infant dyad using the clinic and the survey is designed and conducted with the sole purpose of allowing the mother to judge the current initial service. A face-to-face survey questionnaire was considered to be the most appropriate form of research to be undertaken for this type of study.¹¹ The data collected are designed to represent a 'snapshot of how things present in a specific time' and not to manipulate variables. This will be a descriptive study which is considered well suited to survey data collection as it explores aspects of a situation or provides an explanation to a clinical approach.¹¹

To answer the research questions, intake and exit surveys have been designed to 1) ask the mother her reasons for attending the clinic and 2) ask the mother whether the service met her expectations and give her satisfaction rating and perceptions of the service. Another form, to be used by the clinician, will detect the musculoskeletal health of the child and the indications for the care required; this will determine the demographic and musculoskeletal health profile of the child, key factors in whether the case presented is relevant to the remit of the clinical expertise.

The three instruments used in this research project can be seen in Box 1, Box 2 and Box 3 (following page). To develop these instruments, the researcher reviewed the chiropractic and osteopathic literature for the treatment of breastfed babies. This resulted in no reliable or valid instruments that could be used for this research project. The design of these three instruments was based on the research along with the clinical experience of the researcher. After designing the instruments, other clinicians with significant experience in the field of chiropractic care for breastfeeding babies were consulted and no changes were recommended. Their review can be considered face validity. Face validity answers whether the content of the instrument appears to be suitable to its aims.¹² No further validity will be addressed as the questionnaires were deemed suitable for the population under study.

Justification for type of research

The use of questionnaires in clinical practice has increased significantly in recent years.¹³ They are considered an important aspect of patient-centered care, to access what the end user of health care is actually thinking. There was

no attempt to provide a survey that might be suitable for a broad range of clinical encounters, but only a presentation for the problem of suboptimal breastfeeding.

Sample selection and recruitment

The selection is by convenience sampling method. This means that all mothers and babies who make an appointment and attend the feeding clinic are open to recruitment. Mothers who attend clinics for the problem of breastfeeding can be considered a sensitive population of mothers with newborns and it is unknown how happy they may be to discuss their problems. Procedure questions that will be answered with this research is whether mothers are willing to participate in surveys, ease of recruitment and whether the surveys administered will be completed in their entirety. However, other research has shown that mothers are happy to provide information needed to help their newborn.¹⁴

Data collection

Each mother routinely attending the breastfeeding clinic signs a consent form for involvement into research upon entry to the clinic. If the mother agrees, then she will be met by reception staff who will then gain verbal consent from her to answer a few questions (i.e., the initial intake survey, Box 1). After answering the survey, the mother will be escorted to the feeding clinic for the clinical encounter. She will be asked whether she is willing to answer a short survey when the encounter has ended. If she replies yes, she will then be met by the same staff member who will escort her out of the clinic and administer the exit survey (Box 2). After the mother has left the clinic, the staff/clinician will collect the clinic form that contains the demographic and musculoskeletal profile of the child (Box 3) and collate all three forms and store them in a secure locked space for the researcher to process. All forms will contain only a number and no names for privacy and confidentiality.

Data analysis

The researcher will collect and collate the data and enter it into an Excel spreadsheet. This will allow the researcher to use descriptive data to describe the population that has presented and also will allow derivation of means, modes and medians (which can be useful with such a small population). There is one open-ended question asking the mother how she feels at the end of the session. These answers will be collected and developed into themes according to qualitative research methods.¹⁵

Data analysis will allow the researcher to learn whether the data has value and where it sits in the spectrum of this type of data that has been collected in other studies.¹⁶ The descriptive data will be represented in tables and graphs in order to depict it clearly.

Strengths and Limitations of the study

The main strength of this study is that it uses and values the perceptions of the health care user, the mother. A major limitation of the study may be that the mothers may answer in a way that they think that they should, instead of what they really feel. This is called social desirability bias and it may result in higher satisfaction scores since the surveys will be completed in the clinic. Another possible limitation is that the voluntary participation may bias the result in a positive way. Evidence suggests that non-responders tend to be less satisfied than responders. These concerns will be considered in the discussion.

Ethical considerations

There will be complete confidentiality in data collection. Mothers will sign a form to be included in research upon entering the clinic. She will give her verbal consent, as well, to be asked questions. In a clinical encounter, questions are a routine part of the clinical encounter and further ethical considerations are not usually required.¹⁷ All data will be held on a password protected computer. All hard copies will be destroyed once the study has been completed and published. There are no names included in any of the data collected. Complete anonymity of all data will be honored at all times.

Thank you for attending o	our Breastfeeding clinic. I	Please help us by answering	the following questions:	
 Why have you come to Breastfeeding problem Someone told me to at Other 	s General he	alth of the baby		
2) Who have you previous	sly consulted about this p	problem? (Tick as many as a	oply)	
Health Visitor	□ Midwife(s) (1, 2, 3)	Hospital	□ Lactation Consultant	GP GP
		-	Osteopath	□ Other
3) Has this problem affectFeed your babyRest		e in any of the following way Attend to your famil Other		
4) On a scale of 1 (no prob	elem) to 10 (serious proble	em), how serious is the issue	that brings you here today? C	Circle the correct level.
No Problem			Serious Problem	
1 2	3 4 5	6 7 8	9 10	
		No		
□ Research manager or a	Issistance tick here if cons	sent nas been given		
Box 1: Instrument 1. Survey	to enter clinic.			

