

**The Faces of Breastfeeding Support:
A netnographic analysis of how
breastfeeding mothers find support
online**

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requirements of a
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Dedication

This thesis is dedicated to every mother who has ever needed breastfeeding support and every woman who has ever provided breastfeeding support. Also, to every woman who participated in my research study – I am honoured to have witnessed your breastfeeding journey and to have had the chance to follow along during this precious moment in time.

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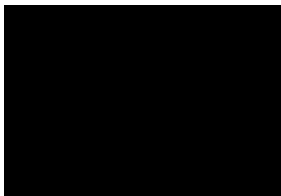
And finally, to my extended family, my husband Darrin, and my children Madison, Brynlee and Quinn who have all supported me. You are my inspiration and motivation and I would not be on this journey without you.

Close to our mothers' chests
Our world had safety
Knowing somebody cared
And everything we've
Conquered since this time
Has been assisted by our
Nurtured minds
This is a song of thanks
Because we finally understand
We grew up fuelled by liquid gold
We reap the benefits until we're gone
Couldn't have known it at the time
But our mothers set us up for life
We grew up fuelled by liquid gold
We reap the benefits until we're gone
Couldn't have known it at the time
But our mothers set us up for life
It's such a selfless thing
Providing your soul
In the form of a gift
To your child
We are so lucky
To have been given your heart
We try so hard
To repay that love
This is a song of thanks
Because we finally understand
We grew up fuelled by liquid gold
We reap the benefits until we're gone
Couldn't have known it at the time
But our mothers set us up for life

'Liquid Gold' by Jarrah Ferris-Smith

Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.



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Nicole Bridges

Outcomes of this Thesis

This thesis is presented as a series of four published papers and one paper under review. I was the sole author of two papers and the first author of the other three papers and was responsible for, and contributed towards, collecting and analysing the data that are reported in each paper. My supervisors' contribution involved collaborating on the study design, confirming the auditability of the data analysis and assisting the re-drafting or extending the content of each paper.

Publications

Bridges, N. (2016). The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review*, 24(1), 11–20.

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Awards

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Presentations

1. Western Sydney University MAINN Conference, Sydney, Australia. 6th November 2014: “Is Facebook the new forum?”
2. ILCA International Conference, Chicago, USA. 22nd July 2016: “The Faces of breastfeeding support”.
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5. Australian Multiple Birth Association State Conference, Sydney, Australia. 26th May 2018: “Facebook: How you can use it to provide support”.

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ETHICS

The research undertaken was approved by the Western Sydney University (WSU) Human Research Ethics Committee. The protocol number assigned to this research was H9010.

TABLES

Table 1 – Quantitative data for all groups

ABBREVIATIONS

ABA	Australian Breastfeeding Association
ABM	Artificial baby milk
ABS	Australian Bureau of Statistics
AOM	Acute otitis media
BFHI	Baby Friendly Hospital Initiative
CMC	Computer-mediated communication
HREC	Human Research Ethics Committee
NEC	Necrotising enterocolitis
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OSG	Online support group
SIDS	Sudden infant death syndrome
SNS	Social networking site
SPSS	Statistical Package for the Social Sciences
TPB	Theory of Planned Behavior
UNICEF	United Nations International Children's Fund
UGC	User generated content
WHO	World Health Organization
WSU	Western Sydney University

ABSTRACT

Background: Breastfeeding is an important public health issue and is associated with reduced infant mortality and improved health outcomes for children and their mothers. Research indicates that although most women are aware of the importance of breastfeeding, they are often denied the opportunity to meet their breastfeeding goals due to a lack of consistent informational and emotional support. In recent times, there have been substantial changes to the way breastfeeding mothers seek and receive support in their mothering role. Many are finding their mothering community in online spaces, such as social networking sites (SNSs) like Facebook.

Aim: The aim of this study was to explore the experiences of women seeking, receiving and giving breastfeeding support online, and the nature of that support. This study had the following objectives: 1) To identify the types of social support engaged in closed Facebook groups attached to the Australian Breastfeeding Association (ABA); 2) To advance understanding of the experiences of mothers using closed Facebook groups attached to the ABA and how these mothers find and share breastfeeding support and information; 3) To investigate the specific breastfeeding topics that women are researching via SNSs such as Facebook, and how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS.

Methods: Employing a netnographic (online ethnographic) research approach, data collection comprised of three steps:

- 1) Observation of 15 ABA closed Facebook groups for four weeks in mid-2013.
- 2) Online in-depth interviews (using Facebook “Chat” function) with administrators of three of these ABA closed Facebook groups in late 2013 and early 2014.
- 3) Online focus groups (utilising Facebook “Events” function) of groups of six to eight active participants from each of these three groups in late 2014.

Findings: This study explored the frequency of posts of the two types of support (informational and emotional) and what types of responses these posts elicit. It was found that 36 percent were informational queries and 64 percent were a combination of informational and emotional. When sharing information from the wall posts, 40

percent were informational shares and 60 percent were a combination of informational and emotional. Support providers offered comments that matched the query and featured precision, timeliness, credibility and depth. The results indicate that the types of support-giving comments were significantly associated with the types of support-seeking posts (queries). The findings also indicated that the support from support providers matched the requests from support seekers, providing congruency and also relationality.

A thematic analysis of the in-depth interview and focus group data identified the overarching theme was 'support', with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: 'community', 'complementary', 'immediate' and 'information'. It was found that the SNSs provided support from the trusted community. It is immediate, it complements existing support or services that the ABA provide, and also provides practical and valuable information for its users.

This study also explored the specific breastfeeding topics that women are investigating via SNSs such as Facebook. Of the 72 queries that were specific breastfeeding questions, 55 (76 percent) were categorised into the three topic areas of 'breastfeeding management', 'breastfeeding and health', and 'breastfeeding and work' which are all themes universally recognised as some of the most common reasons for the cessation of breastfeeding, and important areas for future study.

The research also found that these types of SNSs facilitated by trained peer breastfeeding counsellors are more likely to facilitate an authentic presence and facilitative style, both recognised as the most effective components of breastfeeding support.

Conclusion: These study findings have significant implications for peer support organisations and health professionals charged with the care of breastfeeding mothers and their families, and policy makers and international agencies with an interest in maternal and child health and nutrition. It is evident that social media has become a significant method of communication and social connection for the current generation of mothers. By designing social media tools and integrating the use of SNSs into the support mechanisms available to breastfeeding mothers, these organisations can

provide cost-effective and socially relevant methods of connecting with and supporting breastfeeding mothers – now and into the future.

Also, by providing a two-way symmetric dialogue through social media, that does not primarily focus on promoting the ABA and breastfeeding but rather providing support to its stakeholders, the ABA is able to provide an additional form of support that serves several important purposes. This study provides a lesson in opportunities that can be applied to any organisation aimed at providing not only peer support to mothers but peer support in general. Indeed, closed Facebook groups like those engaged by the ABA have led to public relations practice that has become more global, strategic, two-way and interactive, symmetrical or dialogical, and socially responsible.

CHAPTER ONE

1 Introduction

This thesis is an examination of the experiences of women seeking, receiving and giving breastfeeding support online, and the nature of that support. This chapter will introduce the thesis in the context of the importance of breastfeeding and present the aims and objectives for this study. Further, an exploration of the researcher's dual roles as a breastfeeding mother and breastfeeding peer supporter and the importance of this study will be outlined.

1.1 The importance of breastfeeding

1.1.1 Infant feeding and child health outcomes

Compared with breastfed infants, infants fed artificial baby milk (ABM) face higher risks of infectious morbidity in the first year of life. When studying the effects of breastfeeding on infant mortality, Sankar et al. (2015) discovered that when compared with exclusively breastfed infants aged 0–5 months, the risk of mortality was 14-fold higher in infants who did not receive any breastmilk. These results are supported by studies of children aged 6–23 months, for whom any breastfeeding was associated with a 50 percent reduction in deaths (Victora, Bahl, Barros, Franca, Horton, et al., 2016). This study concluded that increasing breastfeeding to a near universal level could prevent 823,000 deaths per annum in children younger than five years and 20,000 deaths per annum caused by breast cancer (Victora, Bahl, Barros, Franca, Horton, et al., 2016).

Breastfeeding has also been associated with a reduced risk of acute otitis media (AOM) (middle ear infection) during the first two years of life, with exclusive breastfeeding for the first six months providing the greatest protection (Bowatte et al., 2015). Research also indicates breastfed infants are less represented in the statistics for upper respiratory tract infections (Australian Breastfeeding Association, 2018a, 2018d; Brodribb, 2004; Day, 2006; Hanson, 2007), while multiple studies indicate that infants fed ABM have an increased risk of contracting gastroenteritis and diarrhea (Wessel, Niedbala, & Ekvall, 2017).

For certain groups of infants (such as those born prematurely), breastfeeding is particularly important. One of the most serious health risks affecting premature babies is necrotising enterocolitis (NEC), a gastrointestinal infection which kills bowel tissue (Berman & Moss, 2011). Mortality rates from NEC in neonatal intensive care units can be as high as 40 percent, and it is a leading cause of newborn gastrointestinal emergencies, affecting 1-3 per 1000 live births (Stafford et al., 2018). Premature babies who are exclusively breastfed have a reduced chance of succumbing to NEC, as breastmilk assists with the maturation of the gut (Pacheco, Barile, Underwood, & Mills, 2015). Among preterm infants, being fed ABM is associated with a 2.4 fold risk of NEC with an absolute risk difference of 5 percent (Ip, Chung, & Raman, 2007). The case-fatality rate for NEC is 15 percent (Holman, Stoll, & Curns, 2006), therefore this difference in risk is clinically significant.

Children who are fed ABM in infancy are more likely to become obese (Harder, Bergmann, & Kallischnigg, 2005; Horta, Bahl, & Martines, 2007; Horta, Loret de Mola, & Victora, 2015; Ip et al., 2007). Horta et al. (2015) found breastfeeding decreased the odds of overweight/obesity by 13 percent. Being fed ABM in infancy is also associated with a 1.6-fold risk of type 2 diabetes, compared with being breastfed (Horta et al., 2007; Horta et al., 2015; Ip et al., 2007; Owen, Martin, & Whincup, 2006).

In terms of other health benefits, data from a systematic review found there is a relationship between breastfeeding and improved performance in intelligence tests. In addition, a randomised trial revealed improved cognition as a result of breastfeeding, which suggests the association is causal (Horta & Loret de Mola, 2015).

Breastfeeding has also been linked with a reduced incidence of sudden infant death syndrome (SIDS) (Australian Breastfeeding Association, 2018a). Case-control studies suggest that ABM use is associated with an increased risk of SIDS compared with breastfeeding (Blair, Sidebotham, Pease, & Fleming, 2014; McVea, Turner, & Peppler, 2000). Additionally, a recent systematic review and meta-analysis revealed there is also some evidence that breastfeeding is protective for the development of asthma (5-18 years) (Lodge et al., 2015).

1.1.2 Infant feeding and maternal health outcomes

Not breastfeeding or weaning prematurely is also associated with health risks for mothers. Data suggests that women who do not breastfeed face higher risk of breast cancer and ovarian cancer, as well as obesity, type 2 diabetes, metabolic syndrome, and cardiovascular disease (Chowdhury et al., 2015; Day, 2006).

1.1.3 Economic and environmental impacts of breastfeeding

Early weaning is associated with significant hospital costs for treatment of chronic illness for those babies. These costs are minimum estimates of the cost of early weaning as they exclude many common illnesses and out-of-hospital health care costs, in addition to unpaid leave from employment that caregivers may have to take to care for a sick child (J. Smith, Thompson, & Ellwood, 2002). It is also recognised that breastfeeding interventions are universally the most cost-effective nutrition interventions (Horton, 2017; Kakietek, Eberwein, Walters, & Meera, 2017; Shekar, Kakietek, Dayton Eberwein, & Walters, 2017). Breastfeeding is generally perceived as being cheaper than artificial feeding as it is a free resource (Hansen, 2016). However, an important contradiction arises as it is women who are primarily affected by the time demands of exclusive breastfeeding and this raises an important issue around whether employment and maternity protection policies adequately address the substantial financial disincentives for women to breastfeed (Heymann et al., 2017; Rippeyoung & Noona, 2012; J. P. Smith & Forrester, 2013). The economic burden of not breastfeeding is estimated to represent 0.49 percent of world gross domestic product (Rollins et al., 2016). This includes the cost of caring for both children and women with chronic disease as well as short-term illness (Bartick & Reinhold, 2010; J. P. Smith & Harvey, 2010).

Women are concerned about the environment and their health and thus prefer to consume “natural” foods (Aertsens, Mondelaers, Verbeke, Buysse, & Huylenbroeck, 2011). Breastmilk is a natural food, breastfeeding is environmentally friendly (Solomon, Weiss, Owen, & Citron, 2005) and mothers will sometimes decide to breastfeed because the act of breastfeeding has not only health benefits but because it is natural (Arora, McJunkin, Wehrer, & Kuhn, 2000). Breastfeeding has traditionally been promoted as healthy, natural and environmentally friendly (Australian Breastfeeding Association, 2018b; Solomon et al., 2005). Compared to ABM,

breastmilk does not require the use of pesticides, genetically modified organisms, or deforestation, and requires less use of plastics, natural resources, and energy (Hamilton, 2015).

1.2 Breastfeeding in Australia

1.2.1 Policy

Breastfeeding success is not the sole responsibility of mothers, rather the promotion of breastfeeding is a collective social responsibility and countries can substantially improve breastfeeding practices by increasing interventions, policies, and programs that support breastfeeding (Rollins et al., 2016). An ecological approach to health promotion policy advocates interventions that change the social environment with the expectation that these will result in individual behavioural change which is relevant to a complex bio-psycho-social behaviour like breastfeeding (Hoddinott, Britten, & Pill, 2010).

Breastfeeding recommendations aim to improve infant and maternal health outcomes. Previously, these recommendations have been targeted at lower income countries; however, recent research indicates the public health importance of breastfeeding in wealthy countries in which breastfeeding rates do not meet the recommendations (Victora, Bahl, Barros, Franca, Horton, et al., 2016). In 1990, the World Health Organization (WHO) and the United Nations International Children's Fund (UNICEF) stated that to ensure optimal child and maternal health, all infants should be fed exclusively on breastmilk from birth, for the first four to six months of life and beyond (World Health Organization & United Nations International Children's Fund, 1990). Also in 1991, the Baby Friendly Hospital Initiative (BFHI) was launched to highlight ten interventions in birthing facilities aimed at protecting, promoting, and supporting breastfeeding (World Health Organization, 2009). In 2001, the recommended period for exclusive breastfeeding changed to six months. WHO and UNICEF jointly developed the Global Strategy for Infant and Young Child Feeding in 2003 to draw attention to the impact of feeding practices on the nutrition, growth, development, and health of infants and children (World Health Organization, 2003).

Despite the introduction of these initiatives, global breastfeeding rates remain well below international targets (International Food Policy Research Institute, 2017) and commitment to breastfeeding, in terms of policy and investment, is in a state of

fatigue (Lutter, Chaparro, Grummer-Strawn, & Victora, 2011). For all countries with data, the rate of children less than six months old who were exclusively breastfed increased from 25 percent in 1993 to 40 percent in 2016. However, this falls well short of the 50 percent target. Continued breastfeeding at 12-15 months decreased from 76 percent to 71 percent globally, driven largely by the decrease in prevalence in poor populations (International Food Policy Research Institute, 2017).

The National Health and Medical Research Council of Australia (NHMRC) has endorsed the WHO/UNICEF strategy recommending infants be exclusively breastfed for the first six months and continue to be breastfed following the introduction of solid foods until at least 12 months of age (National Health & Medical Research Council, 2013). In New South Wales (NSW) the Department of Health policy directive “Breastfeeding in NSW: Promotion, Protection and Support” has placed breastfeeding firmly on the agenda as a public health priority (NSW Health, 2011). In 2009, the Australian Health Ministers endorsed the *Australian National Breastfeeding Strategy 2010–2015*, which aimed to “contribute to improving the health, nutrition and wellbeing of infants and young children, and the health and wellbeing of mothers, by protecting, promoting, supporting and monitoring breastfeeding” (Australian Government Department of Health, 2009). Now that this national breastfeeding strategy has expired, the federal Department of Health is currently developing a high-level enduring strategy to incorporate recent research on effective strategies to support breastfeeding in Australia and to target key issues that are relevant to the current environment. A key focus of the enduring strategy will be addressing barriers to women establishing and maintaining breastfeeding (Australian Government Department of Health, 2018).

1.2.2 Australian breastfeeding rates

Despite these recommendations and national and international efforts to increase breastfeeding rates, many Australian babies are still weaned sooner than the WHO/UNICEF guidelines recommend. Australian mothers want to breastfeed – and initially do so. The 2010 Australian National Infant Feeding Survey reported that breastfeeding was initiated for 96 percent of children aged 0-2 years and around 69 percent of infants were still receiving some breastmilk at four months of age. However, only 39 percent were exclusively breastfed to three months (less than four months), and around 60 percent were still receiving some breastmilk at six months,

but only 15 percent were exclusively breastfed to five months (less than six months), a total of 47 percent of infants were predominantly (fully) breastfed to three months (less than four months), dropping to 21 percent predominantly breastfed to five months (less than six months) (Australian Institute of Health and Welfare, 2011). Statistics from the NSW Mothers and Babies 2016 report demonstrate the percentage of babies fully breastfed at the time of discharge from hospital decreased from 82.1 percent to 74.9 percent between 2012 and 2016 (Centre for Epidemiology and Evidence, 2017).

1.2.3 Australian Breastfeeding Association

Due to the challenging nature of breastfeeding and parenting, the ABA was founded in 1964 by six Melbourne mothers with the aim of helping and supporting other mothers to breastfeed (Australian Breastfeeding Association, 2016). This mother-to-mother support continues today, with the ABA's 1200 trained volunteer breastfeeding counsellors and community educators providing services over the phone, online and face-to-face supporting families in their community.

These services include the 24-hour Breastfeeding Helpline, eCounselling, Live Chat, antenatal Breastfeeding Education Classes, local support groups and evidence-based information provided online and in literature and a range of publications. ABA breastfeeding counsellors and community educators are mothers who have breastfed and completed a Certificate IV in Breastfeeding Education. They work voluntarily to provide empathy, reassurance and up-to-date information to help other mothers (Australian Government Department of Health, 2017). In recent years, these support services have extended to providing peer support via SNSs such as Facebook, Instagram and Twitter.

1.3 Aims and objectives

The aim of this study was to explore the experiences of women seeking, receiving and giving breastfeeding support online, and the nature of that support.

This study had the following three objectives:

- 1) To identify the types of social support engaged in closed Facebook groups attached to the ABA;

- 2) To advance understanding of the experiences of mothers using closed Facebook groups attached to the ABA and how these mothers find and share breastfeeding support and information;
- 3) To investigate the specific breastfeeding topics that women are researching via SNSs such as Facebook, and how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS.

Employing a netnographic (online ethnographic) research approach, data collection comprised of three stages:

- 1) Observation of 15 ABA closed Facebook groups for a four-week period in mid-2013.
- 2) Online in-depth interviews (using Facebook “Chat” function) with administrators of three of these ABA closed Facebook groups in late 2013 and early 2014.
- 3) Online focus groups (utilising Facebook “Events” function) of groups of six to eight active participants from each of these three groups in late 2014.

1.4 Significance of the study

Although breastfeeding initiation rates are relatively high in Australia at 96 percent, only 15 -18 percent of Australian children are exclusively breastfed for at least six months (Amir & Donath, 2008; Australian Institute of Family Studies, 2005). A key intervention in the improvement of breastfeeding rates is the provision of breastfeeding peer support (Thomson, Crossland, & Dykes, 2011). Breastfeeding peer support was initially developed in the 1950s in the US via the La Leche League (Thomson, Balaam, & Hymers, 2015b). In Australia, breastfeeding peer support is provided by the ABA which was founded in 1964 by six Melbourne mothers as the Nursing Mothers' Association (Australian Breastfeeding Association, 2016).

Peer support has been identified as important to breastfeeding success (C. Britton, McCormick, Renfrew, Wade, & King, 2009) and peer support projects are recommended by WHO as an effective intervention (World Health Organization, 2003). A recent review reported that peer support offered to women with the motivation to breastfeed can increase breastfeeding duration rates (McFadden et al., 2017). Peer support is highly valued by women and can influence breastfeeding

confidence and self-efficacy (Dykes, 2003, 2005; Ingram, Rosser, & Jackson, 2005; Thomson et al., 2011). To date, however, although there has been a significant amount of qualitative research that explore women's experience of breastfeeding peer support, women's experience of breastfeeding peer support via social media remains relatively unexplored. By observing the interactions of mothers engaging in online breastfeeding peer support and speaking to them about their experiences, this research aims to understand the experiences of women seeking, receiving and giving breastfeeding support online, and the nature of that support. This is the first study which aims to develop a comprehensive understanding of this important issue.

Findings from this study will provide the opportunity to enhance the knowledge and awareness of not only breastfeeding peer support organisations, but also health professionals who care for breastfeeding women, and governments who shape policy regarding interventions aimed at improving breastfeeding outcomes.

1.5 About the researcher

As a breastfeeding mother of three, I have been on both sides of the breastfeeding peer support model. Although I did not encounter any significant breastfeeding 'problems' with my first baby (born in 1999), my perception as a first-time mother was that she was a high needs baby who did not sleep well. I first made contact with the Nursing Mothers' Association of Australia (now the ABA) when she was seven months of age, as they were running a discussion meeting in my suburb about introducing solids, and all of my attempts to get her to eat solid food at that stage had been unsuccessful.

My attendance at that discussion meeting sealed my fate as a breastfeeding peer supporter. For the first time in my mothering journey, I felt that my baby was 'normal' and that I was actually doing an OK job as a mother. My experience was that ABA's peer support model encouraged acceptance of mothers of all persuasions and was non-judgmental. However, I understand that this may not necessarily be everyone's experience. I became actively involved in the ABA and qualified as a breastfeeding counsellor and community educator in 2002. I have since gone on to contribute to the Association as a volunteer in numerous roles, including trainer, Group Leader, Branch Public Relations Officer, Assistant Branch President, and am now the Branch President of the ACT/NSW Branch of the Association. I recognise

that this passion has directed the focus of my doctoral studies and I examine the impact of this more fully in Chapter Three.

