

# Nurse Researcher

## Can solicited diaries provide a different insight into healthcare research: Researcher perspectives from a study of women's experiences of breastfeeding.

--Manuscript Draft--

<b>Manuscript Number:</b>	NR1372
<b>Article Type:</b>	Research
<b>Full Title:</b>	Can solicited diaries provide a different insight into healthcare research: Researcher perspectives from a study of women's experiences of breastfeeding.
<b>Short Title:</b>	Solicited diaries
<b>Corresponding Author:</b>	Kathryn Hinsliff-Smith, Ph.D. The University of Nottingham Nottingham, Nottinghamshire UNITED KINGDOM
<b>Other Authors:</b>	Rachael Spencer, Ph.D.
<b>Abstract:</b>	<p><b>Background</b> This paper discusses the use of diaries as a research tool to explore women's experiences of breastfeeding.</p> <p><b>Aim</b> A phenomenological methodology was used to explore women's experiences of breastfeeding in the first 6-8 weeks after giving birth. The challenges and issues that can arise when using diaries are discussed here.</p> <p><b>Data sources</b> The study was conducted in an East Midlands region of the UK. Volunteer pregnant primiparous women over 34 week's gestation were recruited to the study. In total 22 primigravid women completed a written diary for analysis. Mothers were encouraged to record something in their diary once a day about their infant feeding experience.</p> <p><b>Findings</b> Using diaries provides a unique opportunity to capture the lived experiences of participants. In addition to being an accepted data collection method, the participants found the diaries acted as a reflective mechanism. Participants found that it allowed them an opportunity to describe their feelings and emotions, particularly if their infant feeding experiences was not as they had anticipated.</p> <p><b>Conclusions</b> Diaries provide a useful insight into a social and health phenomenon that is often not captured in qualitative studies and are complementary to methods that are more commonly used, for example interviews. Diaries provide a unique opportunity for participants to share their lived experiences in a contemporaneous way and could be utilised more effectively in other qualitative or mixed methods health studies.</p>
<b>Keywords:</b>	solicited diaries; mothers experiences; breastfeeding; qualitative methods; lived experience, alternative data collection methods
<b>Additional Information:</b>	
<b>Question</b>	<b>Response</b>
Please confirm that you have read and agree to our Publisher's Agreement that is available <a href="#">here</a>	Yes
Have you submitted this manuscript elsewhere?	No
Has this manuscript already been published?	No
Has the research received ethical permission and comply with ethical guidelines?	Yes
Do you have copyright for all the images,	Yes

graphics and figures included with your submission?	
Is the research more than 5 years old?	No
What is the word count of your document including references but excluding the abstract?	2774
What is the word count of your document excluding both references and the abstract?	2193
<b>Author Comments:</b>	
<b>Manuscript Region of Origin:</b>	United Kingdom

## **INTRODUCTION**

The use of participant diaries is not a new aspect in UK healthcare settings and has grown in popularity (Jones, 2000). The diary-interview technique is a useful research approach for seeking a more profound understanding of the experience of individuals in a healthcare setting. Health diaries as they are often referred to (Richardson, 1994) are often used by patients to record their daily activities, such as exercise taken or dietary intake as an aid to monitor progress of health or illness (Milligan, 2005, Richardson, 1994). Diaries are also commonly used by healthcare professionals as a reflective tool in their everyday practice (Bedwell, 2011, Begley, 2002) or for ongoing professional staff development (Bennett and Kingham, 1993). However, using diaries as a tool to collect data for research studies by social scientists in health research is not widespread (Milligan, 2005). This paper draws on data from a qualitative study which aimed to capture the lived experience of breastfeeding in the first 6 weeks after birth.

## **BACKGROUND**

Within the UK, rates of breastfeeding initiation are amongst the lowest in Europe and for UK mothers who do initiate breastfeeding a sharp decline in continuation rates is witnessed between birth and 6 weeks (Bartington et al., 2006., Renfrew et al., 2005). Despite the Department of Health (DH, 2012) commitment to supporting breastfeeding there are a paucity of UK studies that have explored the lived experiences of first time mothers breastfeeding or that have used participant diaries to explore women's infant feeding experiences (Taylor, 2012).

## **THE STUDY**

This methodological paper reports the use of participant diaries as a method of data collection used as part of a research project where the overarching study findings are reported elsewhere (Hinsliff-Smith et al., 2013a, b). The main study was undertaken to explore the breastfeeding experiences of women during the first 6 weeks after birth.