Thank	you for	attendin	g our Bre	eastfeedir	ıg clinic.	Please he	lp us by a	answering	g the follo	owing questions:	
	a scale o rect lev	•	ly dis-sat	tisfied) to	10 (Very	satisfied)), what is	s your lev	el of satis	sfaction with your c	linic visit today? Circle
Very d	is-satis	fied							Ve	ery satisfied	
	1	2	3	4	5	6	7	8	9	10	
2) Do y	vou feel	that you	can cont	inue to bı	eastfeed	your bab	y? 🗖 Yes		No		
3) In a	word o	r two, wh	at do yo	u feel nov	v?						
Date _			7	Time			No				

Box 2: Instrument 2. Survey at the close of the first visit.

Date	FILE NO		
Mat	ernal perceptions of an Inte	rprofessional breast feeding	ng clinic: A service evaluation
	Mother	and infant demographic p	profile
Infant Age:	Gender: 🛛 Fer	nale 🛛 Male 🛛 Gestat	tional age:
Birth:			
Normal vaginal	Planned C-section	Induced	Ventouse
G Forceps	Emergency C-section	Vaginal breed	ch 🛛 Other
Feeding:			
How long did the mot	her exclusively breastfeed?		
□ Never □ 1-7 da	ys 🛛 1-2 weeks 🔲 2-3	3 weeks 3-4 weeks	□ 1 month or more □ Until now
When did parents not	ice feeding difficulties?		
Immediately	1st week	\Box 2nd week	□ 3rd week
□ 4th week	5th week	\Box 6th week	□ Later
How is the baby fed?			
	lk 🛛 Combination breastm	ilk and formula 🛛 📮 For	mula
Observed feeding prol	blems:		
□ Attachment	Clicking/noisy	Nipple/breast pain	□ Sleepy □ Nipple shields
Mastitis	Blocked ducts	Thrush	□ Unsettled □ Favours one side
□ Bottle			
Sleeping:			
Does the baby sleep su	-		
□ Always	□ Mostly	Sometimes	□ Never
MCK			
MSK: Does the baby have re	strictions?		
Cx region	Tx region	Lx region	□ Sx region □ Muscles of mastication
Doos the behr have a	nositional professor as?		
Does the baby have a p	positional preference?	Yes, right	□ Yes, extension □ Other
		-	
	positional head deformity (P		
No	□ Yes, flat left	Yes, flat right	Yes, flat bilaterallyOther
How was the baby tre	ated in feeding clinic?		
□ Midwife care & chi	ropractic treatment	Midwife care only	Chiropractic treatment only

Box 3: Instrument 3.

References

1. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krasevec J., ... & Group, TL. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *The Lancet*, 2016;387(10017), 475-490.

2. Jelly P, & Choudhary S. Breastfeeding and breast cancer: A risk reduction strategy. Int J Med Paediatr Oncol 2019; 5(2), 47-50.

3. Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [4.11.2020 URL was accessed]].

4. Baby Friendly Initiative. (2018). Call to Action update: Becoming Breastfeeding Friendly project. <u>www.unicef.org.uk/babyfriendly/call-to-action-campaign-update-becoming-breastfeeding-friendly-project/</u>

5. UNICEF Baby Friendly Initiative. (2019). About Baby Friendly. https://www.unicef.org.uk/babyfriendly/about/

6. Straus SE. Evidence-based medicine: how to practice and teach EBM 2019 [xvi, 336 pages](5th ed.).

7. Driehuis F, Hoogeboom TJ, Nijhuis-van der Sanden MWG, de Bie RA, & Staal JB. Spinal manual therapy in infants, children and adolescents: A systematic review and meta-analysis on treatment indication, technique and outcomes. *PLoS One* 2019;14(6), e0218940. <u>https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0218940</u>

8. Ahluwalia IB, Li R, Morrow B. Breastfeeding practices: does method of delivery matter? Matern Child Health J. 2012;16: 231-237.

9. Miller J, Miller L, Sulesund A-K, and Yevtushenko A. Contribution of chiropractic therapy to resolving suboptimal breastfeeding: a case series of 114 infants. *Journal of Manipulative and Physiological Therapeutics*, 2009; 32(8), 670-674.

10. Moule P. Evaluation of service delivery and its importance for nursing practice. Nursing Standard 2017.

11. Kelley K, Clark B, Brown V, & Sitzia J. Good practice in the conduct and reporting of survey research. *International Journal for Quality in health care* 2003; 15(3), 261-266.

12. Field A. Discovering statistics using IBM SPSS statistics. 4th ed. London: SAGE publications Ltd. 2013.

13. Spruyt K and Gozal D. Development of pediatric sleep questionnaires as diagnostic or epidemiological tools. A brief review of do and don'ts. *Sleep Med Review* 2011;15(1), 7.

14. Miller A, Telford A, Huizinga B, Pinkster M, ten Heggler J, Miller J. What Breastfeeding Mothers Want: Specific Contextualized Help. *Clinical Lactation* 2015; 6 (3):117-121

15. Miles MB, & Huberman AM. Qualitative data analysis : an expanded sourcebook (2nd ed.). 1984.

16. Crow R, Gage H, Hampson S, et al. The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature. <u>https://pubmed.ncbi.nlm.nih.gov/12925269/</u>. Published 2002.

17. Radesky JS, Zuckerman B, Silverstein M, Rivara FP, Barr M, Taylor JA, Lengua L and Barr RG. Inconsolable Infant Crying and Maternal Postpartum Depressive Symptoms. *Pediatrics* 2013;131e; DOI: <u>10.1542/peds.2012-3316</u>