1.6 Thesis structure

This thesis consists of nine chapters and contains four papers that have been published (Chapters Four to Seven), and one paper that is currently under review (Chapter Eight). All papers have undergone blind peer-review.

Chapter One introduces the study and provides a brief summary of the importance of breastfeeding in terms of its history, medical efficacy and social value. This chapter also presents the aims, objectives, researcher reflexivity, and significance of the study.

Chapter Two presents a review of the literature surrounding breastfeeding, peer support and social media. The literature discussed was sourced broadly and is not an attempt at a systematic academic review, rather it makes an argument for the thesis based on information published within contemporary media.

Chapter Three presents the methodology used for this study, and details the methods used for each stage of this study and any ethical issues encountered.

Chapter Four presents the first publication titled: *Facebook as a Netnographic Research Tool*. This paper explores the unique opportunities and limitations of using Facebook as a research site and how this online approach differs from traditional ethnography. This paper argues that because of the digital nature of contemporary social life, this fully online method of data collection should be considered a mainstream ethnographic technique, due to the mediated nature of communities in the 21st century. This article was published in the *Global Media Journal-Australia* in 2016.

Chapter Five presents the second publication titled: *Breastfeeding Peer Support on Social Networking Sites* which provides the findings of the quantitative data collection for this study as it follows the activities of 15 individual ABA sanctioned closed Facebook groups. The data illustrated that that breastfeeding peer support is the key purpose of these online groups. In 2018 online communities provide breastfeeding information and support in an immediate way to meet the needs of modern mothers. The findings explore the characteristics and contents of the queries and comment responses, explaining how Facebook can be used to provide social support as well as

learning and coping strategies in this online community. This study was published in *Breastfeeding Review* in 2018.

Chapter Six presents the third publication titled: *The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online*. This paper outlines the findings of both the online depth interviews involving the administrators of three of the closed Facebook groups, and the online focus groups involving the members of three of the closed Facebook groups involved in the study. The overarching theme identified was support, with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: community, complementary, immediate and information. It was found that SNSs provide support from the trusted community: it is immediate, it complements existing support or services that the ABA provides and also provides practical and valuable information for its users. This study was published in *Breastfeeding Review* in 2016.

Chapter Seven presents the fourth publication titled: *Exploring breastfeeding support on social media* and it explores the specific breastfeeding topics that women are investigating via SNSs such as Facebook, and how breastfeeding peer supporters respond to queries about breastfeeding concerns on a SNS. Twelve breastfeeding topic areas were identified, and the top three topic areas were further analysed for both their content and the nature of support provided to the community members. The research identified that the closed Facebook groups hosted by the ABA provided both informational and emotional support that appeared to be facilitated through a perception of an authentic presence from both trained peer breastfeeding counsellors and other mothers. The group administrators played a vital role in both responding to the queries and overseeing the discussions to ensure they adhered to the ABA's Code of Ethics. This study was published in the *International Breastfeeding Journal* in 2018.

Chapter Eight presents the fifth publication titled: *Creating online communities to build positive relationships and increase engagement in not-for-profit organisations*. The final paper draws on the research from this PhD project to inform public relations practice by demonstrating how a not-for-profit organisation like the ABA can effectively engage in relationship building through two-way communication with its stakeholders via the creation of communities using SNSs such as closed Facebook groups. This study is currently under review by the *Asia Pacific Public Relations*

Journal. (N.B. The paper was submitted in May 2018 but due to long-term illness of the editor, is still undergoing review).

Chapter Nine provides a discussion, which includes an overview of the study findings and an analysis of the strengths and limitations of the study.

1.7 Conclusion

This chapter has introduced the thesis in the context of the importance of breastfeeding and presents the aims and objectives for this study. Further, it has outlined and explored the researcher's dual roles as a breastfeeding mother and breastfeeding peer supporter and discussed the importance of this study. The following chapter will review the literature surrounding the importance of breastfeeding, breastfeeding peer support, and social media.

CHAPTER TWO

2 Literature Review

2.1 Introduction

This chapter provides a rationale for the study via a comprehensive review of the literature regarding the factors that affect breastfeeding decisions and breastfeeding peer support. The literature discussed was sourced broadly and is not an attempt at a systematic academic review, rather it makes an argument for the thesis based on information published within contemporary media. A broad-based literature search was undertaken that included doing a search of online databases using a range of terms including: breastfeeding, peer support, Facebook, social networking, parenting, and social support. The search was limited to articles published in English and since the year 1980. This search generated a very large number of references that addressed the following areas: factors associated with breastfeeding duration, qualitative studies of women's experiences of breastfeeding, and experimental studies of breastfeeding interventions. The reference lists of key journal papers were also searched, and the citations of papers were checked. There were also a number of edited books and chapters and relevant policy documents that also informed the review. The following sub-sections outline the main literature themes.

2.2 Factors that Affect Breastfeeding Decisions

2.2.1 *Personal characteristics of women who breastfeed*

2.2.1.1 Demographic and socio-economic factors

Research has shown that there are a range of factors that affect a woman's decision to breastfeed. These include a number of personal characteristics as well as demographic and socio-economic factors. For example, there was generally an inverse relationship between breastfeeding rates and national wealth, though this relationship may differ at the level of population subgroups (Victora, Bahl, Barros, Franca, S, et al., 2016). In high-income countries research indicated the relationship is often the opposite, with breastfeeding rates higher among more affluent women (McAndrew et al., 2012).

Although some high-income countries such as, Norway and Finland had high rates of both initiation and continuation of breastfeeding (Cattaneo et al., 2010), rates in many high-income countries were low. Recently, initiation rates have risen in some high-

income countries (NHS England, 2014; U.S. Department of Health and Human Services, 2011), but there still existed a rapid decline in breastfeeding within the first few weeks after initiation, and exclusive breastfeeding to the recommended six months was unusual (Cattaneo et al., 2010; McAndrew et al., 2012). Breastfeeding initiation and duration were generally higher in middle and low-income countries, than in high-income countries, but the average rate of exclusive breastfeeding for children younger than six months was only 37 percent (Victora, Bahl, Barros, Franca, S, et al., 2016). However, exclusive breastfeeding rates for children younger than six months varied widely (United Nations International Children's Fund, 2012). In some low and middle-income countries, cultural traditions such as prelacteal feeds, and complementing breastfeeding with water or teas, contributed to the low rates of exclusive breastfeeding (Kimani-Murage et al., 2011).

The age of the mother has also been shown to be significant. Mothers who are older, live in higher socio-economic groups and had a higher level of education were more likely to initiate and continue breastfeeding (Donath & Amir, 2000; Hector, Webb, & Lymer, 2004; McDonald et al., 2012; Scott, Landers, Hughes, & Binns, 2001; Temple Newhook et al., 2017). A 2008 study found that although the overall duration of breastfeeding remained constant in Australia between 1995 and 2005, the gap between the most and least disadvantaged families had widened considerably over this period (Amir & Donath, 2008).

This is still the case with recent research indicating that women who were less educated, socially disadvantaged, young or teenage mothers and those who lacked social support, were less likely to initiate breastfeeding and if so, would not breastfeed for as long (Alianmoghammad, Phibbs, & Benn, 2018). In Australia, breastfeeding rates were also substantially lower in Aboriginal and Torres Strait Islander populations. In 2016, 62.8 percent of babies born in NSW to Aboriginal or Torres Strait Islander mothers were fully breastfed at the time of hospital discharge compared to 75.4 percent of babies born to non-Aboriginal or Torres Strait Islander mothers (Centre for Epidemiology and Evidence, 2017). While culture could be a contributing factor, migrant women generally adopt breastfeeding practices that are more similar to the country in which they live, than the country of their birth (McLachlan & Forster, 2006).

Decisions about infant feeding have also been shown to be informed by some of the following factors: the need to return to work or school; the presence of an unrelated male lodger in the home; the need to be fully sexually available to a male partner on whom one is financially reliant; fear about social stigma; the presence of friends or a family members with experience breastfeeding, and whether or not one encounters physical breastfeeding problems (Mathers et al., 2008; Pain et al., 2001). These factors all constrained the 'choice' to breastfeed, and have led to very low breastfeeding rates among teen mothers and mothers with low levels of income and education (Boyer, 2012).

2.2.1.2 Maternal personal traits

Maternal characteristics have also been implicated in breastfeeding outcomes (Baxter, Cooklin, & Smith, 2009). In addition to demographic and socio-economic factors, a mother's own personality also played a role in the complex number of factors that influenced infant feeding decisions. Mothers who were introverted or had high levels of anxiety were less likely to initiate and continue breastfeeding (A. Brown, 2014). Understanding the relationship between these personality characteristics of extraversion, emotional stability and conscientiousness and the impact these may have on breastfeeding could mean better targeted breastfeeding support (A. Brown, 2014).

2.2.1.3 Intention to breastfeed

Intention to breastfeed had been shown to impact on breastfeeding initiation and duration rates (Lau, Lok, & Tarrant, 2018), and mothers who intended to breastfeed prior to conception were more likely to breastfeed (Amir & Donath, 2008; Ladomenou, Kafatos, & Galanakis, 2007; Shepherd, Power, & Carter, 2000). Mothers who expected to breastfeed for a short period of time were likely to wean within three months (Australian Bureau of Statistics, 2001). However, women with no intention (prenatally) to breastfeed have also been shown to initiate breastfeeding and extend the duration with support and education (Gribble, 2008).

Consumer behaviour theories may also help to understand the motivation of women when it comes to the decision to breastfeed. Ajzen's (1988) Theory of Planned Behavior (TPB) purports that in a purchasing situation, the consumer will base their decision on three things in the following order of importance: expected benefits of the purchase, influence of peer groups (family, friends, colleagues), and the ease of

access to the product itself. A recent study that used the TPB to predict intentions to breastfeed revealed some interesting findings. The study found that attitudes toward breastfeeding and perceived behavioural control positively predicted intentions to breastfeed (Johnson-Young, 2018). However, although the TPB is useful in predicting breastfeeding initiation, this does not necessarily equate with reliable prediction of breastfeeding duration (Lau et al., 2018). Qualitative research by Sheehan et al. (2010) demonstrates that even for women with high intention to breastfeed, experiences and situations post-birth dominated the decision-making process.

2.2.1.4 Confidence to breastfeed

An important variable that influences breastfeeding outcomes is how confident a woman feels about her ability to breastfeed successfully at an early stage (Gerhardsson, Hildingsson, Mattsson, & Funkquist, 2018). Based on Bandura's (1977) concept of self-efficacy, research has demonstrated that maternal confidence plays a large part in breastfeeding duration and success. 'Self-efficacy' is defined as "an individual's confidence and trust in their ability to manage and perform a specific task" (Gerhardsson et al., 2018, p. 799). Thus, high levels of self-efficacy and confidence were more likely to exist among economically advantaged socio-economic groups (Blyth et al., 2002), influence breastfeeding success (Blyth et al., 2004; Dennis & Faux, 1999; Ertem, Votto, & Leventhal, 2001; Papinczak & Turner, 2000) and create opportunities for the woman to develop a positive nurturing relationship with her baby (J. Britton & Britton, 2008; Dykes, 2006).

Breastfeeding self-efficacy and breastfeeding intention have also been correlated with breastfeeding behaviour (Wu, Ho, Han, & Chen, 2018). Women with higher self-efficacy were more likely to have had a previous successful experience of breastfeeding, and consequently, to have better perceptions of that experience (Oliver-Roig et al., 2011). Positive breastfeeding experiences and positive breastfeeding support have been shown to increase rates of exclusive breastfeeding and an increase in breastfeeding self-efficacy (Chan, Ip, & Choi, 2016).

2.2.2 *Women's experiences*

2.2.2.1 Body ontology

Women have very complex relationships with their bodies. This becomes even more complicated when the subject of breasts arises. McConville (1994) explores the issues

associated with living with breasts. The immediate problem, she muses, is the language. 'Breast' is a good word, but many do not feel comfortable using it. The word conjures up many images: eroticism, motherhood, and the unmentionable pain associated with breast cancer. Its reach spans between the two great taboos of human existence – sex and death. Somehow motherhood has to fit in along the way.

Many women report that the act of breastfeeding can be pleasurable. However, the emergence of lactation porn and erotica in the 1990s meant that breastfeeding had become sexualised within a subculture outside of dominant cultural values. The consequence is that maternal sexuality had become a muted discourse, "sometimes bordering on the immoral and illegal" (Bartlett, 2005, p. 67). Bartlett (2005) argues that breastfeeding pleasure is physiologically 'normal' and should be productively incorporated into the meanings we make between sexuality and the act of breastfeeding.

Breastfeeding in public significantly influences duration rates, since in addition to access to physical, emotional and familial support, the decision to continue to breastfeed over time is tied in with women's ability to integrate this activity with their preferred ways of engaging with the world post-birth (Boyer, 2012). The decision to breastfeed and attitudes about breastfeeding in public were powerfully shaped by class, education, age, race and ethnicity (Li, Fein, Chen, & Gummer-Strawn, 2008; R. Tarrant & Kearney, 2008).

Women also described conflicting feelings surrounding the embodied experience of breastfeeding. In a meta-ethnographic review by Burns et al. (2010), it was revealed that women who reported enjoyment of breastfeeding described the unique relationship they had with their infant. Alternately, women who experienced difficulties and for whom breastfeeding was a negative experience lacked confidence in their body and baby. They also reported receiving inadequate support.

Ryan et al. (2010) explored how "women's narratives of their breastfeeding experiences are sites of construction and reconstruction of self as they undertake moral work in relation to feeding their baby" (p.951). They identified four categories of moral: biographical preservation, biographical repair, altruism and political action. Their research concluded that by "listening to women's narratives of their breastfeeding experiences and examining and typifying the private, internal moral

work that they undertake in their practice and telling we may open up a way of thinking that leads to new discursive spaces and subject positions” (p.958).

2.2.3 *Socio-cultural and other influences*

2.2.3.1 Socio-cultural context

Breastfeeding is a learned behaviour and, like all learned behaviours, is connected to cultural views of the behaviour (Hirschhorn et al., 2015; Masood et al., 2016). For some women, breastfeeding is inherently about being a “good” mother (Alianmoghaddam et al., 2018). Research by Schmied and Barclay (1999) discovered that breastfeeding is central in a woman’s experience of motherhood in the six months following birth. Furthermore, breastfeeding was an “identity project”, and most mothers were prepared to persevere with breastfeeding to achieve their identity as a breastfeeding mother. The concept of breastfeeding as synonymous with good mothering is more contested than was previously known (Burns et al., 2010; Carter, 1995; Mak, 2016; E. Murphy, 1999, 2004; E. A. Murphy, 2000; Payne & Nicholls, 2010). Research by Marshall et al (2007) discovered the need to not only explore the normative and ideological imperatives of breastfeeding but to investigate these in the context of women’s changing lives, the multiple and varied concepts of ‘good mothering’ and the values attached to how infants are fed.

Research has shown that most objections to breastfeeding are in relation to cultural values: difficulty, offensiveness, distastefulness, and unpleasantness, and conversely, pro-breastfeeding arguments are built on the foundations of an infant’s God-given rights, naturalism, and health benefits (Bartlett, 2002). The public is aware of the health benefits of breastfeeding, but may not be as aware of the health consequences of ABM feeding. Hannan et al. (2005) found that while most of their respondents agreed with the statement, “Breastfeeding is healthier for babies,” half to three quarters of the same people did not agree that “Feeding a baby formula instead of breastmilk increases the chances the baby will get sick.” That is, respondents agreed with a statement indicating that breastfeeding had health benefits while at the same time, disagreeing with a similar statement framed negatively, stating adverse health consequences of ABM.

2.2.3.2 Modern motherhood

Like all social roles, motherhood is an individual experience, although the expectations are defined by culture (Newman & Henderson, 2014). Many argue that mothers are increasingly isolated in postmodern society as current demographic trends have added to the isolation of new mothers. Most women no longer stay at home full-time while childrearing (Arendell, 2000). Maternal employment rates were lowest in the first year of a child's life, as women leave or take a break from employment to care for an infant. Within this first year, however, there was considerable variation of maternal employment rates as some women made their way back to the workforce (Baxter, 2008). As a result, communities are no longer filled with women and young children interacting throughout the day. This loss of geographic networks and time spent with other mothers raising children represents a loss in much of the mothering informal support, advice, and interaction women have traditionally shared (Litt, 2000). However, traditional knowledge about the social behaviours that help optimise breastfeeding outcomes also began to disappear, as did intergenerational role modelling and the extended family (Douglas & Hill, 2013).

An additional social movement has been the medicalisation and production of 'scientific mothering' (Douglas & Hill, 2013; Litt, 2000; P. Thomas, 2006). While the birth and health of mother and baby were traditionally in the hands of women, including relatives, and childbirth experts such as midwives and doulas, society has adopted Dr Truby King's 'scientific mothering', a regulatory approach to infant feeding and sleep, which emphasised measurement, routine, and expert supervision. King's methods were widely disseminated in the western world from the 1920s. In the second half of last century, the precepts of scientific mothering were reinforced by the rise of behavioural psychology (Douglas & Hill, 2013).

While social and familial support is an important aspect in determining the mental health outcomes of mothers, another important factor is parenting practices. One method of parenting that could help clarify the parenthood paradox is intensive parenting, which has emerged as the dominant parenting discourse (Arendell, 2000). Hays (1996) was the first to define this phenomenon and outlined three aspects of this parenting ideology: the belief that mothers are inherently better parents (essentialism), the belief that mothering should be child-centred, and that children should be considered sacred, delightful, and fulfilling to parents. Intensive parenting beliefs also

include the idea that parents should provide consistent intellectual stimulation for their children to ensure optimal outcomes (Wall, 2010). Given the intensity required to parent well, parenting can be quite challenging and require wide-ranging skills and expertise (Rizzo, Schiffrin, & Liss, 2012).

2.2.3.3 The media's effect on infant feeding decisions

Although it is recognised that the mass media have the potential to influence the public's perception of breastfeeding, little systematic research has been done on the the portrayal of breastfeeding in the media (J. Brown & Peuchaud, 2008).

Henderson, Kitzinger & Green (2000) used content analysis to investigate how infant feeding was represented by the British media. They measured visual and verbal references to breastfeeding or feeding with ABM in newspapers and television programs. Within the television sample, they identified 235 visual or verbal references to infant feeding. In the press sample, there were 38 references to infant feeding in 37 different newspaper editions. Their study reported that breastfeeding and feeding with ABM were portrayed very differently by the mass media. Feeding with ABM was shown more often than breastfeeding and was represented as being less problematic. ABM was associated with "ordinary" families, whereas breastfeeding was associated with middle class women or celebrities. Depiction of the health risks of ABM were also missing from the coverage (L. Henderson et al., 2000). These limited portrayals of breastfeeding in the media may help to perpetuate a lack of acceptance of breastfeeding in public. They may also result in sustaining notions that breastfeeding is difficult, likely to fail, or that it is an option only for certain types of women (that is, middle class or celebrity types). It seems that in this instance, ABM was normalised and represented as the obvious choice (L. Henderson et al., 2000).

In a similar study, Foss and Southwell (2006) examined infant feeding advertisements in 87 issues of *Parents' Magazine* in the U.S., between 1971 and 1999. Using content analysis results to predict subsequent changes in levels of breastfeeding among U.S. women, they discovered that when the frequency of ABM advertisements increased, the percentage change in breastfeeding rates reported the next year generally tended to decrease. Their results emphasise the need to acknowledge the potential role of

popular media content in understanding breastfeeding patterns and public health trends.

Controversial media representations of the female body and its functions can reflect, reproduce and sometimes challenge ideological systems or discourses (A. Jones, 2003). One such example is the May 21, 2012 *TIME Magazine* cover about attachment parenting, featuring a young, fit, attractive mother breastfeeding her 3-year-old son (who looked much older) while he stood on a stool. The headline read “Are You Mom Enough?” In their discourse analysis of an online comment board, Norwood and Turner (2013) discovered the talk surrounding the cover was overwhelmingly informed by the discourse of heterosexuality, which defines breastfeeding as a sexualised act only appropriate in a private setting and for children of a young age. The discourse surrounding breastfeeding and sexuality is important not only for women’s infant feeding choices but for policymakers charged with the task of supporting breastfeeding.

In addition to increasing public discourse regarding breastfeeding in recent years, news and social media representations of celebrities breastfeeding have become more common. Two prominent media events involving breastfeeding celebrities Angelina Jolie and Salma Hayek prompted unprecedented international media coverage and conversations about the bodies, breastfeeding, and mothering practices of these two high profile mothers. The first event in November 2008, featured Angelina Jolie wearing a white negligee opened to partially reveal one of her breasts and the small hand of one of her infant twins, on the cover of *W Magazine*. Soon after in 2009, Salma Hayek was filmed by *ABC News* breastfeeding a malnourished African baby while visiting Sierra Leone during a humanitarian mission for UNICEF. A critical analysis of the media representations surrounding these two events revealed that discourses about breastfeeding celebrities are a “semiotically potent phenomenon that destabilize boundaries of public and private, perpetuate normative beauty standards, and prescribe proper breastfeeding practices to audiences” (Duvall, 2015, p. 324).

A content analysis by Gearhart and Dinkel (2016) of network television news transcripts investigated the coverage of breastfeeding over a 15-year period across three US networks (ABC, NBC and CBS). They found that although the frequency of news reports about breastfeeding had increased, the topics had become more trivial. These reports also mainly appeared in morning news programs which has the ability

to reduce the importance of breastfeeding and deter policy advancement (Gearhart & Dinkel, 2016).

2.3 Breastfeeding support

There are a range of support options for breastfeeding, including the formal options such as health professional support, and community level interventions such as peer support. A recent Cochrane review of the literature revealed that providing women with extra organised support led to increased breastfeeding duration. The type of support provided should be predictable, scheduled, and should include ongoing contact with trained health professionals such as midwives, nurses and doctors, or with trained volunteers. The type of support required may differ depending on geographical location (McFadden et al., 2017).