The study used the principles of phenomenology where the data collection method aims to elicit a phenomenon, that is what the participants experience regarding the phenomenon under study (breastfeeding) (Greatrex-White, 2008, 2007). van Manen (1997) describes 12 different aspects of investigating lived experience, the majority of which have their basis in the act of writing. Use of diaries or interviews was then considered. Both of these forms of data collection would need to be unstructured, leaving the participants free to express the sense they made of the world. Considering the use of interviews as sole data collection tool, the research team reflected that the presence of the interviewer can generate socially desirable responses due to the 'halo' effect (Holloway and Fulbrook, 2001), in which the respondent wishes to be perceived in a favourable light. Use of diaries was then considered, triangulating with interviews of a sub set of participants. Triangulation helps to increase the credibility of the findings (Polit, 2006). Diaries are typically used in contexts where particular activities or events are expected to change over time, where contextual information such as the circumstances leading up to or following an event is deemed important.

## Ethical issues

Ethical approval to conduct this study was obtained from the University Ethics Committee and the National Research Ethics Service (NRES), and the acute hospital Trust Research and Development department. Confidentiality and data protection principles were strictly observed.

## **DATA COLLECTION**

### Diary design

The diary was a A5 lined hardbound notebook with the university logo, an introduction page and further details about the study.

Mothers were aware that the diaries were for the sole purpose of the study and would be read by the research team, would inform the overall study findings and be included in the final research report. The diary instructions were explicit that diary entries could be about all aspects of infant feeding, regardless of method. Whilst the research team had recruited women intending to breastfeed, we were interested in women's experiences of breastfeeding, breast milk feeding, expressing, formula feeding, and any combination in between.

The diaries were therefore solicited in comparison to an unsolicited diary that is "*personal and intended to be private*" (Milligan, 2005:1883). The diaries were purposefully unstructured in layout with no set format or daily questions to be answered by mothers. Mothers received verbal instructions about diary completion when agreeing to be participants antenatally and written

instructions with guidance about writing daily, confirming the nature of the study and their experiences of infant feeding and participants were free to write as little or more often as they felt able.

### Data Analysis

The text for analysis constituted written and typed daily diaries from the participants. The data were managed manually, without the aid of a software package. The interpretive process was guided by the principles of the philosopher Heidegger (1962) and having read Greatrex-White (2008, 2007). The aim of interpretive inquiry is to identify common themes across the participants and form a pattern of understanding. The objective is to reveal and articulate the structure of the lived experience. To meet this objective, it was crucial to search for the commonality as well as diversity of participants' experiences. This involved immersion in the data by reading and re-reading each diary in a search for emerging themes. Individual segments of texts were considered in relation to the overall text, and each sentence was assessed for meaning of the phenomena (Greatrex-White, 2008). Each researcher carried out simultaneous analysis. Collaborative reflective discussion then took place to generate deeper insights and understandings. Themes were then examined, articulated, re-interpreted, and reformulated.

The following discussion reflects on our recent experiences using diaries as data collection method. Verbrugge (1980) and Milligan (2005) both talk about 'participant fatigue' (Milligan, 2005:1890) whereby the longer the diary

timeframe, (i.e. 2-3 months) the more likely entries will stop or reduce or the entries become disjointed from the original purpose for their use (Milligan, 2005, Verbrugge, 1980). In our study, we found no evidence that mothers stopped earlier than the 6-weeks although the amount written did vary between individual participants and there was a noticeable increase in the entries when mothers experienced problems or difficulties. Unlike studies that report a decline in entries when stressful situations arise (Rogham, 1972) this was not the case for the diaries completed. The researchers found the opposite to be true whereby mothers wrote considerably more when a difficult situation arose for them, for example when circumstances meant that they changed to formula despite their desire to breastfeed.

Both Nicholl (2010) and Richardson (1994) provide useful insights in the use of diaries as a research tool. Richardson (1994) highlights the limitations of health diaries and has relevance to the use of diaries within the context of this study. She details the issues of the time constraints in constructing the diary in addition to the processing and analysis of data, dependant on study design diaries have to be taken at face value (Richardson, 1994). Whereas Nicholl (2010) provides 12 points of consideration for the use of diaries as a research tool including if the tool is appropriate, diary content and structure, content analysis and decisions on purpose (Nicholl, 2010:18).

Breastfeeding is an emotional and personal experience (Hinsliff-Smith et al., 2013a) that is often fraught with personal difficulties requiring a sensitive

approach to data collection of daily experiences (Polit, 2006). Diaries were used in order to gain a spontaneous account of mothers' day-to-day experiences without as Zimmerman and Wieder (1977) note the presence of an observer [researcher] (Zimmerman, 1977). Unlike interviews, diaries provide a distinct advantage in that there is no need for recall, mothers wrote as events happened and diary entries are less likely to be reconstructed for the interests of the present.