The concept of social support and its role in breastfeeding promotion and initiation is well researched (Dykes, Hall Moran, Burt, & Edwards, 2003; Raj & Plichta, 1998). However, the academic literature presents a “fractured and confused concept” (Williams, Barclay, & Schmied, 2004, p. 943) of the definition of social support. As a result, Williams et al (2004) advocate a qualitative and contextual approach to the definition of social support. Put simply, by asking the group being studied what social support means to them via a qualitative paradigm of enquiry such as ethnography.

A thematic analysis of interviews focused on support needs related to breastfeeding, revealed five global themes of social support: 1) emotional support, 2) esteem support, 3) instrumental support, 4) informational support, and 5) network support (Dykes et al., 2003). This study found that no single aspect of support was acceptable in isolation – the different types of social support work in synergy. In addition, a mother’s use of social support was affected by her intention to breastfeed and she sought out like-minded individuals in order to achieve her breastfeeding goals (Dykes et al., 2003).

2.3.1 Health professional support

Accurate and consistent support from health professionals is also important in improving breastfeeding success (Edwards et al., 2015). Mothers expected to receive support and information, and value both practical and emotional guidance (Schmied, Beake, Sheehan, McCourt, & Dykes, 2011; Sheehan, 2006). Particularly in the first few days postpartum, mothers valued the physical presence of a healthcare

professional (Forster et al., 2008). Practical support, including help with attachment, was often viewed as crucial to breastfeeding success (Nyawade, Middlestadt, & Peng, 2016; Raisler, 2000). Inconsistent advice, on the other hand, was associated with poorer breastfeeding outcomes (Berridge, McFadden, Abaymoi, & Topping, 2005; Frota, Lopes, Lima, Sales, & da Silva, 2016; Guttman & Zimmerman, 2000; Hauck et al., 2016). Conflicting advice, unhelpful practices and lack of availability of health professionals were associated with short duration of breastfeeding (Baxter, 2006; Frota et al., 2016; Graffy & Taylor, 2005; McInnes & Chambers, 2008). As a consequence of these inconsistencies in support, mothers reportedly felt increased frustration, confusion and self-doubt with regard to breastfeeding (Bramhagen, Axelsson, & Hallstrom, 2006; Dykes et al., 2003; McFadden et al., 2017).

Despite this, some studies demonstrate healthcare professionals see their role as incorporating breastfeeding support, including education, problem-solving and support (Furber & Thomson, 2008a, 2008b; A. M. Henderson, Pincombe, & Stamp, 2000). Authentic support from health professionals has been described as a trusting relationship characterised by rapport and connection between the care giver and the woman (Schmied et al., 2011). Research indicates only a small percentage of hospital based midwives (9 percent) provided this type of authentic support combined with continuity of care during early breastfeeding (Burns, Schmied, Fenwick, & Sheehan, 2012).

2.3.2 Peer support

Peer support is provided by mothers who have or who are currently breastfeeding and includes individual counselling and mother-to-mother support groups. Women who provide peer support undergo specific training and may work in an informal group or one-to-one through telephone calls, emails, online discussion boards or visits in the home, clinic, or hospital. Peer support includes empathy, encouragement, education about breastfeeding, and assistance with solving problems (Shealy, Li, Benton-Davis, & Grummer-Strawn, 2005). Breastfeeding peer support is increasingly being recognised as an effective intervention to support breastfeeding (Dyson et al., 2006; Thomson et al., 2011; World Health Organization, 2003). Although qualitative research into women's experiences of breastfeeding peer support is limited, the evidence demonstrates that women valued the support they received from other mothers as they had similar experiences they can relate to through a shared language

(Dykes, 2005; Hegney, Fallon, & O'Brien, 2008; Hoddinott, Chalmers, & Pill, 2006; Meier, Olson, Benton, Eghtedary, & Song, 2007; Nankunda, Tumwine, Nankabirwa, & Tylleskar, 2010; Rossman et al., 2011; Scott & Mostyn, 2003; Thomson, Balaam, & Hymers, 2015a).

A recent Cochrane review explored whether providing extra support for breastfeeding mothers, from professionals or trained peer supporters or both, would help mothers continue to breastfeed when compared with standard maternity care (McFadden et al., 2017). All forms of extra support resulted in an increase in breastfeeding duration and an increase in the duration of exclusive breastfeeding. Support by both peer supporters and professionals positively impacted on breastfeeding outcomes. Face-to-face support was more effective than telephone support and reactive support was unlikely to be effective. This indicates that women should be offered scheduled ongoing face-to-face support. Interventions providing extra support had a greater effect when breastfeeding initiation rates were high and support should be tailored to the setting and individual needs of the mother (McFadden et al., 2017).

2.4 Breastfeeding peer support online

2.4.1 Online communities

One method of uniting mothers to share the collective wisdom of mothering is on the internet via online support groups (OSGs). These spaces allow people who may have no prior acquaintance, to connect and create a community of emotional support and information-sharing. Due to the anonymity that such OSGs often allow, participants may be even more open and free to discuss troubles or intimate details about parenting and breastfeeding that they might not otherwise share in their own circle of family and friends. Therefore, for those with internet access, who are aware of such OSGs, and have the time to use them have available support and camaraderie with others in a similar stage of life (Drentea & Moren-Cross, 2005).

The online environment allowed for the reduction of geographical and temporal restrictions (Braithwaite, Waldron, & Finn, 1999) and through the manifestation of social media, relationships and creation of online community flourished. Face-to-face relationships can also be enhanced and revisited through this online space (Bridges, 2016). Alternatively, online environments can present challenges to individual boundaries and privacy. It is argued that people have the potential to say and do

things in cyberspace that they ordinarily wouldn't do or say in person. Individuals feel more uninhibited and express themselves more freely – this is known as the online disinhibition effect (Hollenbaugh, 2013).

The difference and impact in relation to how people use online information is an important argument for its efficacy. For the most part, others only know what a person tells them. They see information about the posts that they like and comment on, but this is still part of the representation that is created. When people had the opportunity to detach their actions online from their in-person lifestyle and identity, they felt less vulnerable about self-disclosing or acting out but in a positive aspect, had the potential to feel more uninhibited to seek support and ask for advice (Lapidot-Lefler & Barak, 2015).

Since their inception in the 1990s, online communities, in various forms, such as chat rooms, listservs, bulletin boards, newsgroups, and Web forums have served as a platform to bring together users with similar health conditions and life circumstances (Zhang, He, & Sang, 2013). Support groups in online communities provided a place to exchange advice, information and support (Miyata, 2002; Preece, 2001; Sharf, 1997; Wellman & Frank, 2001). Users interact, often daily, to help and check up on one another. These areas were promoted as a place in which to find support and information (Di Maggio, Hargittai, Neumann, & Robinson, 2001).

One point of contention relates to the time spent on the internet. Some evidence shows time displacement – that users displaced face-to-face interaction, leading to a decrease in socialising and time spent outside the home. Other evidence, however, showed that there was no displacement of socialising time with internet time (Di Maggio et al., 2001). In addition, some research suggests internet socialising was associated with even more face-to-face socialising (Miyata, 2002) and indicated that usage may be related to tendencies toward sociability (Di Maggio et al., 2001). Putnam (2000), speculated that cyber-networks complement, rather than replace face-to-face interaction.

Previous research has identified that female-dominated websites were much more likely to demonstrate supportive behaviour (Miyata, 2002; Sharf, 1997). Women adopted what can be described as 'feminine' interaction that enhanced support and free exchange of advice. Women's online behaviour was, on average, more

emotionally-oriented than men's (Boneva & Kraut, 2002). For example, in her study of a breast cancer online discussion group, Sharf (1997, p. 76) reports, "Hardly any postings go without some form of acknowledgment, and most often encouragement". Making rude remarks or ostracising a member (known as 'flaming') was generally not found in women-dominated groups (Herring, Johnson, & DiBenedetto, 1996; Sharf, 1997), and when flaming does occur, it is usually shut down quickly by other members of the community. However, it has more recently been suggested that "new forms of femininities are emerging online and a clear-cut binary divide between male and female behaviour can no longer be applied" (Pedersen & Smithson, 2013).

The online environment of a mothers' group creates a female-dominated community of support. Women used their own experiences of mothering to help themselves and one another (Drentea & Moren-Cross, 2005). They provided informational and emotional support such as exchanging information, and providing encouragement, empathy and similar experiences (Mickelson, 1997; Miyata, 2002). A body of research that focuses more specifically on creation of social capital via peer-to-peer online support for mothers also exists. Using participant observation and discourse analysis, Drentea and Moren-Cross (2005) examined a mothering board on a parent website and investigated whether social capital was present, and if so, how it was developed and used. The website in question was related to issues of ante and post-natal mothers' experience with pregnancy, childbirth and childrearing. Their research found that a virtual community of mothers with young children increases social capital during a time when women are traditionally isolated as new mothers. More specifically, they found that social capital operated through emotional support, sharing information, and community protection to assist mothers. Such social capital was shown to have reduced the stress felt by these mothers and provided valuable information regarding the care of their children. The researchers also claimed that the discussion board was an empowering source of feminine space, where knowledge was reclaimed from the medical establishment. On the other hand, the study did highlight the gender inequality and the fact that women continued to do the bulk of childrearing (Drentea & Moren-Cross, 2005).

A search of the literature reveals there is very little research specifically studying peer moderated, electronic, breastfeeding support. A notable exception was the recent research carried out in Australia by Cowie (2009) who examined the ways in which

parents and volunteer peer moderators use an online discussion board for breastfeeding support. The discussion board utilised for this study was the ABA's Forum, located at <http://www.lrc.asn.au/forum/>. The study aimed to categorise the main types of sociodemographic and personal information that users of the discussion board gave about themselves; identify and quantify the main users of the discussion board; identify and quantify the posting patterns; and identify and quantify the activities of the trained lay moderators of the discussion board (Cowie, 2009).

Content analysis was used to analyse the content of all posts that occurred on the ABA Forum during a three-day period in October 2007. During this period, 1614 messages were posted on the discussion board, made by people who were registered under 206 different usernames on the web site (Cowie, 2009). This research revealed that most members of the breastfeeding Forum were women who provide a lot of personal and socio-demographic information about themselves and their families. For these women, self-disclosure seemed to be integral to the giving and receiving of online breastfeeding support. The most common use of the Forum was the provision of emotional support, in addition to expression of emotion (Cowie, Hill, & Robinson, 2011).

2.4.2 Social networking sites (SNSs) and parenting

SNSs such as Facebook are internet-based services that operate and provide support for parents in a similar way to traditional OSGs. They differ to traditional OSGs in the way they enable users to share user generated content (UGC) (Jin, Phua, & Lee, 2015), post profile information, construct a list of friends, organise social events and communicate with others using both synchronous and asynchronous messaging tools (Ellison, 2007). Through SNSs such as Facebook, users were able to 'like' different organisations, make new contacts, socialise with friends and become members of open or closed discussion groups created by other users (Morales, 2011). There is the potential for users to keep in contact with friends and family that they know in the 'real' world and create new 'virtual' relationship online, through shared interests. Being a member of an SNS community allowed users to develop relationships with people who shared similar interests with them while accepting and incorporating social networking into their daily lives (Boyd & Ellison, 2010). SNSs increase and evolve; defining what constitutes a SNS becomes increasingly challenging as it is an ever-changing spectrum of communicative media that we use effortlessly. The

extensive popularity and use of SNSs, including Facebook suggests that these online technologies were successful because of the acceptance of usage in the personal, social and professional life of many individual users (Rauniar, Rawski, Yang, & Johnson, 2014).

Since 2010, the use of SNSs has become a prominent social trend globally. As of June 2017, 79 percent of Australians use SNSs, which is ten points higher than the previous year (69 percent). Frequency of use is also increasing with 59 percent accessing these sites at least once a day or more (up from 50 percent in 2016) and 35 percent checking social media more than five times a day (26 percent in 2016) (Sensis, 2017, p. 12). In Australia, the appeal of SNSs was strongest among females and under 40s, with 69 percent of women using these sites every day or most days (60 percent in 2016) compared with 66 percent of men (Sensis, 2017, p. 13). Facebook was by far the dominant SNS in terms of usage with 97 percent of Australian female SNS users maintaining a Facebook profile (compared with YouTube (43 percent), Instagram (41 percent) and Snapchat (36 percent)) (Sensis, 2017, p. 18). As of May 2018, a total of around 60 percent of Australia's population were active Facebook users and 50 percent of the country logged onto Facebook at least once a day (Cowling, 2018). In 2016-17, approximately 86 percent of Australian households had access to the internet (up from 83 percent in 2012-13) (Australian Bureau of Statistics, 2018).

Furthermore, SNSs were different from traditional OSGs in that their users were more likely to use them to satisfy social-emotional needs rather than informational needs. At the same time, because SNSs are built based on one's existing social ties, the interpersonal relationships on a SNS tended to be more intense than on general OSGs, where users were often brought together by a common interest (Rau, Gao, & Ding, 2008).

Although the research surrounding SNSs and parenthood is limited, in their 2012 study Bartholomew et al. examined new parents' Facebook use from a social capital perspective. This study revealed that Facebook use may play a central role in the lives of many new parents and that Facebook use was modestly associated with some aspects of new parents' adjustment to parenthood (Bartholomew, Schoppe-Sullivan, Glassman, Kamp Dush, & Sullivan, 2012).

Other recent sociological research has also focused on the use of social media and its influence on parenting styles (Jenson, 2013; Song, West, Lundy, & Dahmen, 2012), but little research has investigated the impacts of social media on women's experiences during the transition to motherhood. However, research does exist which reveals that online communities provided a valuable resource for both information and support during pregnancy and motherhood (Drentea & Moren-Cross, 2005; Jenson, 2013; Lagan, Sinclair, & Kernohan, 2010; O'Connor & Madge, 2004; Pandey, Hart, & Tiwary, 2013). More recently, a study by Johnson (2015) demonstrated how women seek out alternative forms of expertise (specifically, non-medical expertise) and social support. The author argues for the importance of "intimate mothering publics" (p. 237) through which women gathered experiential information and practical support. These publics acted as a space for women to 'test' or legitimise their new identity as a mother.

While social media is becoming a popular tool used by mothers of young children, the impact of social media on this community is relatively unknown (B. Baker & Yang, 2018). However, emerging evidence suggests that blogging may improve a woman's sense of connection to the world (Gibson & Hanson, 2013; McDaniel, Coyne, & Holmes, 2012), that social networking increased a mother's social capital (Jang & Dworkin, 2014), and using social media improved a new mother's sense of confidence in her new role (Gibson & Hanson, 2013).

2.4.3 Social networking sites (SNSs) and breastfeeding support

There is a strong relationship between breastfeeding success and a mother's knowledge and confidence level, as well as the social support of others around her with breastfeeding experience (Keister, Roberts, & Werner, 2008). SNSs can be particularly effective at encouraging this activity due to the sharing of breastfeeding stories and other UGC about breastfeeding on the sites (Jin et al., 2015).

Breastfeeding is a type of health activity that can be promoted effectively through SNSs, due to the interactive and collaborative nature of these sites. By joining groups and online communities devoted to breastfeeding and sharing stories about their breastfeeding experiences on the sites, mothers were able to have common questions answered, and their fears and challenges associated with this activity discussed and dispelled (Jin et al., 2015). There has been increasing interest about the manner in

which new and expectant mothers seek information, reassurance, encouragement, and reinforcement of breastfeeding via the internet (Dornan & Oermann, 2006; Riordan, 2000; J. R. Thomas & Shaikh, 2007), although it was well documented that breastfeeding information found online is not always accurate or credible (Shaikh & Scott, 2005).

A recent study aimed at exploring Australian, Irish and Swedish women's perceptions of what assisted them to continue breastfeeding revealed informal online support via SNSs (such as Facebook) was an important factor, particularly when informal face-to-face support was not easily accessible. Benefits cited by mothers included the ability to access an online breastfeeding group, being able to see encouraging posts on breastfeeding, the feeling of safety that the online environment afforded isolated mothers, access to support at all hours of the day and night, and receiving both informational and emotional support (Hauck et al., 2016).

In the current landscape of OSGs designed specifically for breastfeeding support, the leading international fora that operate in the field include websites such as Mumsnet, La Leche League, The Milk Meg and The Breastfeeding Network. In Australia there are also closed Facebook groups like Breastfeeders in Australia, The Australian Breastfeeding Project and Pinky McKay.

Despite the increasing interest in internet-based breastfeeding promotion, education, and programs, recent research on the strategies to support breastfeeding emphasised the importance of face-to-face communication between mothers and family members or health professionals (Demirtas, 2012; McFadden et al., 2017). There is little research focusing specifically on communication centred on breastfeeding women via SNSs (Jin et al., 2015). To address this gap, this study analysed SNSs in the form of closed Facebook groups as a source of breastfeeding support and dissemination of UGC regarding breastfeeding. Furthermore, although there is adequate research exploring the potential of SNSs such as Facebook as an effective tool for general health communication (Gibbons et al., 2011; Kontos, Emmons, Puleo, & Viswanath, 2010; Levine et al., 2011; Park, Rodgers, & Stemmle, 2013; Wright et al., 2013), none of the research specifically analyses its use in relation to breastfeeding. This exploratory study attempted to address these gaps via a thematic analysis of interviews and focus groups of users of closed Facebook groups hosted by the ABA, used specifically for breastfeeding support and information.

2.5 Conclusion

This chapter has provided a rationale for the study via a review of the literature surrounding breastfeeding, peer support and social media. Breastfeeding is an important public health issue that is vital for the short-term and long-term health of both infants and mothers. Many mothers may wean their babies prematurely as a result of problems that occur and lack of support to solve them. Providing women with good care and support in the form of predictable, scheduled, ongoing visits from health professionals, plus informal peer support both face-to-face and online via social media will assist mothers to meet their breastfeeding goals. The following chapter will detail the study design, research methodologies and methods used in this study.

CHAPTER THREE

3 Methodology

3.1 Introduction

This chapter outlines the aim and objectives of the study and describes “netnography” as an online research method. It includes a description of the stages of the study, including the recruitment process, methods of data collection, and analysis used for each stage. Chapter Four includes a publication regarding the unique opportunities and limitations of the study design.

3.2 Aims and objectives

The aim of this study was to explore the experiences of women seeking, receiving and giving breastfeeding support online, and the nature of that support.

This study had the following three objectives:

- 1) To identify the types of social support engaged in closed Facebook groups attached to the ABA;
- 2) To advance understanding of the experiences of mothers using closed Facebook groups attached to the ABA and how these mothers find and share breastfeeding support and information;
- 3) To investigate the specific breastfeeding topics that women are researching via SNSs such as Facebook, and how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS.

3.3 Netnography

Ethnography is a research methodology whereby the researcher immerses themselves in a community of people in order to observe their activities, to listen, and to ask relevant questions. The origins of ethnography can be found in anthropology, the methodology used for observing and writing about specific cultural groups (Dykes & Flacking, 2016a).

There are multiple understandings of ethnographic knowledge and ways of knowing (Pink, 2009) that can be broadly categorised into two separate approaches. One argument is that ethnographic research has become increasingly fragmented, leading

to specific types of data being investigated using specific ethnographic practices (Atkinson, Delamont, Coffey, Lofland, & Lofland, 2007). The other aims to explore new ways to ethnographic knowledge and understandings, flexibly adapting and developing new methods and new technologies to new situations (Pink, 2009).

This study's fully online approach is positioned as a new and flexible research method that explores how a traditional community of breastfeeding mothers has adapted to a new technology (Facebook) to create a unique platform for information and support. This approach redefines traditional ethnographic concepts such as field site, participant observation and field notes and adapts them for the fully online space.

For many in the early 21st century, social media practices and technologies now form an integral part of everyday life. With the proliferation of SNSs such as Facebook, communities now refer not only to people in a shared physical location, but also groups of people who congregate online (Chambliss & Schutt, 2013). Consequently, ethnographers are finding that in order to understand how communities work, they must follow these communities onto the internet and other technologically-mediated communications. Similar to communities of people who interact in the same physical space (ie face-to-face), online communities can develop their own culture and become sources of identification and attachment (Kozinets, 2010). Just like physical communities, researchers can study online communities through immersion in the group for a considerable period of time.

In response to this migration to the digital space, ethnographers have developed some innovative ways to describe these online ethnographies over time. These include 'virtual ethnography' (Hine, 2000, 2005), 'connective ethnography' (Hine, 2007; Leander & McKim, 2003), 'internet ethnography' (Sade-Beck, 2004), 'online/offline ethnography' (A. Markham, 2005), 'digital ethnography' (Murthy, 2008), 'cyberethnography' (Robinson & Schultz, 2009) and, most recently 'netnography' (Kozinets, 2010). Due to the exponential growth of new digital phenomena over the past 20 years, Robinson and Shultz (2009) assert that the continual evolution of the internet requires continual reassessment of fieldwork methods.

Kozinets coined the term 'netnography', which is defined as the use of ethnographic methods to study online communities (James & Busher, 2009). Netnography finds its roots in the area of marketing and consumer research, which incorporates insights

from a range of research fields, such as anthropology, sociology, and cultural studies. Despite this, anthropologists (the original ‘ethnographers’) have been reluctant to follow communities into the online space (Beaulieu, 2004; A. C. Garcia, Standlee, Beckhoff, & Cui, 2009; Hakken, 1999; Miller & Slater, 2000). While the divide between online social life and face-to-face communication was previously thought to be significant (Bargh & McKenna, 2004) many now recognise that the two worlds have blended into one (Hine, 2005; A. N. Markham & Baym, 2009; Pink et al., 2015), and this hybrid world includes the use of technology “to communicate, to commune, to socialise, to express, and to understand” (Kozinets, 2010, p. 2).

Kozinets (2010) advocates an approach that treats the digital and physical field sites differently and argues that a separation between the online and offline is possible. He makes the distinction between researching ‘online communities’ – those that are communities, having elements that cross into the physical space – and ‘communities online’ – those communities that exist solely in the digital space, and argues that different approaches can be used to explore each.