Within the context of this study mothers reflection is conceptualised as "*the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self and which results in changed conceptual perspective*" (Boyd, 1983:1). On reviewing the diaries some mothers were able to articulate how their desire to breastfeed was not as expected and used the diary to reflect upon this expectation:

*I will definitely have a different perspective on breastfeeding and not 'best myself up' over it" (p30).*

More surprisingly was how writing the diaries became a cathartic experience for some mothers whereby they were able to express themselves and share what at times were difficult decisions:

*Sorry if this has not helped but I was so upset this was the only way to tell someone (p24)*

*I know I am doing the right thing, it's a shame it has taken 5 weeks to get to know him (p32)*

### Researcher diary support

In this study, mothers were recruited from 34 weeks of pregnancy resulting in some mothers having a gap of nearly eight weeks before writing their first entry upon giving birth. The research team were aware of supporting participants to maintain their diary entries within the timeframes provided whilst keeping participants on the topic area of infant feeding.

To aid diary completion mothers were assured that the researchers were interested to hear about all their feeding experiences from Day 1 for a period of 6-weeks post birth and they were free to write as much or as little during this time. This included a reassurance that if mothers changed to a different feeding method (i.e. from breastfeeding to formula) then they should continue to write in their diaries.

At the recruitment stage mothers consented to provide contact details, which included home address, mobile telephone number and email address in addition to their Estimated Delivery Date (EDD). This information was important as a way to keep in regular contact with participants. Use of a spreadsheet enabled an initial text message and email two weeks after the EDD introducing the contact researcher (KHS) and this proved an effective means to receive prompt feedback from mothers.

The sole use of solicited diaries or in conjunction with other methods in order to triangulate data, such as interviews is not without difficulties (Burns, 1993). Unlike interviews, diaries require ongoing researcher support and encouragement which is time consuming and such support requires an agreement by each participant on how best to offer this support.

### Limitations of the study

There was a limitation in the demography of the participants. Women from ethnic minority groups were not excluded from the study but their absence is a reflection that all the recruitment material was provided in English and that resources did not allow for bilingual researchers or translation of materials. This should be a consideration for any future research since ethnic minority groups have a valuable 'voice' to contribute to future healthcare provision in the UK.

## **DISCUSSION**

Diaries provide a rich source of data and as Richardson (1994) notes can provide "*a daily stream of data*" (Richardson, 1994:786) and this was our experience as a research team new to using diaries as a data collection tool.

The study findings were vividly brought to life as a direct result of using participant diaries providing a richness of data enabling a depth of understanding for the emotions that mothers felt about breastfeeding. For example, a mother wrote on day eight:

*Really struggled with the feeding today, it actually made me cry with pain. I did not realise breastfeeding would be so painful. I dread him crying now as I know it means I have to go through the pain of feeding him (p10)*

Our diaries were intended as unstructured narrative accounts rather than structured list style accounts as evidenced in medical health related context. Diaries are personal and as such provide a different insight not often obtained in an interview setting. The diaries seen in this study provided the 'everyday' occurrences which may be considered trivial, easily forgotten but can provide a unique insight into a phenomenon (Verbrugge, 1980) for example how mothers coped with daily chores.

Since we were asking mothers to complete their diary daily, the research team concluded that allowing mothers to write freely with fewer constraints was more likely to encourage mothers to sustain this diary habit for a longer period, although this is a contentious issue. Most reported studies that have used diaries in healthcare provide structure to the diary either with set headings for participants to consider (Nicholl, 2010) or with narrative prompts as seen in a study of health and wellbeing amongst older people (Milligan, 2005). Although providing such a formalised structure is not considered a true diary (Allport, 1942) as the researchers may be offering a skewed opportunity for participants to write about events or experiences (Burgess, 1984). In addition, a consequence of allowing a very loose structure to the diary is that aspects of diary entries may be irrelevant to the research questions (Symon, 2004).

We would concur that using solicited unstructured diaries was a really valid and useful tool for the phenomenon under study but attention needs to be made for diary management including its structure and format and ongoing participant support throughout the study period.

## Conclusion

The use of research diaries in any format, solicited or unsolicited, should be a consideration when studies involve complex and often sensitive healthcare issues. Diaries are complementary to other sources of data collection tools but with careful management could be used as a stand-alone tool.