For the ethnographer, the effects of the movement to Web 2.0 and the rapid proliferation of social media platforms, applications, practices and activities are varied. They create new sites for ethnographic fieldwork (such as Facebook), invite new approaches to ethnographic practice, and encourage ethnographers to rethink the theoretical frames that dominate digital ethnographies, therefore providing opportunities to reshape internet research methodologically (Postill & Pink, 2012).

3.4 Methods

There are three stages of data collection in this study; two stages use a qualitative approach and one stage uses a quantitative approach. Data are collected both sequentially and concurrently. Stage 1 informs the design of stage 2. Stage 2 informs the design of stage 3.

3.5 Recruitment of participants

An online invitation was distributed in early 2013 via ABA email and Facebook inviting groups to nominate for participation in the project. The final 15 groups selected met the criteria as ABA closed groups that were the most active, posting more than once per week. Online contact was made with the main administrator of each group who then consulted the group members and distributed electronic copies

of Participant Information Sheets about the project. Written consent was provided via email by each group administrator to access the Facebook group and information was posted when this would be occurring so if members did not want to post during that time, they could choose not to do so. At the time of data collection, there were 1,846 group members among the 15 groups.

3.6 Gaining access to the field site

The field sites in this study were the 15 closed Facebook groups administered by the ABA. Closed Facebook groups require member approval by an admin, and only members of that group can see who else is a member and what those members post in the group (Facebook, 2018). The ABA has local breastfeeding support groups in suburbs and towns all around Australia, and many of these groups also have a closed Facebook group attached to them. As a Facebook user herself, the researcher wanted to be able to distinguish between her personal Facebook feed and her researcher Facebook feed, so a separate Facebook account using the researcher's student email account was established. This meant that the research participants' wall posts would not be visible in the researcher's personal News Feed alongside their personal friends' posts. This made the separation of the personal Facebook interactions and the professional research interactions much easier, so that separation from the field at the time of data analysis was not difficult. As all of the groups the researcher observed were closed Facebook groups (i.e. admin approval required to join) in order to gain access to the field, the admin for each of the 15 Facebook groups accepted the researcher's request to be added to their groups.

When it came time to narrow the focus of the study, further interviews and focus groups were conducted by the researcher with three of these 15 groups. The fact that each of the groups was consulted before the researcher was added to the closed Facebook groups meant that the participants had agency over their participation in the study. They did not have to add the researcher to the group if they decided not to take part and they could remove the researcher from the group at any time throughout the data collection period, which meant they were ultimately controlling access to the data.

3.7 Stages of the study

3.7.1 Stage 1 – Online Observation

3.7.1.1 Aim

The aim of this stage of the netnography was to observe the interactions taking place in these online communities and to understand the nature and purpose of these closed Facebook groups.

One of the key methods of ethnography that differentiates it from other qualitative research methods is participant observation (Boelstorff, Nardi, Pearce, & Taylor, 2012; Chambliss & Schutt, 2013; Delamont, 2004; Hammersley & Atkinson, 2007). The aim is to understand the everyday life cultural practices of the participants by observing and living alongside them in the field site, then discussing with and questioning them about their experiences (Delamont, 2004). Participant observation requires a special type of joining in and looking at things by the researcher that changes from one research project to the next (Boelstorff et al., 2012). Observation heightens the awareness of culturally learnt behaviour that may not be described during an interview, as much of the participant's cultural knowledge is tacit (Spradley, 1980).

There are four levels of observant participation ranging from low or 'passive' participation which involves the researcher being present at the scene without interacting with those s/he is observing, through to high or 'complete' participation where the researcher is already a member of the group/situation to be studied (Spradley, 1980). It is recommended that the researcher aim for a position close to passive participation, to ensure they remain in a marginal position, being immersed enough to discover implicit in addition to explicit knowledge while avoiding a high level of familiarity (Hammersley & Atkinson, 2007). In this study, the researcher was a 'passive' participant as she was a member of the closed Facebook groups but did not interact with the online community during the observation phase.

Participant observation in the online field site involves reading text and images on a computer screen rather than watching people in person. However, the technologically mediated environment still provides direct contact with the social world the ethnographer is studying, as participants in that setting communicate through online behaviour (A. C. Garcia et al., 2009).

Once the ethnographic research is underway, the researcher progresses to focusing the lens to elicit more specific aspects of cultural meaning. Following on from this are selective observations which act to further narrow the focus again to search for differences among specific cultural categories (Spradley, 1980). These selective observations are made as a result of the researcher developing early theory and needing to test these assumptions, enabling the researcher to build emerging themes (Dykes & Flacking, 2016b).

3.7.1.2 Data Collection

The data collection for this stage of the netnography was undertaken by following the activities of these 15 individual ABA sanctioned closed Facebook groups. All wall posts and comments as images for these groups were captured over a four-week period between July 21 and August 17, 2013. Data were collected on a total of 778 wall posts with a total of 2,998 comments posted into the initial wall posts, as detailed below in Table 1.

Table 1 – Quantitative data for all groups

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	TOTAL	%
Group members	98	95	112	137	75	114	259	57	165	62	91	177	100	232	72	1846	
Wall posts	15	19	38	32	16	56	29	23	157	63	94	137	30	61	8	778	
Posts per member	0.2	0.2	0.3	0.2	0.2	0.5	0.1	0.4	0.95	1	1	0.774	0.3	0.3	0.1	0.42	
Comments per member	0.7	0.5	1.3	0.7	0.7	2.4	0.3	0.2	6.19	2.1	0.8	4.181	0.8	0.6	0.4	1.624052	
Wall post type																	
Queries (Q)	4 37%	2 11%	2 5%	2 6%	7 44%	11 20%	9 31%	2 9%	56 36%	12 19%	6 6%	36 26%	5 17%	9 15%	2 25%	165	21%
Informational queries	2 50%	1 50%	0 0%	0 0%	3 43%	1 9%	1 11%	2 100%	28 50%	0 0%	6 100%	9 25%	3 60%	2 22%	1 50%	59	36%
Informational and emotional queries	2 50%	1 50%	2 100%	2 100%	4 57%	10 91%	8 89%	0 0%	28 50%	12 100%	0 0%	27 75%	2 40%	7 78%	1 50%	106	64%
Shares (S)	11 73%	17 89%	36 95%	30 94%	9 56%	45 80%	20 69%	21 91%	101 64%	51 81%	88 94%	101 74%	25 83%	52 85%	6 75%	613	79%
Informational shares	8 73%	8 47%	2 6%	7 23%	7 78%	8 18%	6 30%	17 81%	40 40%	3 6%	71 81%	45 45%	16 64%	6 12%	4 67%	248	40%
Informational and emotional shares	3 27%	9 53%	34 94%	23 77%	2 22%	37 82%	14 70%	4 19%	61 60%	48 94%	17 19%	56 55%	9 36%	46 88%	2 33%	365	60%
Wall post length (L)																	
Short (0-25 words)	8 53%	7 37%	26 68%	13 41%	6 38%	27 48%	22 76%	14 61%	67 43%	26 41%	84 89%	58 42%	13 43%	44 72%	3 38%	418	54%
Medium (26-100)	5 33%	10 53%	5 13%	7 22%	3 19%	13 23%	5 17%	8 35%	66 42%	16 25%	10 11%	42 31%	4 13%	5 8%	3 38%	202	26%
Long (100+)	2 13%	2 11%	7 18%	12 38%	7 44%	16 29%	2 7%	1 4%	24 15%	21 33%	0 0%	37 27%	13 43%	12 20%	2 25%	158	20%
Wall post themes (T)																	
Breastfeeding	5 33%	4 21%	19 50%	7 22%	4 25%	17 30%	10 34%	12 52%	98 62%	21 33%	57 61%	44 32%	4 13%	31 51%	0 0%	333	43%
Parenting	5 33%	1 5%	9 24%	8 25%	6 38%	14 25%	5 17%	1 4%	27 17%	21 33%	15 16%	67 49%	13 43%	20 33%	2 25%	214	28%
ABA	5 33%	14 74%	10 26%	17 53%	6 38%	25 45%	14 48%	10 43%	32 20%	21 33%	22 23%	26 19%	13 43%	10 16%	6 75%	231	30%
Comments (Total of C and total of CR)	64	48	150	100	53	268	89	13	1021	130	76	740	83	135	28	2998	
Comments	43 67%	36 75%	97 65%	69 69%	30 57%	187 70%	58 65%	13 100%	823 81%	106 82%	53 70%	589 80%	51 61%	101 75%	24 86%	2280	76%
Responses to comments	21 33%	12 25%	53 35%	31 31%	23 43%	81 30%	31 35%	0 0%	198 19%	24 18%	23 30%	151 20%	32 39%	34 25%	4 14%	718	24%
Length of thread (R1, 2, 3)																	
Short (up to 5 comments)	10 67%	17 89%	27 71%	25 78%	13 81%	40 71%	23 79%	23 100%	87 55%	58 92%	91 97%	93 68%	24 80%	52 85%	7 88%	590	76%
Medium (6 to 15 comments)	4 27%	2 11%	9 24%	7 22%	2 13%	11 20%	5 17%	0 0%	53 34%	5 8%	3 3%	32 23%	5 17%	9 15%	2 25%	149	19%
Long (> 15 comments)	1 7%	0 0%	2 5%	0 0%	1 6%	5 9%	1 3%	0 0%	17 11%	0 0%	0 0%	12 9%	1 3%	0 0%	0 0%	40	5%
Timeliness of comments (CR)																	
Early (< 2 hours after wall post)	33 52%	27 56%	71 47%	42 42%	28 53%	97 36%	23 26%	8 62%	471 46%	56 43%	40 53%	437 59%	33 40%	58 43%	20 71%	1444	48%
Late (2-8 hours after wall post)	14 22%	9 19%	43 29%	28 28%	4 8%	69 26%	23 26%	2 15%	237 23%	36 28%	15 20%	158 21%	21 25%	34 25%	0 0%	693	23%
Very late (> 8 hours after wall post)	17 27%	12 25%	36 24%	30 30%	21 40%	102 38%	43 48%	3 23%	313 31%	38 29%	21 28%	145 20%	27 33%	43 32%	10 36%	861	29%
Comment type (C1, 2, 3)																	
Informational comments	4 6%	10 21%	4 3%	5 5%	9 17%	4 1%	2 2%	1 8%	375 37%	4 3%	23 30%	65 9%	8 10%	6 4%	8 29%	528	18%
Emotional comments	12 19%	6 13%	26 17%	17 17%	6 11%	50 19%	11 12%	6 46%	129 13%	12 9%	10 13%	111 15%	9 11%	13 10%	3 11%	421	14%
Informational and emotional comments	27 42%	20 42%	67 45%	47 47%	15 28%	133 50%	45 51%	6 46%	319 31%	90 69%	20 26%	413 56%	34 41%	82 61%	13 46%	1331	44%
Comment response type (CR)																	
Informational comment responses	6 9%	2 4%	0 0%	1 1%	2 4%	1 0%	2 2%	0 0%	67 7%	0 0%	10 13%	13 2%	7 8%	0 0%	0 0%	111	4%
Emotional comment responses	8 13%	5 10%	1 1%	8 8%	10 19%	14 5%	0 0%	0 0%	19 2%	1 1%	4 5%	33 4%	4 5%	5 4%	2 7%	114	4%
Informational and emotional comment responses	7 11%	5 10%	52 35%	22 22%	11 21%	66 25%	29 33%	0 0%	112 11%	23 18%	9 12%	105 14%	21 25%	29 21%	2 7%	493	16%

The data was copied and pasted into Microsoft Word in the first instance. At this stage the researcher became aware of a product called NCapture that enabled the data to be directly downloaded from the Facebook groups into Excel spreadsheets to enable easier data analysis.

3.7.1.3 Analysis

The coding scheme was developed drawing on the published study of health networking sites (Liang & Scammon, 2011). All wall posts and comments were initially coded according to whether the purpose of the poster was to ask for ('query') or share ('share') information or emotion. The queries were further coded into one of three themes: breastfeeding, parenting, ABA (these posts were about the ABA and its activities). Furthermore, those that were identified as being a query about breastfeeding were then categorised into breastfeeding topic areas. To ensure accuracy, a research assistant was employed to cross-check the coding.

The software program Statistical Package for the Social Sciences (SPSS) was employed to enable quantitative analysis of the coded data from each wall post and the subsequent responses (comments) to the initial post. Individual users may respond more than once to the same wall post or comment on other wall posts in the same or different topics. Therefore, the analysis of the data categories of the wall posts and subsequent comments included the type of post, length of post, and response, in addition to the theme of the wall post. Each post was counted and for the analysis of data categories, each user was allocated a specific respondent code.

Using SPSS, quantitative analysis of the coded data was undertaken. First, descriptive statistics were calculated for each data category. The data was then tested using Pearson's chi-squared analysis between the initial post or share (informational or informational and emotional) and the resulting comments (informational, emotional, or informational and emotional). In addition, further quantitative analysis was undertaken to identify the timeliness of the responses to initial posts and shares, the length of the comments and the response to comments posted in the thread. Finally, the analysis of this categorical data explores whether the type of initial wall post influenced how other users responded.

3.7.2 *Stage 2 – Online Depth Interviews*

3.7.2.1 Aim

The aim of this stage of the netnography was to provide further qualitative insights and inform the questions used in the online focus groups. In-depth interviews enable researchers to broaden their understanding of their observations. The only difference between an online interview and a traditional face-to-face interview is that the online

interview physically occurs through the mediation of a device such as a computer, tablet or mobile phone.

According to Kozinets (2015), there are significant differences between the two approaches. The online interview has become a popular netnographic research tool, from the very beginnings of work in this field (Baym, 1995, 1999; Correll, 1995; Kozinets, 1997a, 1997b, 1998, 2015; A. N. Markham, 1998). However, it has also been the subject of criticism by those who claim that face-to-face or phone interviews offer far greater insight (Bruckman, 2006). Online interviews have traditionally been impacted by the lack of body language and individual identifiers, but strategies and new technologies exist to deal with such limitations. Other online tools now include email, audio, audio visual connections such as Skype, Facetime, Google Hangouts, Go-To-Meeting, or Zoom (Kozinets, 2015). These are valuable tools as they can simulate the advantages of face-to-face interviewing such as providing a visual and auditory sense of the physical presence of the interviewee and their surroundings (Deakin & Wakefield, 2014; Hanna, 2012; Kivits, 2005; Weinmann, Thomas, Brilmayer, Heinrich, & Radon, 2012).

In the case of netnography, in-depth interviews also allow researchers to question the relationship between online activities and other social activities in the participant's life, so that a better understanding of the role of SNS participation can be formed (Kozinets, 2010). In-depth interviews enable the eliciting of cultural meanings (Spradley, 1980) and complement the observation process (Dykes & Flacking, 2016b). Observation and interviewing are mutually enhancing. What is seen informs what is asked, and what is read (in the case of online interviewing) informs what is looked for (Hammersley & Atkinson, 2007).

3.7.2.2 Participants

These three groups were chosen as interesting cases for study based on the volume of their posts. Based on the number of posts and comments, they were the three busiest groups and they were all based in different geographical locations around Australia. The administrators of these three groups then participated in the online in-depth interviews and then six to eight participants from each of those three groups participated in online focus groups.

3.7.2.3 Data Collection

Online in-depth interviews (utilising Facebook 'Chat' function) were carried out with administrators of three of these ABA closed Facebook groups in late 2013-early 2014.

Facebook 'Chat' is a form of social media or networking that involves an open and synchronous internet platform, also known as computer-mediated communication (CMC). Respondents type messages that are received instantly, and the "platform, small box and instant messaging influences style and content, with short, direct and abbreviated messaging the norm" (VanDoorn & Eklund, 2013, p. 2). It should be noted also that the 'Chat' window sits alongside other pages that the participant may be accessing, so users can be participating in other online activities while "chatting".

In the in-depth interviews, the three group administrators were asked a series of nine open questions (Appendix E) about their experiences administering the closed Facebook groups. Additional unique questions were also asked in response to their answers.

One of the interviews was performed in a fairly straightforward manner where the researcher asked questions by typing them into the Facebook messenger function and the participant answered each question almost immediately. However, the other two participants took longer to complete their interviews due to family commitments and these interviews took around 24–48 hours to complete. Unlike the first interview that was completed in a synchronous mode, the other two interviews would be defined as asynchronous.

3.7.2.4 Analysis

The analysis of the in-depth interviews occurred with the data from the focus groups. A further explanation of the process is detailed in the following section.

3.7.3 *Stage 3 – Online Focus Groups*

3.7.3.1 Aim

The aim of this stage of the netnographic approach was to further explore the experiences of the participants from their own perspective via online focus groups. The major difference between a focus group and in-depth interview is that the former involves a group and the latter an individual (Kumar, 2014). The purpose of a focus group interview is to "explore the perceptions, experiences and understandings of a

group of people who have some experience in common with regard to a situation or event” (Kumar, 2014, p. 124).

Online focus groups have become increasingly common due to the fact that they are both time-efficient and cost-effective (Mann & Stewart, 2000). The online focus group also affords the researcher greater flexibility as the session can be staggered in time, mixed culturally, dispersed geographically, or facilitated using any combination of these factors (Kozinets, 2010). Many research studies engaging online focus group techniques have used asynchronous methods rather than synchronous (real-time) methods (Fox, Morris, & Rumsey, 2007). In fact, the ability to conduct interviews in asynchronous fashion is one of the hallmarks of online communities (Kozinets, 2010).

Online focus groups of existing community participants can also be valuable for two significant reasons. First, it enables group interviews to learn about the norms, histories, conventions, and roles of community members as they interact online. Secondly, the focus groups can yield information about how online and offline activities are related (Kozinets, 2010).

3.7.3.2 Participants

Six to eight participants from each of the three groups participated in online focus groups.

3.7.3.3 Data Collection

The ‘Events’ function in Facebook was engaged to run the focus groups. The event was created by the researcher after the participants were recruited and the participants were then ‘invited’ in Facebook to attend the focus group ‘event’. To give participants sufficient time to complete the focus group, the event was run for a 48-hour period. The semi-structured focus groups were run in a unique asynchronous manner, which meant that participants could come and go as they pleased and answer the questions at a time that was convenient to them. As Facebook can be accessed practically anywhere with a mobile device, participants could participate at a place that was convenient. As all of the participants were mothers with young families, this was particularly helpful. A standard set of questions was prepared for the three focus groups and each question was typed onto the ‘wall’ of the Facebook event page before the event commenced. Once the event started, participants were invited to start answering the questions. Although the questions were numbered, participants were

able to answer them in any order that suited them. They were able to type their answers to the focus group questions in the 'comments' section of each wall post and the researcher was also able to make comments and ask further questions to clarify. Focus group participants were asked a series of questions about their experiences with the ABA and more specifically, the closed ABA Facebook group and how it compared with other online parenting groups.

3.7.3.4 Analysis

The responses to the online depth interviews and focus groups were analysed together using theoretical thematic analysis (essentialist/realist method) which reports experiences, meanings and the reality of participants (Aronson, 1994; Roulston, 2001). The analysis was carried out by the study's author, according to the guidelines described by Braun and Clarke (2006). Thematic analysis is a method of identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes the data set in (rich) detail (Braun & Clarke, 2006). A theoretical thematic analysis tends to be driven by the researcher's theoretical or analytic interest in the area, and is analyst driven. This form of thematic analysis tends to provide less a rich description of the data overall, and more a detailed analysis of some aspect of the data (Clarke & Braun, 2016).

The themes were then identified at the semantic level. With a semantic approach, the themes are identified within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written (Braun & Clarke, 2006). The research epistemology guides what you can say about your data, and helps you theorise meaning. With this type of essentialist/realist approach, the researcher can theorise motivations, experience, and meaning in a straightforward way, because a simple, largely one-direction relationship is assumed between meaning and experience and language (language reflects and enables us to articulate meaning and experience) (Potter & Wetherell, 1987; Widdicombe & Wooffitt, 1995).

Thematic analysis is a relatively simple form of qualitative analysis, and does not require detailed theoretical and technical knowledge. It is relatively easy to conduct a good thematic analysis on qualitative data, however, there are a number of

things that can result in a poor analysis: 1) failure to actually analyse the data at all. The extracts in thematic analysis are illustrative of the analytic points the researcher makes about the data, and should be used to illustrate/support an analysis that goes beyond their specific content, to make sense of the data, and tell the reader what it does or might mean; 2) using the data collection questions as the ‘themes’ that are reported. In this instance, no analysis has been carried out to identify themes, or make sense of the sequence of responses; 3) a weak or unconvincing analysis; 4) a mismatch between the data and the analytic claims that are made about it; 5) a mismatch between theory and analytic claims, or between the research questions and the form of thematic analysis used (Braun & Clarke, 2006).

To increase validity and counteract possible researcher bias, a research assistant was employed to cross-check the coding of the data, and an additional level of thematic analysis was undertaken using Leximancer, a software tool designed for analysing natural language text data (A. E. Smith & Humphreys, 2006). By using this program, analysis takes place using text analysis and synthesises the representation of text within a piece of writing, whether this be a formalised interview or focus group, or more colloquial representations of social media interaction. Validity of the data was increased by ‘cleaning’ the document before the analysis process was undertaken – eliminating non-descriptive words and interview questions that have the potential to change the validity of the data through the analysis process (Weber, 1990).

Leximancer enables an exploratory approach, letting the list of concepts emerge automatically from the text (A. E. Smith & Humphreys, 2006). However, although this program assists in the identification of patterns in text and those that dominate it, it does not do the analysis. This is the job of the analyst who is aided by tools such as Leximancer.

3.8 Ethical considerations

Human Research Ethics Committee (HREC) clearance, granting approval to access the participating institutions and conduct the research, was obtained from the ABA and WSU. The *Participant Information Sheet*, outlining the privacy issues, the purpose of the study and the risks and benefits of participation is available in Appendix A. A sample of the *Participant Consent Form* can be found in Appendix B. The protocol number assigned to this research was H9010 and the *Ethics Approval* and *Ethics Amendment Approval* can be found in Appendixes C and D.

3.8.1 Ethical protocols

Data collection for this study proceeded without any ethical infringements. Standards of data collection were meticulous and data de-identified from the outset. Aside from focus group participants, every participant was allocated an individual code.

Information detailing the link between an individual's name and their code was stored on an Excel spreadsheet which has been password encrypted. Observational tools, field notes and recorded observations were similarly de-identified. All recorded data and signed consent forms have been stored at WSU in a locked cabinet. Regular reporting of the progress of this study has been provided to the relevant ethics committees throughout the data collection phase of this project.

3.9 Reflexivity

As a researcher who identifies with the group being researched and a fellow member of and volunteer with the ABA, I bring an additional layer of understanding to this study. For the women who participated in this netnographic study, being observed and interviewed by a researcher who was a breastfeeding mother and a breastfeeding peer supporter who shared some of their experiences, influenced the dynamics of the research process and the way I understood my experiences and those of others. This position may have raised ethical issues in both the data collection and analysis phases of the study. For example, if participants were aware of my position as an ABA volunteer and my senior roles at branch level, they may have been more likely to agree to participate in the research as they may have felt obligated or pressured to do so because of my seniority and experience. As an 'insider' and a volunteer within the ABA, this had the potential to influence the way in which the data was collected and analysed. To help mitigate this bias, steps were put in place to challenge my thinking about the data. These included additional meetings with PhD supervisors, presenting my findings at both national and international conferences, and the employment of a research assistant to assist with the initial thematic analysis.

I felt the responsibility to constantly be reflecting on and aware of the lens that I bring with me as a breastfeeding mother and ABA volunteer peer supporter. To be transparent, I followed steps recommended by O'Reilly (2005) and Flacking and Dykes (Dykes & Flacking, 2016a), including writing reflexive notes during the research and discussing my feelings and observations with my supervisors during regular meetings.

Avis (2005) sees the role of the qualitative researcher also being that of a research instrument and that often there is an emergent plan of inquiry that develops in conjunction with this role. Reflexivity involves the researcher reflecting constantly and critically on their decisions throughout the study (Finlay & Gough, 2008) and on their position (Berger, 2015). My field notes helped me to develop my critical and reflexive thinking early on with data collection through to the analytical interpretations I undertook to frame my thinking (Hammersley & Atkinson, 2007).

As Reed and Procter (1995) recognise these lived realities of the healthcare researcher and practitioner are best identified, valued and reported. The recorded thoughts and decisions helped me to revisit research design and analytical decisions and to demonstrate a transparency or rationale (Ortlipp, 2008). Qualitative researchers cannot rely on the reproducibility of their techniques to establish credibility of evidence instead they must rely on transparency (Avis, 2005) that reports or shows an audit trail for decisions throughout the study progress, access to sites and participants, field notes, ethical considerations and analytical approaches (Pyett, 2003).

3.10 Conclusion

This chapter presents the aim and objectives of the study and describes netnography as an online research method. It includes a description of the stages of the study, including the recruitment process, methods of data collection, and analysis used for each stage. The following chapter presents the first publication related to this study titled: *Facebook as a Netnographic Research Tool*.

CHAPTER FOUR

4 Facebook as a Netnographic Research Tool

4.1 Publication relevance to thesis

Chapter four presents the publication: Bridges, N. (2016). Facebook as a Netnographic Research Tool. *Global Media Journal*, 10(1), 1–8.

The aim of this paper was to explore the unique opportunities and limitations of using Facebook as a research site and how this online approach differs from traditional ethnography. The paper begins with a review of the literature then moves through to a review of the research undertaken; introducing the context, study design and ethics. A discussion of the traditional ethnographic terms ‘field site’, ‘participant observation’, and ‘field notes’ are discussed in the context of online methods, including some of the associated issues and ethical considerations.



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Facebook as a Netnographic Research Tool

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Abstract

The approaches detailed in this paper offer a reflexive view of the use of closed Facebook groups in a fully online netnography of breastfeeding mothers in Australia in 2013/14. The aim of this paper is to explore the unique opportunities and limitations of using Facebook as a research site and how this online approach differs from traditional ethnography. The paper begins with a review of the literature then moves through to a review of the research undertaken, introducing the context, study design and ethics. A discussion of the traditional ethnographic terms 'field site', 'participant observation', and 'field notes' are discussed in the context of online methods, including some of the associated issues and ethical considerations. The author goes on to argue that due to the digital nature of contemporary social life, this fully online method of data collection should be considered a mainstream ethnographic technique, due to the mediated nature of communities in the twenty first century.

Introduction

This article discusses a PhD research project that explores the function provided by closed Facebook groups for breastfeeding mothers who seek support online. It explores the unique opportunities and limitations of using Facebook as a research site and how an online approach differs from traditional ethnography. It also presents a case for the use of this method alongside traditional ethnographic methods due to the mediated nature of communities in the 21st century.

Given the rise in popularity of social media and its integration into contemporary everyday life and scholarship, the aim of this article is to explore the possibilities of social media ethnography. While online ethnographies using Facebook are of course included in the review of literature, research in which Facebook is both the research site and the research tool is clearly under-represented. A notable exception was a 2010 empirical study which explored how first year undergraduate students in the United Kingdom used Facebook in their transition to university (Stirling, 2014). However, beyond the initial online observation of how the students used the Facebook pages, there was no other engagement with Facebook as a tool for data collection. The potential for further research applications of what is a highly sophisticated digital platform was clearly evident.

When considering the topic and participants I was studying, it became apparent that using a fully online approach to data collection would provide a unique vantage point from which to view these online communities. Given the fact that breastfeeding mothers were creating these online communities to fulfil a need for information and support at a time and place convenient and accessible to them, observing these everyday life exchanges in the online space had the potential to add to my understanding of this unique field site. Although some have been critical of this new iteration of the field site in the online space because it may have a negative effect on the researcher's ability to search for hidden and deep layers of meanings (Wittel, 2000), I felt that full immersion into Facebook and use of all of the tools available to the user would provide me with a deeper layer of understanding than observation alone. Although my observations were routed in one physical location (i.e. at my computer), I experienced different tools within Facebook with which my participants would also typically be engaging with on a regular basis.

The data discussed in this article are taken from a mixed methods study undertaken in 2013/14 looking at how closed Facebook groups administrated by the Australian Breastfeeding Association (ABA) provide support for breastfeeding mothers online. The study used netnographic methods to observe mothers' Facebook use and then explored how the level of activity affected the level of engagement and support outcomes.

Ethnographic research

There are multiple understandings of ethnographic knowledge and ways of knowing (Pink, 2009) that can be broadly categorised into two separate approaches. One argument is that ethnographic research has become increasingly fragmented, leading to specific types of data being investigated using specific ethnographic practices (Atkinson, Delamont, Coffey, Lofland, & Lofland, 2007). The other aims to explore new ways to ethnographic knowledge and understandings, flexibly adapting and developing new methods and new technologies to new situations (Pink, 2009).

This is where my fully online approach is positioned – as a new and flexible research method that explores how a traditional community of breastfeeding mothers has adapted to a new technology (Facebook) to create a unique platform for information and support. This approach redefines traditional ethnographic concepts such as field site, participant observation and field notes and adapts them for the fully online space.

Instead of a physical place, my field site was an online Facebook group – a virtual community that enabled me 24/7 access to participants. The nature of this field site meant that the participants had agency over taking part of the study, as they could remove me from the group at any time throughout the data collection period.

Rather than watching people face-to-face in their physical environment, participant observation for me involved reading text and images on my computer screen. This provided me with a more authentic experience as it enabled me to observe the participants' genuine online behaviour from the perspective of another member of the online community. I was still able to observe the process of interaction, even though I was not in the same room – just as another member of the online community would observe and participate in those interactions. Another substantial advantage was that the data collection could operate in both synchronous and asynchronous modes, just as the online community would usually function.

The synchronous and asynchronous modes of Facebook enabled greater ease in taking field notes as this process did not provide the same level of disruption that would occur in the traditional field site. My field notes could be taken both during and after interactions and took the form of not only written notes, but screenshots and other data collected by Facebook that acted to enrich my view of the field. The hybrid of digital and analogue note taking demonstrate how the digital supplemented and enriched the more traditional ethnographic practices.

Online ethnographic research

For many in the early 21st century, social media practices and technologies now form an integral part of everyday life. With the proliferation of social networking sites (SNSs) such as Facebook, communities now refer not only to people in a shared physical location, but also groups of people who congregate online (Chambliss & Schutt, 2013). Consequently, ethnographers are finding that in order to understand how communities work, they must follow these communities onto the internet and other technologically-mediated communications. Similar to communities of people who interact in the same physical space (i.e. face-to-face), online communities can develop their own culture and become sources of identification and attachment (Kozinets, 2010). Just like physical communities, researchers can study online communities through immersion in the group for a considerable period of time.

In response to this migration to the digital space, ethnographers have invented some clever ways to describe these online ethnographies over time. These include 'virtual ethnography' (Hine, 2000, 2005), 'connective ethnography' (Hine, 2007; Leander & McKim, 2003), 'internet ethnography' (Sade-Beck, 2004), 'online/offline ethnography' (A. Markham, 2005), 'digital ethnography' (Murthy, 2008), 'cyberethnography' (Robinson & Schultz, 2009), and most recently 'netnography' (Kozinets, 2010).

Due to the exponential growth of new digital phenomena over the past 20 years, Robinson and Shultz (2009) assert that the continual evolution of the internet requires continual reassessment of fieldwork methods. As there are a multitude of various approaches to online ethnographic research, the focus of this article is on Kozinets's (2010) concept of 'netnography'. This will highlight how ethnographic practice has been viewed in relation to online life and how this perspective influenced my Facebook study.

The role of 'Netnography'

Netnography finds its roots in the area of marketing and consumer research and incorporates insights from a range of research fields, such as anthropology, sociology, and cultural studies. Despite this, anthropologists (the original 'ethnographers') have been reluctant to follow communities into the online space (Beaulieu, 2004; Garcia, Standlee, Beckhoff, & Cui, 2009; Hakken, 1999; Miller & Slater, 2000). While the divide between online social life and face-to-face communication was previously thought to be significant (Bargh & McKenna, 2004), many now recognise that the two worlds have blended into one (Hine, 2005; A. N. Markham & Baym, 2009; Pink et al., 2015), and this hybrid world includes the use of technology 'to communicate, to commune, to socialise, to express, and to understand' (Kozinets, 2010, p. 2).

Kozinets (2010) advocates an approach that treats the digital and physical field sites differently and argues that a separation between the online and offline is possible. He makes the distinction between researching 'online communities' – those that are communities, having elements that cross into the physical space – and 'communities online' – those communities that exist solely in the digital space, and argues that different approaches can be used to explore each. Kozinets coined the term 'netnography', to describe the use of ethnographic methods to study online communities (James & Busher, 2009). Many of the women in the online communities I was studying only had relationships with each other online, as members of the same online group, while others had crossed over from the digital space and had formed relationships in the physical space as well as the online space. For this reason, I felt Kozinets's approach was the best fit for my study.

For the ethnographer, the effects of the movement to Web 2.0 and the rapid proliferation of social media platforms, applications, practices and activities are varied. They create new sites for ethnographic fieldwork (such as Facebook), invite new approaches to ethnographic practice, and encourage ethnographers to rethink the theoretical frames that dominate digital ethnographies, therefore providing opportunities to reshape Internet research methodologically (Postill & Pink, 2012).

Online communities and social networking sites (SNSs):

SNSs (such as Facebook) are internet-based services that provide an online community and enable users to share user generated content (USG) (Jin, Phua, & Lee, 2015), post profile information, construct a list of friends and communicate with others using both synchronous and asynchronous messaging tools (Ellison, 2007). Through SNSs such as Facebook, users are able to 'like' different organisations, make new contacts, socialise with friends and become members of open or closed discussion groups created by other users (Morales, 2011). There is the potential for users to keep in contact with friends and family that they know in the 'real' world and create new 'virtual' relationships online, through shared interests. Being a member of an SNS community allows users to develop relationships with people who share similar interests with them while accepting and incorporating social networking into their daily lives (D. M. Boyd & Ellison, 2010).

The extensive popularity and use of SNSs including Facebook suggests that these online technologies are successful because of how well they have been incorporated into the personal, social and professional lives of many individual users (Rauniar, Rawski, Yang, & Johnson, 2014). In the past several years, the use of SNSs emerged as one of the prominent social trends. As of May 2015, 68% of Australian internet users have an SNS profile. Internet use is becoming more prevalent as a majority (70%) are using their smartphones to access different sites mainly through an application or 'app'. Therefore it is not surprising that the frequency of use is increasing – 24% check in more than five times a day. Facebook continues to be the most popular SNS capturing 93% of SNS users (Sensis, 2015, p. 3).

Study design

Employing a netnographic research approach, my study investigates how breastfeeding mothers find support online using closed Facebook groups and the types of useful information and support they discover. Data collection comprised of three steps:

1. Observation of 15 ABA closed Facebook groups for a four-week period in mid 2013.

2. Online in-depth interviews (using Facebook "Chat" function) with administrators of three of these ABA closed Facebook groups in late 2013 and early 2014.
3. Online focus groups (utilising Facebook "Events" function) of groups of six to eight active participants from each of these three groups in late 2014.

A call was put out in early 2013 via ABA email and Facebook channels requesting groups who would like to participate in the project. There were 15 groups chosen as appropriate for the project as they met the criteria of being both closed groups and currently active. Contact was made with the main administrator of each group who then consulted the group members and distributed participant information sheets about the project.

The initial observation of these 15 Facebook groups took place in mid 2013. Following on from this initial observation stage were the online depth interviews and the online focus groups. A total of 23 participants recruited from three of the 15 groups were involved in this component of the study.

Data collection

Observation of 15 ABA closed Facebook groups took place for a four-week period in mid 2013. All activity for participants of all 15 groups was observed and recorded during this four-week period.

Online in-depth interviews (using Facebook 'Chat' function) with administrators of three of these ABA closed Facebook groups occurred in late 2013 and early 2014. Facebook 'Chat' is a form of social media or networking that involves an open and synchronous internet platform, also known as computer-mediated communication (CMC). Respondents type messages that are received instantly, and the 'platform, small box and instant messaging influences style and content, with short, direct and abbreviated messaging the norm' (VanDoorn & Eklund, 2013, p. 2). It should be noted also that the 'Chat' window sits alongside other pages that the participant may be accessing, so users can be participating in other online activities while "chatting".

These three groups were chosen as interesting cases for study based on the volume of their posts. The administrators of these three groups then participated in the online in-depth interviews. Six to eight participants from each of those three groups then participated in online focus groups. In the in-depth interviews, the three group administrators were asked a series of eight open questions about their experiences administering the closed Facebook groups. Additional unique questions were also asked in response to their answers. One of the interviews was performed in a fairly straightforward manner where the researcher asked questions by typing them into the Facebook messenger function and the participant answered each question almost immediately. However the other two participants took longer to complete their interviews due to family commitments and these interviews took around 24-48 hours to complete. Unlike the first interview that was completed in a synchronous mode, the other two interviews would be defined as asynchronous.

The 'Events' function in Facebook was used to run the focus groups. The event was created by the researcher after the participants were recruited and the participants were then 'invited' via Facebook to attend the focus group 'event'. To give participants sufficient time to complete the focus group, the event was run for a 48-hour period. The semi-structured focus groups were run in a unique asynchronous manner which meant that participants could come and go as they pleased and answer the questions at a time that was convenient to them.

As the 'event' took place on Facebook, participants could participate in any location that was convenient as Facebook can be accessed practically anywhere with a mobile device. This was particularly helpful as all of the participants were mothers with young families. A standard set of questions was prepared for the three focus groups and each question was typed onto the 'wall' of the Facebook event page before the event commenced.

Once the event commenced, participants were invited to start answering the questions. Although the questions were numbered, participants were able to answer them in any order. They were able to type their answers to the focus group questions in the 'comments' section of each wall post and the researcher was also able to make comments and ask further questions to clarify. Focus group participants were asked a series of questions about their experiences with the ABA and more specifically, the closed ABA Facebook group and how it compared with other online parenting groups.

Data coding

The initial observation of the 15 closed Facebook groups, over a four-week period formed the quantitative component of the study that acted to inform the remainder of the research. Data was collected and coded in a number of ways.

The analysis of the closed Facebook groups revealed the nature of support that mothers were seeking and the types of information they enjoyed sharing. The total number of posts was recorded in addition to identifying them as either support seeking (queries) or information sharing (shares) in nature. This means that participants were participating in the groups for one of two primary reasons: 1) to find information and/or emotional support or 2) to share information and/or emotional support. Wall posts were also coded by length in words.

For the purposes of analysis, posts and comments were categorised into three main themes: breastfeeding (breastfeeding-related issues), parenting (parenting issues that were not associated with breastfeeding) and the Australian Breastfeeding Association (issues related to the Association and its activities).

The wall posts that were support seeking (queries) were also identified as either informational queries (asking for information in the form of suggestions or personal experiences) or a combination of informational and emotional queries (asking for information and expressing emotions). Likewise for wall posts that were support sharing (shares).

The wall posts were also coded according to the number of comments that were posted in response to the wall posts (queries/shares) in addition to the time it took for participants to respond to the initial query or share. Similarly to the wall posts, comments were categorised into three types (informational, emotional, and informational AND emotional).

Data analysis

The responses to the open-ended questions of both the online interviews and online focus groups were analysed using theoretical thematic analysis (essentialist/realist method), which reports experiences, meanings and the reality of participants (Braun & Clarke, 2006). The analysis was carried out by the study's author (and an employed research assistant), according to the guidelines described by Braun and Clarke (2006). Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes the data set in (rich) detail (Braun & Clarke, 2006). A theoretical thematic analysis tends to be driven by the researcher's theoretical or analytic interest in the area, and is analyst-driven. This form of thematic analysis tends to provide less a rich description of the data overall, and more a detailed analysis of some aspect of the data (Braun & Clarke, 2006).

The themes were then identified at the semantic level. With a semantic approach, the themes are identified within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written (Braun & Clarke, 2006). With this type of essentialist/realist approach, the researcher can theorise motivations, experience, and meaning in a straight-forward way, because a simple, largely one-direction relationship is assumed between meaning and experience and language (language reflects and enables us to articulate meaning and experience) (Potter & Wetherell, 1987; Widdicombe & Woollfitt, 1995).

To increase validity and counteract possible researcher bias, an additional level of thematic analysis was undertaken using Leximancer, a software tool designed for analysing natural language text data. This program synthesises the representation of text within a piece of writing, whether this be a formalised interview or focus group, or more colloquial representations of social media interaction. Validity of the data was increased by 'cleaning' the document before the analysis process was undertaken eliminating non-descriptive words and interview or focus group questions that have the potential to change the validity of the data through the analysis process (Weber, 1990). Leximancer enables an exploratory approach, letting the list of concepts emerge automatically from the text (Smith & Humphreys, 2006). However, while this program assists identifies dominant patterns in a corpus of texts, the researcher must interpret the output.

Undertaking netnography: field site, participant observation and field notes

This section moves the discussion from a description of the process of data collection and analysis, and explores some terms used to describe traditional ethnographic research and how these processes translate to netnography. I analyse the concepts of field site, participant observation and field notes in the context of my netnographic study of breastfeeding mothers' Facebook use.

Field research is 'the systematic study, primarily through long-term, face-to-face interactions and observation of everyday life' (Bailey, 2007, p. 2). However it has been argued that these observations of everyday life, in 'everyday contexts' (Hammersley & Atkinson, 2007, p. 3), are 'increasingly technologically mediated' (Murthy, 2008, p. 849). This means that our understanding of the field site can be an issue.

Traditionally the field site was viewed as only involving face-to-face encounters, but over the past 20 years this definition has widened to include relationships that are mediated by technology and digital in nature. Thus the definition of a field site now includes virtual worlds, gaming environments, SNSs and smartphone apps (Stirling, 2014). However, this new definition of field site has been criticised by some who believe that a shift from classical fieldwork to a multi-sited network ethnography will change the relationship between the ethnographer and the observed in such a way that the boundaries between home and the remote 'field' become less clear. Further, it may reduce the time spent at one single site, having a negative effect on the search for hidden and deep layers of meanings (Wittel, 2000).

The ways in which social media are accepted as a field site are dependent on the methodologies and practical methods engaged (Postill & Pink, 2012). The two most common methods used are web content analysis of large data sets drawn from social media sites (Agichtein, Castillo, Donato, Gionis, & Mishne, 2008; Honeycutt & Herring, 2009; Kwak, Lee, Park, & Moon, 2010; Oulasvirta, Lehtonen, Kurvinen, & Raento, 2010) and social network analysis (Gilbert & Karahalios, 2009; Java, Song, Finin, & Tseng, 2007; Prieur, Cardon, Beuscart, Pissard, & Pons, 2009). Both approaches accept social media as a particular type of field site with texts and/or with connections between entities (Postill & Pink, 2012).

Using large data sets can provide statistical overviews that can be helpful in providing background information for the ethnographer. However, these are less suited to responding to research questions such as mine that seek to understand the experiences of mothers using closed Facebook groups and how these mothers find and share breastfeeding support and information using this type of social media. However, when conventional ethnographic research methods (such as interviews or participant observations) are adapted to the digital space (Cox, Clough, & Marlow, 2008; Humphreys, 2007; Komito, 2011; Miller, 2011), they allow us to refigure social media as a fieldwork environment that is social, experiential and mobile (Postill & Pink, 2012).

Gaining access to the field site

The field sites in this study were the 15 closed Facebook groups administered by the ABA. The Association has local breastfeeding support groups in suburbs all around Australia, and many of these groups also have a closed Facebook group attached to them. As a Facebook user myself, I wanted to be able to distinguish between my personal Facebook feed and my research Facebook feed, so I set up a separate Facebook account using my university's student email account. This meant that my research participants' wall posts would not be visible in my personal News Feed alongside my personal friends' posts. This made the separation of my personal Facebook interactions and my professional research interactions much easier, so that separation from the field at the time of data analysis was not difficult. As all of the groups I observed were closed Facebook groups (i.e. administration approval required to join). In order to gain access to the field, the administration for each of the 15 Facebook groups accepted my request to be added to their groups.