- ALLPORT, G. 1942. *The Use of Personal Documents in Psychology no 49*. New York: Social Science Research Council.
- BARTINGTON, S., GRIFFITHS, L., TATE, A. & DEZATEUX, C. 2006. Are breastfeeding rates higher among mothers delivering in Baby Friendly accredited maternity units in the UK? *International Journal of Epidemiology*, 35, 1178-1186.
- BEDWELL, C., MCGOWAN, LINDA, LAVENDER, TINA 2011. Using diaries to explore midwives' experiences in intrapartum care: An evaluation of the method in a phenomenological study. *Midwifery*.
- BEGLEY, C. 2002. "Great fleas have little fleas". Irish student midwives views of the hierarchy in midwifery. *Journal of Advanced Nursing*, 38, 310-317.
- BENNETT, J. & KINGHAM, M. 1993. Learning diaries in nurse education: a reflective approach. London: Edward Arnold.
- BOYD, E., FALES AW 1983. Reflective learning. *Journal of Humanistic Psychology*, 23(2), 99-117.
- BURGESS, R. 1984. *In the Field - An introduction To Field Research*, London, Allen & Unwin.
- BURNS, N., GROVE, SK 1993. *The practice of nursing research: conduct, critique and utilization*, Philadelphia, W.B. Saunders & Co.
- DH. 2012. *The NHS Outcomes Framework 2013/14* [Online]. London: Department of Health. Available: <http://www.dh.gov.uk/health/2012/11/nhs-outcomes-framework/> [Accessed 6th December 2012].

- GREATREX-WHITE, S. 2007. 'A way of seeing study abroad: narratives from nurse education.'. *Learning in Health and Social Care*, 6(3), 134-144.
- GREATREX-WHITE, S. 2008. Thinking about the nature of research findings: A hermeneutic phenomenological perspective. *International Journal of Nursing Studies*, 45(12), 1842-1849.
- HEIDEGGER, M. 1962. *Being and Time*, Oxford, Blackwell Scientific.
- HINSLIFF-SMITH, K., SPENCER, R. & WALSH, D. 2013a. Realities, difficulties, and outcomes for mothers choosing to breastfeed: Primigravid mothers experiences in the early postpartum period (6-8 weeks). *Midwifery*, 30(1), e14-e19
- HINSLIFF-SMITH, K., SPENCER, R. & WALSH, D. 2013b. How breastfeeding can be an emotional rollercoaster: A qualitative study of primigravid women in Lincolnshire. *Maternal & Child Nutrition*. 9 (Special 2), 1-41
- HOLLOWAY, I. & FULBROOK, P. 2001. 'Revisiting qualitative inquiry: Interviewing in nursing and midwifery research.'. *Nursing Times Research*, 6(1), 539-550.
- JONES, K. R. 2000. The unsolicited diary as a qualitative research tool for advanced research capacity in the field of health and illness. *Qualitative Health Research*, 10, 555-567.
- MILLIGAN, C., BINGLEY, AMANDA, GATRELL, ANTHONY 2005. Digging deep: Using diary techniques to explore the place of health and well-being amongst older people. *Social Sciences & Medicine*, 61, 1882-1892.
- NICHOLL, H. 2010. Diaries as a method of data collection in research. *Paediatric Nursing*, 22(7), 16-20.

- POLIT, D., BECK, C 2006. *Essentials of Nursing Research: Methods, Appraisal and Utilization*, Philadelphia, PA, Lippincott, Williams & Wilkins.
- RENFREW, M., DYSON, L., WALLACE, L., D'SOUZA, L., MCCORMICK, F. & SPIBY, H. 2005. The effectiveness of public health interventions to promote the duration of breastfeeding. Systematic review. London: National Institute for Clinical Excellence NICE.
- RICHARDSON, A. 1994. The health diary: an examination of its uses as a data collection method. *Journal of Advanced Nursing*, 19, 782-791.
- ROGHAM, K., HAGGERTY, R 1972. The study as a research instrument in the study of health and illness behaviours *Medical Care*, 10(2), 143-163.
- SYMON, G. 2004. Qualitative research diaries. In: CASSELL, C., SYMON, G (ed.) *Essential Guide to Qualitative Methods in Organisational Research*. London: SAGE Publications.
- TAYLOR, A., HUTCHINGS, M 2012. Using video narratives of women's lived experience of breastfeeding in midwifery education: exploring its impact on midwives' attitudes to breastfeeding. *Maternal Child Nutrition*, 8(1), 88-102.
- VAN MANEN, M. (1990) *Researching Lived Experience – Human Science for an Action Sensitive Pedagogy*. State University of New York Press, London.
- VERBRUGGE, L. 1980. Health diaries. *Medical Care*, 18, 73-95.
- ZIMMERMAN, D. A. W., D 1977. The diary-interview method. *Urban Life*, 5, 479-498.