When it came time to narrow the focus of the study and further explore the three groups chosen, I personally conducted all interviews and focus groups. I am a volunteer breastfeeding counsellor with the ABA, and all research participants were made aware of this before they agreed to take part. This was a particularly important ethical feature of the research design and it enhanced the willingness of the women to participate as they were more inclined to believe that my intentions were honourable and that they would not be taken advantage of in any way.

My position as a volunteer and 'insider' within the ABA, however, had the potential to influence the way in which the data was collected and analysed. To help mitigate this bias, steps were taken to challenge my thinking about the data. These included additional meetings with PhD supervisors and the use of a research assistant to assist with the initial thematic analysis. The independent decision of the group admins (and the collective closed Facebook group who were all consulted prior to the commencement of the data collection) to add me to the closed Facebook groups meant that the participants had agency over participation in the study. They were not forced to admit me to the group should they have decided not to take part and they could remove me from the group at any time throughout the data collection period. This meant they were ultimately controlling my access to the data.

The boundary of the field site

It is typical to define the parameters of the study when embarking on ethnographic research, while still remaining flexible. The wall posts and comments of the closed Facebook groups of the 15 groups, and the in-depth interviews and online focus groups of the three groups chosen for closer analysis, were the main focus of the study to explore the way this cohort of breastfeeding mothers found support online. The movements of the mothers across these closed Facebook groups were followed as I took screenshots, copied and pasted into Word documents and downloaded information using a tool called 'NCapture'. NCapture is a web browser extension that quickly and easily captures content like web pages, online PDFs and social media for qualitative analysis from SNSs like Facebook (QSR International, 2015). The type of information that NCapture downloads includes: user names, wall posts, who was tagged, pictures, links, number of likes, comments, and the time and dates of wall posts and comments.

The in-depth interviews were carried out using a tool within Facebook called 'Messenger' or 'Chat' which became the field sites for this part of the data collection. The focus groups used the Facebook 'Events' tool. Therefore the field sites fell into three distinct Facebook tools: Wall Posts, Messenger and Events.

Participant observation

One of the key methods of ethnography that differentiates it from other qualitative research methods is participant observation (Boelstorff, Nardi, Pearce, & Taylor, 2012; Chambliss & Schutt, 2013; Delamont, 2004; Hammersley & Atkinson, 2007). The aim is to understand the everyday life cultural practices of the participants by observing and living alongside them in the field site, then discussing with and questioning them about their experiences (Delamont, 2004).

Participant observation requires a special type of involvement by the researcher that changes from one research project to the next (Boelstorff et al., 2012). In the online field site, it involves reading text and images on a computer screen rather than watching people in person. However, the technologically-mediated environment still provides direct contact with the social world the ethnographer is studying as participants in that setting communicate through online behaviour (Garcia et al., 2009).

For this particular netnography, the participant observation had three distinct phases. Phase One involved the initial four week observation of the everyday life of breastfeeding mothers on 15 closed Facebook groups which required me to sit in front of my computer daily while I copied, pasted and took screenshots of all of the activity in my researcher Facebook feed. According to Boelstorff (2012), the researcher must prepare themselves both technologically and physically before entering the field and should have the appropriate equipment to access the field site. A reliable internet connection is essential, and if a researcher does not have this or an understanding of how the website works, participant observation would be challenging. Fortunately I was well versed in the way Facebook operates before commencing my participant observation, so my full attention could be paid to the observing rather than being distracted by technical issues.

Phase Two involved in-depth interviews which are another popular method of participant observation for the ethnographer. Unlike other netnographies that used Facebook as a research tool and ethnographic site, my in-depth interviews were carried out online using another tool within Facebook called 'Messenger' or 'Chat'.

Phase Three of the participant observation involved online focus groups. Focus groups are focused discussions led by a moderator and ideally involving six to twelve participants (Broom & Dozier, 1990). Focus groups are both an interview and an observational technique. Their strength lies in the fact that they allow access to a process that qualitative researchers are extremely interested in: interaction. Similar to in-depth interviews, they also allow access to the attitudes and experiences of participants (Morgan & Spanish, 1984). Although primarily a group interviewing technique, observations of interactions between group members are an integral part of focus group data collection (Teddle & Tashakkori, 2009). The focus groups for my research project were also carried out using a Facebook tool called 'Events'.

One of the interesting aspects of using Facebook as a research site is the fact that it operates in both synchronous and asynchronous modes. When using inbuilt functions such as 'Messenger' and 'Events' to carry out interviews and focus groups, the benefit is ease of access for new mothers that suit their lifestyle. It also enables the same freedoms for the researcher and ensures accuracy in transcribing interviews as these can be copied and pasted directly from Facebook. In comparison, traditional methods can be time consuming and have a small degree of error. Fully online ethnography enables the researcher to access a whole cohort of participants who otherwise may not be available to them. However this model is not without limitations. Answers are less likely to be spontaneous and participants have more opportunity for self-censorship. In addition, there are many details that are unavailable to the researcher given that interviews are not conducted face-to-face such as body language, tone-of-voice, facial expressions, and so on.

In summary, although my participant observation was carried out using Facebook, different phases of the observation required the use of different Facebook tools. This meant that although my observations were routed in one physical location (i.e. at my computer), I experienced different tools within Facebook with which my participants would also typically be regularly engaging.

Field notes

Field notes are one of the primary methods used for recording participant observations in ethnographic research (Sanjek, 1990). These notes are commonly in a daily diary format and are often described as a thick description (Dykes & Flacking, 2016). In a netnography, these descriptions will comprise of a combination of what is seen on the screen and what is experienced by the researcher. Although much of the online interaction can be captured with data downloads and screenshots, the field notes should capture the researcher's own impressions as a member of the culture or community – the subjective meaning of interactions and events (Kozinets, 2010).

The synchronous and asynchronous nature of Facebook mean that field notes can be written when observing Facebook, as note taking would not be seen as a distraction to the participants. This is not quite as easy in the face-to-face environment where stopping and writing about the interaction can create a distraction and a disconnect from the activity being observed (Boelstorff et al., 2012). My field notes often took the form of screenshots to record additional information and acted as a supplement for traditional hand written field notes. In addition to the screenshots, the NCapture downloads could also be seen as a type of field note as it captured other supplementary information such as user names, wall posts, who was tagged, pictures, links, number of 'likes', comments, and the time and dates of wall posts and comments. The visual nature of the screenshots in particular, provided a richer view of the field than written notes alone, and can be used as a starting point for fuller written notes. They are also key pieces of data that can be used (with consent from participants) as part of a presentation of the study at conferences.

The digital nature of recording my field notes in this way, complemented the traditional note taking. Together with my involvement and experience of participant observation, they culminate to create the ethnographic texts. This hybrid of digital and analogue note taking, demonstrate how the digital supplemented the more traditional ethnographic practices.

Conclusion

The approaches detailed in this article offer a reflexive view of the use of closed Facebook groups in a netnography of breastfeeding mothers in Australia in 2013/14. The aim of this study was to explore the experiences of mothers using Facebook and how these mothers seek and share breastfeeding support and information. As the first Australian study of its type, it offers a 'wide-angle' view of a largely new area of investigation.

My research has led me to the belief that the particular cohort being studied, (in this case, breastfeeding mothers), should inform the choice of ethnographic methods employed and to study the practices of the participants should remain the primary focus, whether that be via a digital or face-to-face approach. We are living in a time of increasing use of digital devices which has led to an increase of digital environments, and it naturally follows that the ethnographer's focus should be responsive to the field, and that studying these environments move to digital methods (Stirling, 2014).

This study explored the cultural practices of mothers in the digital space, making use of Facebook in a unique manner as both the field site and for all methods of data collection. When studying mothers, the traditional field sites might be the home, mothers' groups, shopping centres, cafés and other meeting places where mothers may gather. The digital field site in this case was Facebook, which now exists alongside those physical, traditional field sites and should be considered mainstream. In fact, to view otherwise would be ignoring the significant role these digital environments play in the lives of these participants.

Some have predicted that the move to the digital field site will change the relationship between the ethnographer and the observed in such a way that the boundaries between home and the remote 'field' become less clear. However I propose this should not necessarily be viewed as a negative and that it allows us to reconfigure social media as a fieldwork environment that is social, experiential and mobile (Postill & Pink, 2012).

On one hand, Facebook provided one field site through which to study my participants. On the other hand, the field sites fell into three distinct Facebook tools: Wall Posts, Messenger and Events. In this unique way, digital environments are able to provide a type of multiplicity otherwise not possible in the physical field site.

It has been argued that participant observation in the digital field site may not provide the same level of insight as watching people in person, as there are so many factors the researcher does not have access to (facial expressions, tone of voice, body language etc.) However, the technologically-mediated environment still provides direct contact with the social world the ethnographer is studying, as participants in that setting communicate through online behaviour (Garcia et al., 2009). To suggest that the digital environment is any less important or real than the physical, does not take into account the very nature of these digital environments and the fact that they are not separate entities; they often co-exist in the same space. As Boyd suggests 'the internet is increasingly entwined in peoples' lives; it is both an imagined space and architectural place' (2008, p. 26).

Employing Facebook as both the field site and for all methods of data collection enabled me to experiment with the different tools within Facebook to further explore this digital environment while at the same time giving me access to this unique cohort of mothers who I may not otherwise have been able to access due to lifestyle factors and physical remoteness. I could design my project to seamlessly move through three phases of data collection while designing the data collection methods to take advantage of the unique asynchronous nature of SNSs like Facebook.

This seamlessness flowed through to the ability to transcribe interview and focus group data. The hybrid of digital and analogue note taking demonstrate how the digital supplemented the more traditional ethnographic practices and provided an accuracy and flexibility that would not be possible when recording traditional face-to-face encounters.

Finally, the use of the digital is often intangible and my own personal duality of Facebook use (both personally and as researcher) meant that my own role was blurred. While some may view this as a tension, I saw it as a positive due to the insights gained by an insider position. I have explored the unique opportunities and limitations of using Facebook as a research site and how this online approach differs from traditional ethnography, but also presented a case for this fully digital approach to data collection to be viewed as a viable alternative to traditional ethnography due to the highly digital nature of contemporary social life.

Note

Approval for the study was provided by the Australian Breastfeeding Association and Western Sydney University, Human Research Ethics Committee. All participants were issued with written information about the study and signed a consent form prior to the interviews and focus groups taking place. They were assured of the voluntary nature of participation, that they could withdraw at any time, and that their interview and focus group data would be treated confidentially.

References

- Agichtein, E, Castillo, C, Donato, D, Gionis, A, & Mishne, G. (2008). Finding high-quality content in social media. Paper presented at the International Conference on Web Search and Web Data Mining, New York.
- Atkinson, P, Delamont, S, Coffey, A, Lofland, J, & Lofland, L. (2007). *Handbook of ethnography*. London: Sage.
- Bailey, C. (2007). *A Guide to Qualitative Field Research*. California: Pine Forge Press.
- Bargh, J A, & McKenna, K Y. (2004). The internet and social life. *Annual Review of Psychology*, 55, 573.
- Beaulieu, A. (2004). Mediating ethnography: Objectivity and the making of ethnographies of the Internet. *Social Epistemology*, 18(2), 139-163.
- Boelstorff, T, Nardi, B, Pearce, C, & Taylor, T L. (2012). *Ethnography and virtual worlds: A handbook of method*. Princeton: Princeton University Press.
- Boyd, D. (2008). How can qualitative Internet researchers define the boundaries of their projects: A response to Christine Hine. In A. Markham & N. K. Baym (Eds.), *Internet Inquiry: Conversations about method* (pp. 26-32). London: Sage.
- Boyd, D M, & Ellison, N B. (2010). Social network sites: Definition, history and scholarship. *Engineering Management Review*, 38(3), 16-31.
- Braun, V, & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Broom, G M, & Dozier, D M. (1990). *Using research in public relations*. New Jersey: Prentice Hall.
- Chambliss, D F, & Schutt, R K. (2013). *Making sense of the social world: Methods of investigation* (4th ed.). Canada: Sage Publications.
- Cox, A, Clough, P, & Marlow, J. (2008). Flickr: A first look at user behaviour in the context of photography as serious leisure. *Information Research*, 13(1), 5.
- Delamont, S. (2004). Ethnography and participant observation. In C. Seale, G. Gobo & J. Gubrium (Eds.), *Qualitative research practices*. London: Sage.
- Dykes, F, & Flacking, R. (2016). *Ethnographic Research in Maternal and Child Health*. New York: Routledge.
- Ellison, N B. (2007). Social network sites: Definition, history and scholarship. *Journal of Computer-Mediated Communication*, 13, 210-230.
- Garcia, A C, Standlee, A I, Beckhoff, J, & Cui, Y. (2009). Ethnographic Approaches to the Internet and Computer-Mediated Communication. *Journal of Contemporary Ethnography*, 38(52), 52-84.
- Gilbert, E, & Karahalios, K. (2009). Predicting tie strength with social media. Paper presented at the Conference on Human Factors in Computing Systems, Boston.
- Hakken, D. (1999). *Cyborgs@Cyberspace?: An ethnographer looks at the future*. London: Routledge.
- Hammersley, M, & Atkinson, P. (2007). *Ethnography: Principles in practice* (3rd ed.). Wiltshire: The Cromwell Press.
- Hine, C. (2000). *Virtual ethnography*. London: Sage Publications Ltd.
- Hine, C. (2005). *Virtual methods* (C. Hine Ed.). London: Berg Publishers.

- Hine, C. (2007). Connective ethnography for the exploration of e-Science. *Journal of Computer-Mediated Communication*, 12(2), 618-634.
- Honeycutt, C, & Herring, S. (2009). Beyond microblogging: Conversation and collaboration via Twitter. Paper presented at the 42nd Hawaii International Conference on System Sciences, Hawaii.
- Humphreys, L. (2007). Mobile social networks and social practice: A case study of dodgeball. *Journal of Computer-Mediated Communication*, 13(1), 341-360.
- James, N, & Busher, H. (2009). *Online interviewing*. Thousand Oaks, CA: Sage.
- Java, A, Song, X, Finin, T, & Tseng, B. (2007). Why we Twitter: Understanding micro-blogging usage and communities. Paper presented at the Ninth WEBKDD and First SNA-KDD Workshop on Web Mining and Social Network Analysis.
- Jin, S V, Phua, J, & Lee, K M. (2015). Telling stories about breastfeeding through Facebook: The impact of user-generated content (UGC) on pro-breastfeeding attitudes. *Computers in Human Behavior*, 46, 6-17.
- Komito, L. (2011). Social media and migration: Virtual community 2.0. *Journal of the American Society for Information Science and Technology*, 62(6), 1075-1086.
- Kozinets, R V. (2010). *Netnography: Doing ethnographic research online*. London: Sage.
- Kwak, H, Lee, C, Park, H, & Moon, S. (2010). What is Twitter – a social network or a news media? Paper presented at the 19th World-Wide Web (WWW) Conference, Raleigh, NC.
- Leander, K M, & McKim, K K. (2003). Tracing the everyday 'sitings' of adolescents on the Internet: A strategic adaptation of ethnography across online and offline spaces. *Education, Communication and Information*, 3(2), 211-240.
- Markham, A. (2005). The methods, politics, and ethics of online ethnography. In N. Denzin & Y. Lincoln (Eds.), *Sage Handbook of Qualitative Research* (3rd ed., pp. 247-284). London: Sage.
- Markham, A N, & Baym, N K. (2009). *Internet inquiry*. Thousand Oaks, CA: Sage Publishing, Inc.
- Miller, D. (2011). *Tales from Facebook*. Cambridge: Polity Press.
- Miller, D, & Slater, D. (2000). *The Internet: An ethnographic approach*. Oxford: Berg.
- Morales, L. (2011). Google and Facebook users skew young, affluent, and educated. <http://www.gallup.com/poll/146159/facebook-google-users-skew-young-affluent-educated.aspx>
- Morgan, D, & Spanish, M. (1984). Focus groups: A new tool for qualitative research. *Qualitative Sociology*, 7(3), 253-270.
- Murthy, D. (2008). Digital Ethnography: An Examination of the Use of New Technologies for Social Research. *Sociology*, 42(5), 837-855.
- Oulasvirta, A, Lehtonen, E, Kurvinen, E, & Raento, M. (2010). Making the ordinary visible in microblogs. *Personal and Ubiquitous Computing*, 14(3), 237-249.
- Pink, S. (2009). *Doing sensory ethnography*. London: Sage.
- Pink, S, Horst, H, Postill, J, Hjorth, L, Lewis, T, & Tacchi, J. (2015). *Digital Ethnographies: Principles and practice* UK: Sage
- Postill, J, & Pink, S. (2012). Social media ethnography: The digital researcher in a messy web. *Media International Australia*, 145(1), 123-134.
- Potter, J, & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London: Sage.
- Prieur, C, Cardon, D, Beuscart, J, Pissard, N, & Pons, P. (2009). The strength of weak cooperation: A case study on Flickr. Retrieved 1st April, 2016, from <http://arxiv.org/abs/0802.2317>
- QSR International. (2015). What is NCapture? Retrieved 10 November, 2015, from <http://www.qsrinternational.com/Support/FAQs/What-is-NCapture>
- Rauniar, R, Rawski, G, Yang, J, & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information*, 27(1), 6-30.
- Robinson, L, & Schultz, J. (2009). New avenues for sociological inquiry: Evolving forms of ethnographic practice. *Sociology*, 43(4), 685-698.
- Sade-Beck, L. (2004). Internet ethnography: Online and offline. *International Journal of Qualitative Methods*, 3(2), 45-51.
- Sanjek, R. (1990). *Fieldnotes: The makings of anthropology*. London: Cornell University.
- Sensis. (2015). Sensis social media report May 2015: How Australian people and businesses are using social media. https://http://www.sensis.com.au/content/dam/sas/PDFdirectory/Sensis_Social_Media_Report_2015.pdf
- Smith, A E, & Humphreys, M S. (2006). Evaluation of unsupervised semantic mapping of natural language with Leximancer concept mapping. *Behavior Research Methods*, 38(2), 262-279.
- Stirling, E. (2014). 'I'm always on Facebook!': Exploring Facebook as a mainstream research tool and ethnographic site. In H. Snee, C. Hine, Y. Morey, S. Roberts & H. Watson (Eds.), *Digital Methods for Social Science: An Interdisciplinary Guide to Research Innovation* (pp. 256). London: Palgrave MacMillan.
- Teddlie, C, & Tashakkori, A. (2009). *Foundations of mixed methods research*. Thousand Oaks, CA: Sage Publishing, Inc.
- VanDoorn, G, & Eklund, A A. (2013). Face to Facebook: Social media and the learning and teaching potential of symmetrical, synchronous communication. *Journal of University Teaching & Learning Practice*, 10(1).
- Weber, R P. (1990). *Basic Content Analysis*. Newbury Park, CA: Sage.

Widdicombe, S, & Wooffitt, R. (1995). *The language of youth subcultures: Social identity in action*. London: Harvester Wheatsheaf.

Wittel, A. (2000). Ethnography on the move: From field to net to Internet. *Forum: Qualitative Social Research*, 1(1).

About the author

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4.2 Conclusion

This chapter presented an analysis of the unique methodology employed for this study via a publication titled, 'Facebook as a Netnographic Research Tool'. The paper described the fully online method of data collection for this study and argued that due to the digital nature of contemporary social life, this fully online method of data collection should be considered a mainstream ethnographic technique, due to the mediated nature of communities in the twenty first century. However, since the data was collected in 2013, there have been various revelations about Facebook and how others have misused its data. If conducted today, the participants may not have been so willing to take part due to insecurities relating to their privacy and safety of their data.

CHAPTER FIVE

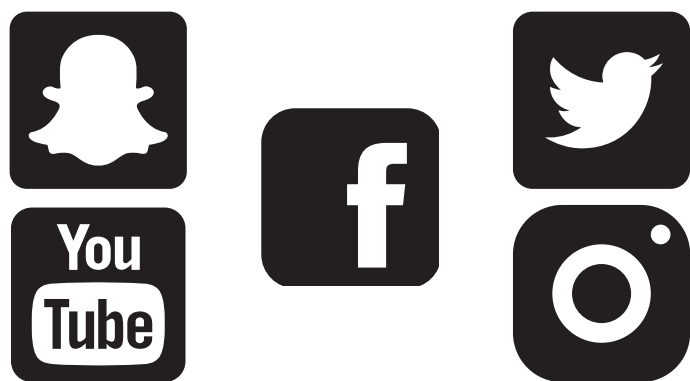
5 Breastfeeding Peer Support on Social Networking Sites

5.1 Publication relevance to thesis

Chapter five presents the publication: Bridges, N., Howell, G. V. J., & Schmied, V. (2018). Breastfeeding Peer Support on Social Networking Sites. *Breastfeeding Review*, 26(2), 17–27.

This paper presents the findings of the quantitative data collection for this study as it follows the activities of 15 individual ABA sanctioned closed Facebook groups. All wall posts and comments as images for these groups was captured over a four-week period between July 21 and August 17, 2013.

The dataset included n=778 wall posts that were coded as n=165 (21 percent) queries and n=613 (79 percent) shares. Of the queries (n=165), 36 percent posted with informational queries and 64 percent posted with informational and emotional queries. In terms of shares (n=613), 40 percent posted with informational shares and 60 percent posted with informational and emotional shares. Of the n=778 wall posts, 54 percent (n=418) were short (0–25 words); 26 percent (n=202) were medium (26–100 words) and 20 percent (n=158) were long (100+ words).



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Breastfeeding peer support on social networking sites

ABSTRACT

Employing an online ethnographic research approach, the purpose of this study was to describe the nature of breastfeeding peer support that members seek and receive via closed Facebook groups facilitated by the Australian Breastfeeding Association (ABA). The quantitative data collection for this netnography was undertaken by the researchers following the activities of 15 individual ABA-sanctioned closed Facebook groups. All wall posts and comments for these groups were captured as images over a 4-week period between July 21 and August 17, 2013.

The dataset included 778 wall posts that were coded as 165 (21%) queries and 613 (79%) shares. Of the queries (165), 36% posted with informational queries and 64% posted with informational and emotional queries. In terms of shares (613), 40% posted with informational shares and 60% posted with informational and emotional shares. Of the 778 wall posts, 54% (418) were short (0–25 words); 26% (202) were medium (26–100 words) and 20% (158) were long (100+ words).

The findings presented explore the characteristics and contents of the queries and comment responses, illustrating how Facebook can be used to provide social support in addition to learning and coping strategies in this online community.

Keywords: *breastfeeding, Facebook, online, social networking sites, peer support*

Breastfeeding Review 2018; 26(2), 17–27

INTRODUCTION

Supporting women to breastfeed is an important public health strategy, as the health benefits of breastmilk span the continuum of childhood, particularly newborn, infancy and early childhood (Sankar et al., 2015). It is important to note that breastfeeding is not only important for babies, but also mothers and families, in addition to having substantial economic benefits for the wider community (Victoria et al., 2016). The National Health and Medical Research Council of Australia (NHMRC) has endorsed the WHO/UNICEF strategy recommending infants be exclusively breastfed for the first 6 months and continue to be breastfed following the introduction of solid foods until at least 12 months of age (National Health & Medical Research Council, 2013).

Yet breastfeeding rates globally remain low. Only 43% of the world's newborns are put to the breast within one hour of birth (World Health Organization, 2014). Results from the *2010 Australian national infant feeding survey* (Australian Institute of Health and Welfare, 2011) indicate that 96%

of Australian mothers initiate breastfeeding. Thereafter, exclusive breastfeeding rates drop with less than half (39%) of babies still being exclusively breastfed at 3 months and only 15% at 5 months. Statistics from the *NSW mothers and babies 2016* report demonstrate the percentage of babies fully breastfed at the time of discharge from hospital decreased from 82.1% to 74.9% between 2012 and 2016 (Centre for Epidemiology and Evidence, 2017). This significant decrease in breastfeeding rates is an important health behaviour issue that warrants further examination.

Today, researchers view Facebook as an ongoing database of social activity with information constantly being added in real time. Behavioural artefacts found on Facebook can give researchers valuable insight into human behaviour (Graham, Sandy, & Gosling, 2011). Facebook popularity globally offers a unique way of exploring human behaviour with levels of validity that are difficult to replicate in most common research settings. Therefore, topics that have long been of interest to social

scientists, such as how people become acquainted, how social networks spread, and how people communicate their identities, can be examined in this online/digital context (Wilson, Gosling, & Graham, 2012).

Peer support via social networking sites (SNSs) such as Facebook is increasingly being used by women to seek information and support while breastfeeding (Jin, Phua, & Lee, 2015). The Australian Breastfeeding Association (ABA) has been supporting mothers to breastfeed since 1964 and is now providing this support through the establishment of closed Facebook groups. This paper seeks to further explore the nature of breastfeeding support within these Facebook groups.

LITERATURE REVIEW

Online communities and social networking sites (SNSs)

The World Wide Web was initially designed as a platform to facilitate information exchange between users. Social networks often house online communities as profile-based sites that encourage users with similar backgrounds and interests to develop and initiate relationships with one another. The aim of SNSs is to establish an online community that not only promotes the individual, but also emphasises their connections within the community (Howell & Taylor, 2011). Since their inception in the 1990s, online communities, in various forms, such as chat rooms, listservs, bulletin boards, newsgroups, and Web forums have served as a platform to bring together users with similar health conditions and life circumstances (Zhang, He, & Sang, 2013). Support groups in online communities provide a place to exchange advice, information and support (Miyata, 2002; Preece, 2001; Sharf, 1997; Strange, Fisher, Howat, & Wood, 2018; Taylor, Wells, Howell, & Raphael, 2012; Wellman & Frank, 2001).

SNSs such as Facebook are Web-based services that operate and provide support for users. They differ to traditional online support groups (OSGs) as they enable users to share user-generated content, post profile information, construct a list of friends and communicate with others using both synchronous and asynchronous messaging tools (Nolan, Hendricks, Williamson, & Ferguson, 2018). Being a member of an SNS community enables users to develop relationships with people who share similar interests, while accepting and incorporating social networking into their daily lives (Boyd & Ellison, 2010; Wink, 2010).

Since 2010, the use of SNSs has become a prominent social trend globally. As of June 2017, 79% of Australians use SNSs, which is 10 points higher than the previous year (69%). Frequency of use is also increasing with 59% accessing these sites at least once a day or more (up from 50% in 2016) and 35% checking social media

more than five times a day (26% in 2016) (Sensis, 2017, p. 12). In Australia, the appeal of SNSs is strongest among females and under 40s, with 69% of women using these sites every day or most days (60% in 2016) compared with 66% of men (Sensis, 2017, p. 13). Facebook is by far the dominant SNS in terms of usage with 97% of Australian female SNS users maintaining a Facebook profile compared with YouTube (43%), Instagram (41%) and Snapchat (36%) (Sensis, 2017, p. 18). The number of Australian households with access to the internet at home reached 7.7 million in 2014–15, representing 86% of all households (up from 83% in 2012–13) (Australian Bureau of Statistics, 2016).

Social networking sites (SNSs) and parenthood

Although the research surrounding SNSs and parenthood is limited, in their 2012 study Bartholomew, Schoppe-Sullivan, Glassman, Kamp Dush, & Sullivan (2012) examined new parents' Facebook consumption from a social capital perspective. This study revealed that Facebook use may play a central role in the lives of many new parents and that using SNSs such as Facebook can assist with some aspects of new parents' adjustment to parenthood (Bartholomew et al., 2012). Other research has revealed that online support and networks via SNSs can assist parents to connect with family, friends and parent support groups and also access resources that can provide parenting information and reassurance (Doty & Dworkin, 2014; McDaniel, Coyne, & Holmes, 2012; Niela-Vilen, Axelin, Salanterä, & Melender, 2014; Valtchanov, Parry, Glover, & Mulcahy, 2014). A recent Australian study by Strange et al. (2018) concluded that online communication helped to reduce isolation, kept families and friends connected, and provided immediate information and support for families.

Due to the interactive and collaborative nature of social networking, breastfeeding is a type of health activity that can be promoted effectively through SNSs. By joining online communities devoted to breastfeeding and sharing stories about their breastfeeding experiences on the sites, mothers are able to have common questions answered and their fears and challenges associated with this activity discussed and explained (Jin, Phua, & Lee, 2015). The majority of research confirms that the motivation for engagement on Facebook is the user's desire to keep in touch with peers (Saleh, Jani, Al Marzouqi, Al Khajeh, & Rajan, 2011).

There has been increasing interest in the manner in which new and expectant mothers seek information, reassurance, encouragement and reinforcement of breastfeeding via the internet. Research has found that breastfeeding promotion programs delivered online were more successful at significantly improving positive beliefs and intentions to breastfeed and made a greater contribution to breastfeeding knowledge than offline, healthcare-provider-based interventions (O'Connor, Brown, & Lewin, 2011; Pate, 2009).

It has been identified that two types of support can be offered via online communities: informational support (eg advice, suggestions, or helpful information) and emotional support (eg empathy, comfort and encouragement) (Coulson, 2005; Donelle & Hoffman-Goetz, 2008; Ginossar, 2008; Maloney-Krichmar & Preece, 2005; Wang, Kraut, & Levine, 2012).

Peer support and breastfeeding

Breastfeeding peer support is recognised as a vital intervention to support breastfeeding (Clark, Baker, McGirr, & Harris, 2018; McFadden et al., 2017; Phillips et al., 2018; Powell et al., 2018; Thomson, Crossland, & Dykes, 2011). Although qualitative research into women's experiences of breastfeeding peer support is limited, the evidence demonstrates that women value the support they receive from other mothers as they have similar experiences they can relate to through a shared language (Harari et al., 2018; Nankunda, Tumwine, Nankabirwa, & Tylleskar, 2010; Rossman et al., 2011; Trickey et al., 2018). In Australia, mother-to-mother support is provided by the ABA's 1200 trained volunteer breastfeeding counsellors and community educators, who provide services over the phone, online and face-to-face supporting families in their community. These services include the 24-hour National Breastfeeding Helpline, eCounselling, Live Chat, antenatal Breastfeeding Education Classes, local support groups and evidence-based information provided online and in literature and a range of publications. ABA breastfeeding counsellors are mothers who have breastfed and completed a Certificate IV in Breastfeeding Education. They work voluntarily to provide empathy, reassurance and up-to-date information to help other mothers (Australian Government Department of Health, 2017). In recent years, these support services have extended to providing peer support via SNSs such as Facebook, Instagram and Twitter.

This research study forms part of a broader project that aimed to fill the gap in the literature that exists, surrounding how breastfeeding mothers experience online support using closed Facebook groups. A paper reporting user experiences of these sites has been published and revealed the overarching theme of support and the four sub-themes of community, complementary, immediate and information (Bridges, 2016). These themes explicate the type of support the ABA is providing for breastfeeding mothers via the online community it has created with its SNSs via closed Facebook groups. Additionally, the specific breastfeeding topics that women are investigating via SNSs such as Facebook were also analysed and have been published (Bridges, Howell, & Schmied, 2018). Of the 72 queries that were specific breastfeeding questions, 55 (76%) were categorised into these three topic areas of breastfeeding management, breastfeeding and health, and breastfeeding and work, which are all themes universally recognised as some of the most common reasons for the cessation of breastfeeding, and important areas for future research.

Specifically, this paper seeks to further describe the nature of breastfeeding support within these Facebook groups including:

1. The frequency of posts of the two types of support (informational and emotional) and what types of responses these posts elicit
2. The congruence between the posts and responses.

METHODS

Employing an online ethnographic research approach, this study investigated how breastfeeding mothers experience online support using closed Facebook groups.

With the proliferation of SNSs including Facebook, communities now refer not only to people in a shared physical location, but also groups of people who congregate online (Chambliss & Schutt, 2013). Consequently, ethnographers are finding that in order to understand how communities work, they must follow these communities onto the internet and other technologically-mediated avenues of communications. In response to this migration to the digital space, ethnographers have invented some innovative ways to describe these online ethnographies over time. Most recently, Kozinets (2015) coined the term 'netnography', which is defined as the use of ethnographic methods to study online communities (James & Busher, 2009). Kozinets advocates an approach that treats the digital and physical field sites differently and argues that it is possible to separate the online and offline world. He makes the distinction between researching 'online communities' — those that are communities, having elements that cross into the physical space — and 'communities online' — those communities that exist solely in the digital space and argues that different approaches can be used to explore each (Kozinets, 2015).

Study site

The online ethnography took place in ABA's closed Facebook groups. These groups have been created for breastfeeding mothers to seek and provide support to their peers. Individual users can ask for support in one wall post and provide support by commenting on another. Therefore, individual users may be both support seekers and providers.

Sample, recruitment and data collection

The quantitative data collection for this netnography was undertaken by the researcher following the activities of 15 individual ABA-sanctioned closed Facebook groups. All wall posts and comments, as images, for these groups were captured over a 4-week period between 21 July and 17 August, 2013.

An online invitation was distributed in early 2013 via ABA email and Facebook inviting groups to nominate for participation in the project. The final 15 groups selected met the criteria as ABA closed groups that were the most active. Contact was made with the main administrator

of each group who then consulted the group members and distributed participant information sheets about the project. Consent was provided by each group administrator to access the Facebook group and information was posted when this would be occurring so if members did not want to post during that time, they could choose not to do so. At the time of data collection, there were 1846 group members among the 15 groups. The data were collected on 778 wall posts with a total of 2998 comments posted into the initial wall posts.

Coding scheme

This study employs manifest content analysis, which deals with the 'objective, systematic and quantitative description of the manifest content of communication' (Berelson, 1952, p. 18). This type of analysis deals with the visible, obvious components and focuses on the subject and context, emphasising differences and similarities within categories (Graneheim & Lundman, 2003).

The coding scheme was developed drawing on the published study of health networking sites (Liang & Scammon, 2011). Table 1 illustrates the coding scheme for wall posts and comments. The initial coding step was to divide each post into two categories: query or share. The queries were subcategorised and coded as either an informational query or informational and emotional query and the shares as either an informational share or informational and emotional share. The informational query/share was defined as '*asking for/providing information*' and the informational and emotional query/share as '*asking for/sharing information and expressing emotions*'. Further, the comments for each wall post were coded into three different subcategories: informational responses, emotional responses and informational and emotional responses. Interestingly, there were no comments identified that contained only emotion, as they were all accompanied by some element of information. Where the original poster replied to these comments, they were coded into the following three subcategories: informational comment responses, emotional comment responses and informational and emotional comment responses.

Table 2 establishes the coding scheme for the length and timeliness of wall posts and comments along three dimensions including length of wall posts, length of responses to wall posts and timeliness of responses to wall posts.

To ensure intercoder reliability of the coded data, three independent researchers were asked to code a sample of the data collected. Intercoder reliability refers to the extent to which two or more independent coders agree on the coding of the content of interest with an application of the same coding scheme. Three independent researchers were provided with 50 posts and asked to code the data to the coding scheme. These results were then compiled

and analysed, with the results of 91% in reliability across their coding results.

Coding

Drawing from Kozinets (2010) and Liang and Scammon (2011) the primary unit of analysis employed for this study was a wall (discussion) post and the subsequent responses to the post on Facebook. SPSS was employed to enable the researchers to perform quantitative analysis of the coded data from each wall post and the subsequent responses (comments) to the initial post. Individual users may respond more than once to the same wall post or comment on other wall posts in the same or different topics. Therefore, the analysis of the data categories of the wall posts and subsequent comments included the type of post, length of post and response, in addition to the theme of the wall post. Each post was counted and for the analysis of data categories, each user was allocated a specific respondent code. Using SPSS, quantitative analysis of the coded data was undertaken. First, descriptive statistics were calculated for each data category. The data was then tested using Pearson's chi-squared analysis between the initial post or share (informational or informational and emotional) and the resulting comments (informational, emotional, or informational and emotional). In addition, further quantitative analysis was undertaken to identify the timeliness of the responses to initial posts and shares, the length of the comments and the response to comments posted in the thread. Finally, the analysis of this categorical data explored whether the type of initial wall post influenced how other users responded.

RESULTS

The initial wall posts were coded as either queries or shares. The dataset included 778 wall posts that were coded as 165 (21%) queries and 613 (79%) shares. Of the 165 queries, 36% posted with informational queries and 64% posted with informational and emotional queries. In terms of shares (613), 40% posted with informational shares and 60% posted with informational and emotional shares. Of the 778 wall posts, 54% (418) were short (0–25 words); 26% (202) were medium (26–100 words) and 20% (158) were long (100+ words).

The 2280 responses to the wall posts (comments) were coded into informational comments 23% (528), emotional comments 18% (421) and Informational and emotional comments 58% (1,331).

The 718 comment responses included 15% (111) informational, 16% (114) emotional and 69% (493) informational and emotional.

This study sought to explore the frequency of posts of the two types of support (informational and emotional) and what types of responses these posts elicit. Presented below are the findings about the characteristics and contents

Table 1. Coding scheme for wall posts and comments.

Wall post/ comment	Category	Subcategory	Description	Example
Types of wall posts	Query	Q1 – Informational query	Asking for information (eg suggestions or experiences)	‘When does breast milk dry up?’
		Q2 – Informational and emotional query	Asking for information and expressing emotions	‘I want to feel that it is ok to settle him down with breastfeeding whenever necessary’
	Share	S1 – Informational share	Sharing links, articles, photos, videos, memes information or stories	‘Strange experience at childcare today...’
		S2 – Informational and emotional share	Sharing information and emotions	‘It still amazes me how many people think I should have stopped breastfeeding’
Types of comments		C1 – Informational responses	Offering information (eg facts, suggestions, links)	‘Colostrum starts about 16 weeks’
		C2 – Emotional responses	Expressing emotions (eg empathy, hope)	‘No need to be embarrassed’
		C3 – Informational and emotional responses	Offering information and expressing emotions	‘I always find my recovery is slower coz I’m up half the night with wakeful babies and toddlers! But, it does pass.... Good luck ;-)’
Types of responses to comments		CR1 – Informational comment responses	Asking for or providing further information or indicating thoughts or next actions based on comments	‘I’m glad I’m not alone! I did initially think something sinister was to blame.’
		CR2 – Emotional comment responses	Expressing certain emotions (eg gratification)	‘Thanks ladies you are awesome!’
		CR3 – Informational and emotional comment responses	Asking for or providing further information and expressing emotions	‘Thank you! I will head to the shops this afternoon’

Table 2. Coding scheme for length and timeliness of wall posts and comments.

Category	Subcategory	Description
Length of wall posts	L1 – Short	Wall posts with no more than 25 words
	L2 – Medium	Wall posts with 26 to 100 words
	L3 – Long	Wall posts with more than 100 words
Length of responses to wall posts	R1 – Short	Wall posts with no more than 5 comments
	R2 – Medium	Wall posts with 6 to 15 comments
	R3 – Long	Wall posts with more than 15 comments
Timeliness of responses to wall posts	TR1 – Early	Responding to wall posts within 2 hours
	TR2 – Late	Responding to wall posts between 2 to 8 hours
	TR3 – Very late	Responding to wall posts after 8 hours

of queries, shares, comments and comment responses illustrating the ways in which individual users engaged with this channel to ask for, receive and share information and experiences about breastfeeding and parenting.

Characteristics of queries, shares and comments

Queries and shares

The 165 queries were coded as follows: 59 (36%) informational queries and 106 (64%) that were a combination of informational and emotional. There were no wall posts identified in the data that were just emotional. All queries also contained some type of request for or sharing of information.

When sharing (613) information from the wall posts: 40% (248) were informational shares and 60% (365) were a combination of informational and emotional.

Comments (support giving)

Support providers offered comments that matched the query and answered them in an accurate and timely manner. There were 2280 comments and 718 comment responses posted in 778 threads. The length of thread varied with 76% short (up to 5 comments); 19% medium (6 to 15 comments) and 5% long (>15 comments). The results indicated that the types of support-giving comments were significantly associated with the types of support-seeking posts (queries). Like the original wall posts, among the 2280 comments responding to these posts, the highest percentage (59%) were a combination of informational and emotional comments.

A chi-square test of independence was calculated comparing the frequency of the following:

1. informational, and informational and emotional queries
2. informational, emotional and informational and emotional comments.

A significant interaction was found ($\chi^2(6) = 231.997$). Correlation analysis indicates that the query post type and comment response type were significantly associated. Further the phi value (0.278) indicated a moderate correlation between query and comment type. Therefore, differences in 'query type' were related to differences in 'comment type'. This also revealed that the type of query and comment matched, as a total of 89.1% of informational queries received informational responses (informational = 39.6%, informational and emotional = 49.5%).

In addition, a chi-square test of independence was calculated comparing the frequency of the following:

1. informational, and informational and emotional shares
2. informational, emotional, and informational and emotional comments.

Interestingly, the test found a significant interaction ($\chi^2(6) = 148.504$). Correlation analysis indicated that

the share-post type and comment-response type were significantly associated. Further the phi value (0.223) indicated a moderate correlation between share and comment type. Therefore, the differences in 'share type' were related to differences in 'comment type'. In addition, the analysis also indicated that informational shares were more likely to receive informational and emotional comments (37.8%) rather than pure informational comments (17.2%). These findings combined indicated that the support from support providers matched the requests from support seekers, providing congruency and also relationality.

Second, the data indicated that among the wall posts, the majority (76%) were short (posts with up to 5 comments) and the majority of comments (71%) were timely (posted within 8 hours of the initial wall post). Furthermore, 48% of comments were posted in less than 2 hours of the initial post.

Third, the results found that support providers demonstrated credibility by responding with comments that were very clear about what they did and did not consider themselves 'expert' in. They were also very careful not to provide medical advice or discuss products and healthcare providers by name so as to ensure a safe and ethical community. Perhaps the admins removed comments that discussed these issues, or it may have been that none were made as the culture of these groups meant that community members were aware of what was and was not appropriate content. This is a reflection of the ABA's Code of Ethics that has been designed to protect the Association, its counsellors, community educators, members and spokespersons as individuals (Australian Breastfeeding Association, 2018). For example, one support seeker posted about the possibility of her baby having a lip-tie, a condition that can cause attachment issues and nipple damage for breastfeeding mothers. One support provider commented that she did not have much expertise in this area and suggested the mother contact an expert.

I have to say I'm not hugely experienced in assessing the severity of lip-ties. I do see lots of tongue-ties at work though. Wonder if it's worth making an appointment with the dentist just for a look?

Finally, support providers offered comments that moved beyond the scope of the original query. For example, when one support provider commented on a wall post by a mother concerned about giving her baby antibiotics, in addition to offering her empathy and reassurance, she also went on to provide the mother with links to additional information about rebuilding the baby's gut flora (eg by fermenting her own yogurt and sauerkraut). One support seeker's question can encourage others to ask more questions about the topic at hand and support providers may extend the original wall post by engaging in conversation with other commenters. For example, one wall post was querying whether babies get the same amount of antibodies from exclusively expressed breastmilk as they do from drinking it directly from the

breast. One commenter replied, *'I think about this a lot, with two allergy bubbas ...'* and went on to describe their related health issues.

Comment responses (follow-up)

It was also observed that support seekers (wall posters) provided feedback to support providers (commenters) by posting follow-up posts (comment responses). The data showed that, of the 2998 comments posted, 718 (24%) were comments from the original support seeker either providing extra information or demonstrating gratitude to the support providers. Many of the comment responses were providing an update of the mother's situation as per this example:

Wall post:

I was hoping someone would know if there was anything I could take for a particularly nasty cold/flu? I have had conflicting advice from pharmacists and hoping there is something I can take to relieve the symptoms. Even any home remedies anyone knows about?

Comment:

Chicken noodle veggie soup with lots of ginger

This comment was also followed by many others with their various soup recipes.

Comment response:

Shopping for soup ingredients done, time to fill the house with yummy smells.

This discussion demonstrated how the 'support seeker engaged in problem-focused coping' (Liang & Scammon, 2011, p. 327). In the initial wall post, she identified a problem, ie she was seeking home remedies to relieve cold/flu symptoms as she had received conflicting advice. In the responding comments, she received a variety of soup recipes that support providers claimed were helpful and in the comment response, the support seeker revealed the information was useful as she did go shopping and was in the process of preparing soup. Interestingly, all of the responses were about soup except for one that referred the mother to a medicines information hotline.

In summary, these findings indicate that these closed Facebook groups provided informational support for problem-focused coping and emotional support for emotion-focused coping.

DISCUSSION

Various studies have identified the benefits of computer-mediated social support groups that not only accommodate the individuals affected but also the parents, family and carers (Haberstroh & Moyer, 2012; Liang & Scammon, 2011; Strange et al., 2018; Vilhauer,

McClintock, & Matthews, 2010). Results from a previous paper about this study demonstrated how participation in an ABA Facebook social support group provided a range of benefits for its members, including the provision of immediate information and support for breastfeeding mothers (Bridges, 2016).

While breastfeeding peer support groups such as those created by the ABA were initially developed as face-to-face meetings with mothers and babies, online forums and social media channels have altered and enhanced the connectedness for individuals. Research from Taylor et al. (2012) identified that Facebook now accommodates individuals whose main objective when joining online groups is meeting people with similar experiences, and to not only to help themselves but to help others at the same time.

When sharing support, the combination of informational and emotional shares was most often used, consistent with the type of queries and previous studies surrounding breastfeeding peer support. The literature widely acknowledges that the opportunity to provide information and offer support is an important therapeutic process that is integral to support groups (Pagano, Post, & Johnson, 2011). First identified by Riessman in 1965, the 'helper-therapy principle' describes how a support group participant feels an increased sense of self-efficacy and self-esteem through the act of helping others.

The most common form of support provided by community members who commented on wall posts was a combination of informational and emotional. By definition, the purpose of peer support is to provide both informational and emotional assistance by a 'created social network member who possesses experiential knowledge' (Dennis, 2003, p. 329). Peer supporters draw on their shared experiences to provide advice, information, and empathic understanding to those seeking assistance (Bartone, Bartone, Gileno, & Violanti, 2018).

The majority of wall posts resulted in short threads (with less than six comments), and were answered in a timely manner (with most comments being made within 8 hours of the initial wall post). It appears that one of the reasons users engage and connect with these communities is the timeliness of information provided and the support offered. This finding supports the previous research by Liang and Scammon (2011) that found the purpose of short posts is to achieve one major goal — to solve the problems support seekers face in a timely fashion. This function results in posts with 'highly concentrated and brief information' (Liang & Scammon, 2011, p. 327). The outcome supports the findings from a recent qualitative study where immediacy and information were two of the four sub-themes that describe the nature of online breastfeeding support within the Facebook environment (Bridges, 2016).

Generally speaking, humans use two major coping strategies: problem-focused and emotion-focused coping (Basharat, Zubair, & Mujeeb, 2014; O'Brien & DeLongis, 1996). Lazarus and Folkman (1984) have described problem-focused coping as involving efforts to modify the problem being faced and typically includes elements such as identifying the problem, finding and evaluating alternative courses of action, choosing the most appropriate solution and taking actions (Weiten, Lloyd, & Dunn, 2003). Initially, the support seekers who were creating wall posts with their queries were identifying the problem that needs to be solved. This was followed by informational responses provided as comments to the initial wall post by support providers who can assist the support seeker to actively understand and evaluate different courses of action. After discussing problems with support providers, support seekers then had the appropriate information about different possible solutions that may provide them with the confidence to make a decision and take action.

Emotion-focused coping is usually defined as the act of managing the emotional distress associated with the situation at hand (Lazarus & Folkman, 1984). The range of emotion-focused strategies is quite broad and includes strategies such as denial, describing and venting emotions, positive relaying of events and seeking out social support (Baker & Berenbaum, 2007). The aim of emotion-focused coping is to reduce emotional distress associated with a particular situation (Carver, Scheier, & Weintraub, 1989). Research indicates that people who obtain emotional support show less emotional distress (Alferi, Carver, Antoni, Weiss, & Duran, 2001; Krumholz et al., 1998; Kulik & Mahler, 1993).

However, it is sometimes difficult for people to accept emotional support, as it may not always arrive at the right time. It is common to receive unwanted advice and this act of passively receiving emotional support from their social network may lead to the individual feeling overwhelmed by the level and nature of advice they receive (Taylor, 2003). In the case of participating in online SNSs such as Facebook, support seekers are actively seeking support from their virtual community, therefore increasing the chance that they will receive the right emotional support at the right time (Liang & Scammon, 2011).

These groups enable participants to utilise the platform to share information and experiences with each other and most importantly to exchange social support which is crucial in parenting a child (Baker & Yang, 2018; Razurel & Kaiser, 2015; Schrag & Schmidt-Tieszen, 2014). The members of these communities have reported that engaging with the Facebook group and connecting to other breastfeeding mothers benefited them in a number of important ways, such as increased confidence in their parenting decisions and philosophies (Bridges, 2016). It appears that through posting information, individuals

derive a sense of purpose and provide both informational and emotional support to each other.

However, the nature of this social support seems to be different from that experienced in traditional face-to-face parenting groups (Kruske, Schmied, & Cook, 2007; Strange, Bremner, Fisher, Howat, & Wood, 2016), whether they be hosted by the ABA or other organisations. The type of support that women were seeking was primarily informational, with additional emotional support provided in the form of comments and responses to comments with supportive language. Due to the fact that there were no posts (queries or shares) that were only emotional (did not contain any request for or sharing of information), Facebook group participation seemed more functional, providing information and probably confirming positions that the posters take and the views they want reinforced. They did not seem to provide emotional support through relationality in the same way that a face-to-face support group does.

LIMITATIONS

One limitation of this study is that there were no comparisons of the nature of participation of members of online groups with those in face-to-face groups and this would be an interesting line of enquiry for future study. The fact that mothers receive many different sources of information that may often conflict was not investigated further in this study but is also a recommendation for further research. These findings could also be further expanded to other social support groups so that the potential of Facebook as a platform for social support groups can be further quantified and then strategies developed to enhance the effectiveness of such groups in building resilience within communities. Another limitation is that the participants were all members of a specific and like-minded group of women.

CONCLUSION

The findings presented in this paper explore the characteristics and contents of the queries and comment responses of these ABA closed Facebook groups, explaining how Facebook can be used to provide social support in addition to learning and coping strategies in this online community. The findings indicate that the support from support providers matched the requests from support seekers, providing congruency and also relationality. The majority of posts were short and timely and the results also found that support providers demonstrated credibility by responding with comments that were very clear about what they did and did not consider themselves 'expert' in.

Overwhelmingly, breastfeeding peer support is the key purpose of these online groups. Historically, women would find this support and knowledge within their own family unit. In more recent history, mothers' groups were established to fill the gap and provide this vital support

to women. Today, we have witnessed a move to online communities in an effort to provide this information and support in a more immediate way to meet the needs of the modern mother.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest.

REFERENCES

- Alferi, S. M., Carver, C. S., Antoni, M. H., Weiss, S., & Duran, R. E. (2001). An exploratory study of social support, distress, and life disruption among low-income hispanic women under treatment for early stage breast cancer. *Health Psychology, 20*(1), 41–46.
- Australian Breastfeeding Association. (2018). *Code of ethics*. Retrieved from <https://www.breastfeeding.asn.au/policy/code-ethics>
- Australian Bureau of Statistics. (2016). *Household use of information technology, Australia, 2014–15*. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>
- Australian Government Department of Health. (2017). *Australian Breastfeeding Association*. Retrieved from <https://www.healthdirect.gov.au/partners/australian-breastfeeding-association>
- Australian Institute of Health and Welfare. (2011). *2010 Australian national infant feeding survey: Indicator results*. Retrieved from <http://www.aihw.gov.au/publication-detail/?id=10737420927>
- Baker, B., & Yang, I. (2018). Social media as social support in pregnancy and postpartum. *Sexual & Reproductive Healthcare, 17*, 31–34.
- Baker, J. P., & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion, 21*(1), 95–118.
- Bartholomew, M. K., Schoppe-Sullivan, S. J., Glassman, M., Kamp Dush, C. M., & Sullivan, J. M. (2012). New parents' Facebook use at the transition to parenthood. *Family Relations, 61*(3), 455–469.
- Bartone, P. T., Bartone, J. V., Gileno, Z., & Violanti, J. M. (2018). Exploration into best practices in peer support for bereaved survivors. *Death Studies, 42*(9), 555–568.
- Basharat, A., Zubair, A., & Mujeeb, A. (2014). Psychological distress and coping strategies among families of missing persons in Pakistan. *Journal of the Indian Academy of Applied Psychology, 40*(2), 211–220.
- Berelson, B. (1952). *Content analysis in communication research*. Glencoe, Illinois: The Free Press.
- Boyd, D. M., & Ellison, N. B. (2010). Social network sites: Definition, history and scholarship. *Engineering Management Review, 38*(3), 16–31.
- Bridges, N. (2016). The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review, 24*(1), 11–20.
- Bridges, N., Howell, G. V. J., & Schmied, V. (2018). Exploring breastfeeding support on social media. *International Breastfeeding Journal, 13*(22), 1–9.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267–83.
- Centre for Epidemiology and Evidence. (2017). *NSW mothers and babies 2016*. Retrieved from: <http://www.health.nsw.gov.au/hsnsw/Publications/mothers-and-babies-2016.pdf>
- Chambliss, D. F., & Schutt, R. K. (2013). *Making sense of the social world: Methods of investigation* (4th ed.). Canada: Sage Publications.
- Clark, A., Baker, S. S., McGirr, K., & Harris, M. (2018). Breastfeeding peer support program increases breastfeeding duration rates among middle- to high-income women. *Breastfeeding Medicine, 13*(2), 112–115.
- Coulson, N. S. (2005). Receiving social support online: An analysis of a computer-mediated support group for individuals living with irritable bowel syndrome. *Cyberpsychology and Behavior, 8*, 580–584.
- Dennis, C. L. (2003). Peer support within a health care context. *International Journal of Nursing Studies, 40*(3), 321–332.
- Donelle, L., & Hoffman-Goetz, L. (2008). An exploratory study of Canadian Aboriginal online health care forums. *Health Communication, 23*(3), 270–281.
- Doty, J. L., & Dworkin, J. (2014). Online social support for parents: A critical review. *Marriage & Family Review, 50*(2), 174–198.
- Ginossar, T. (2008). Online participation: A content analysis of differences in utilization of two online cancer communities by men and women, patients and family members. *Health Communication, 23*(1), 1–2.
- Graham, L. T., Sandy, C. J., & Gosling, S. D. (2011). Manifestations of individual differences in physical and virtual environments. In T. Chamorro-Premuzic, S. von Stumm, & A. Furnham (Eds.), *Handbook of individual differences*. Oxford: Wiley-Blackwell.
- Graneheim, U. H., & Lundman, B. (2003). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today, 24*(2), 105–112.
- Haberstroh, S., & Moyer, M. (2012). Exploring an online self-injury support group: Perspectives from group members. *The Journal for Specialists in Group Work, 37*(2), 113–132.
- Harari, N., Rosenthal, M. S., Bozzi, V., Goeschel, L., Jayewickreme, T., Onyebeke, C., . . . Perez-Escamilla, R. (2018). Feasibility and acceptability of a text message intervention used as an adjunct tool by WIC breastfeeding peer counsellors: The LATCH pilot. *Maternal & Child Nutrition, 14*(1).
- Howell, G. V., & Taylor, M. (2011). When a crisis happens, who turns to Facebook and why? *Asia Pacific Public Relations Journal, 12*(2).
- James, N., & Busher, H. (2009). *Online interviewing*. Thousand Oaks, CA: Sage.
- Jin, S. V., Phua, J., & Lee, K. M. (2015). Telling stories about breastfeeding through Facebook: The impact of user-generated

content (UGC) on pro-breastfeeding attitudes. *Computers in Human Behavior*, 46, 6–17.

Kozinets, R. V. (2010). *Netnography: Doing ethnographic research online*. London: Sage.

Kozinets, R. V. (2015). *Netnography: Redefined* (2nd ed.). Thousand Oaks, CA: Sage.

Krumholz, H. M., Butler, J., Miller, J., Vaccarino, V., Williams, C. S., Leon, C. F. M., . . . Berkman, L. F. (1998). Prognostic importance of emotional support for elderly patients hospitalized with heart failure. *American Heart Association*, 97(10), 958–964.

Kruske, S., Schmied, V., & Cook, M. (2007). The ‘earlybird’ gets the breastmilk: Findings from an evaluation of combined professional and peer support groups to improve breastfeeding duration in the first eight weeks after birth. *Maternal & Child Nutrition*, 3(2), 108–119.

Kulik, J. A., & Mahler, H. I. (1993). Emotional support as a moderator of adjustment and compliance after coronary artery bypass surgery: A longitudinal study. *Journal of Behavioral Medicine*, 16(1), 45–63.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Liang, B., & Scammon, D. L. (2011). E-word-of-mouth on health social networking sites: An opportunity for tailored health communication. *Journal of Consumer Behaviour*, 10(6), 322–331.

Maloney-Krichmar, D., & Preece, J. (2005). A multilevel analysis of sociability, usability, and community dynamics in an online health community. *ACM Transactions on Computer-Human Interaction*, 12(2), 201–232.

McDaniel, B. T., Coyne, S. M., & Holmes, E. K. (2012). New mothers and media use: Associations between blogging, social networking, and maternal well-being. *Maternal & Child Nutrition*, 16(7), 1509–1517.

McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., . . . MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies *Cochrane Database of Systematic Reviews*.

Miyata, K. (2002). Social support for Japanese mothers online and offline. In B. Wellman & C. Haythornthwaite (Eds.), *The internet in everyday life* (pp. 520–548). Malden, MA: Blackwell Publishers.

Nankunda, J., Tumwine, J. K., Nankabirwa, V., & Tylleskar, T. (2010). ‘She would sit with me’: Mothers’ experiences of individual peer support for exclusive breastfeeding in Uganda. *International Breastfeeding Journal*, 5(16), 16.

National Health & Medical Research Council. (2013). *Infant feeding guidelines: Information for health workers (2012)*. Retrieved from <https://www.nhmrc.gov.au/guidelines-publications/n56>

Niela-Vilen, H., Axelin, A., Salantera, S., & Melender, H. L. (2014). Internet-based peer support for parents: A systematic integrative review. *International Journal of Nursing Studies*, 51(11), 1524–1537.

Nolan, S., Hendricks, J., Williamson, M., & Ferguson, S. (2018). Social networking sites (SNS) as a tool for midwives to enhance social capital for adolescent mothers. *Midwifery*, 62(2018), 119–127.

O’Connor, M. E., Brown, E. W., & Lewin, L. O. (2011). An Internet-based educational program improves breastfeeding

knowledge of maternal-child healthcare providers. *Breastfeeding Medicine*, 6(6), 421–427.

O’Brien, T. B., & DeLongis, A. (1996). The interactional context of problem-, emotion-, and relationship-focused coping: The role of the big five personality factors. *Journal of Personality*, 64(4), 775–813.

Pagano, M. E., Post, S. G., & Johnson, S. M. (2011). Alcoholics Anonymous-related helping and the helper therapy principle. *Alcoholism Treatment Quarterly*, 29(1), 23–34.

Pate, B. (2009). A systematic review of the effectiveness of breastfeeding intervention delivery methods. *Journal of Obstetric, Gynaecologic and Neonatal Nursing*, 38(6), 642–653.

Phillips, R., Copeland, L., Grant, A., Sanders, J., Gobat, N., Tedstone, S., . . . Brown, A. (2018). Development of a novel motivational interviewing (MI) informed peer-support intervention to support mothers to breastfeed for longer. *BMC Pregnancy Childbirth*, 18(1), 90.

Powell, R. M., Mitra, M., Smeltzer, S. C., Long-Bellil, L. M., Smith, L. D., Rosenthal, E., & Iezzoni, L. I. (2018). Breastfeeding among women with physical disabilities in the United States. *Journal of Human Lactation*, 34(2), 253–261.

Preece, J. (2001). Online communities: Usability, sociability, theory and methods. In R. Earnshaw, R. Guedj, A. V. Dam, & T. Vince (Eds.), *Computing, online communities and virtual environments*. Amsterdam: Springer Verlag.

Razurel, C., & Kaiser, B. (2015). The role of satisfaction with social support on the psychological health of primiparous mothers in the perinatal period. *Women Health*, 55(2), 167–186.

Riessman, F. (1965). The ‘helper’ therapy principle. *Social Work*, 10(2), 27–32.

Rossman, B., Engstrom, J. L., Meier, P. P., Vonderheid, S. C., Norr, K. F., & Hill, P. D. (2011). ‘They’ve walked in my shoes’: Mothers of very low birth weight infants and their experiences with breastfeeding peer counselors in the neonatal intensive care unit. *Journal of Human Lactation*, 27, 14–24.

Saleh, F., Jani, H., Al Marzouqi, M., Al Khajeh, N., & Rajan, A. (2011). *Social networking by the youth in the UAE: A privacy paradox*. Paper presented at the 2011 International Conference and Workshop on IEEE. <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6107957>

Sankar, M. J., Sinha, B., Chowdhury, R., Bhandari, N., Taneja, S., Martinez, J., & Bahl, R. (2015). Optimal breastfeeding practices and infant and child mortality: A systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 3–13.

Schrag, A., & Schmidt-Tieszen, A. (2014). Social support networks of single young mothers. *Child and Adolescent Social Work Journal*, 31(4), 315–327.

Sensis. (2017). *Sensis social media report 2017*. Retrieved from: <https://www.sensis.com.au/asset/PDFdirectory/Sensis-Social-Media-Report-2017.pdf>

Sharf, B. F. (1997). Communicating breast cancer on-line: Support and empowerment on the internet. *Women and Health*, 26(1), 65–84.

Strange, C., Bremner, A., Fisher, C., Howat, P., & Wood, L. (2016). Mothers’ group participation: Associations with social capital, social support and mental well-being. *Journal of Advanced Nursing*, 72(1), 85–98.

Strange, C., Fisher, C., Howat, P., & Wood, L. (2018). 'Easier to isolate yourself...there's no need to leave the house' – A qualitative study on the paradoxes of online communication for parents with young children. *Computers in Human Behavior*, 83(2018), 168–175.

Taylor, M., Wells, G., Howell, G. V., & Raphael, B. (2012). The role of social media as psychological first aid as a support to community resilience building. *Australian Journal of Emergency Management*, 27(1), 20–26.

Taylor, S. E. (2003). *Health Psychology* (6th ed.). New York: McGraw-Hill.

Thomson, G., Crossland, N., & Dykes, F. (2011). Giving me hope: Women's reflections on a breastfeeding peer support service. *Maternal & Child Nutrition*, 8(3), 340–353.

Trickey, H., Thomson, G., Grant, A., Sanders, J., Mann, M., Murphy, S., & Paranjothy, S. (2018). A realist review of one-to-one breastfeeding peer support experiments conducted in developed country settings. *Maternal & Child Nutrition*, 14(1), e12559.

Valtchanov, B. L., Parry, D. C., Glover, T. D., & Mulcahy, C. M. (2014). Neighborhood at your fingertips: Transforming community online through a Canadian social networking site for mothers. *Gender Technology and Development*, 18(2), 187–217.

Victora, C. G., Bahl, R., Barros, A. J. D., Franca, G. V. A., S, H., & Krasevec, J. (2016). Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *Lancet*, 387(10017), 475–490.

Vilhauer, R. P., McClintock, M. K., & Matthews, A. K. (2010). Online support groups for women with metastatic breast cancer: A feasibility pilot study. *Journal of Psychosocial Oncology*, 28(5), 560–586.

Wang, Y., Kraut, R., & Levine, J. M. (2012). *To stay or leave?: The relationship of emotional and informational support to commitment in online health support groups*. Paper presented at the ACM 2012 Conference on Computer Supported Cooperative Work.

Weiten, W., Lloyd, M. A., & Dunn, D. S. (2003). *Psychology applied to modern life: Adjustment in the 21st century* (7th ed.). Florence, KY: Wadsworth Publishing.

Wellman, B., & Frank, K. (2001). Network capital in a multi-level world: Getting support from personal communities. In N. Lin, R. Burt, & K. Cook (Eds.), *Social capital: theory and research*. Hawyorthorne, NY: Aldine de Gruyter.

Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. *Perspectives on Psychological Science*, 7(3), 203–220.

Wink, D. M. (2010). Social networking sites. *Nurse Educator*, 35(2010), 49–51.

World Health Organization. (2014). *Infant and young child feeding*. In World Health Organization (Ed.). Geneva.

Zhang, Y., He, D., & Sang, Y. (2013). Facebook as a platform for health information and communication: A case study of a diabetes group. *Journal of Medical Systems*, 37(3), 1–12.

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5.2 Conclusion

This chapter presents the quantitative findings of the first stage of data collection. All wall posts and comments for 15 individual ABA sanctioned closed Facebook groups were captured over a four-week period between July 21 and August 17, 2013.

The data illustrates that breastfeeding peer support is the key purpose of these online groups. Historically, women would find this support and knowledge within their own family unit. In more recent history, mothers' groups were established to fill the gap and provide this vital support to women. In 2018 online communities provide this information and support in a more immediate way to meet the needs of the modern mother. The findings presented describe the characteristics and contents of the queries and comment responses, explaining how Facebook can be used to provide social support in addition to learning and coping strategies in this online community.

CHAPTER SIX

6 The Faces of Breastfeeding Support: Experiences of Mothers Seeking Breastfeeding Support Online

6.1 Publication relevance to thesis

Chapter six presents the publication: Bridges, N. (2016). The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review*, 24(1), 11–20.

The researcher submitted this paper to the 2015/16 Mary Paton Research Award and was judged the winning entry. The Mary Paton Research Award is a national biennial award that celebrates excellence in breastfeeding research.

This paper presents findings of online depth interviews conducted with the administrators and online focus groups conducted with the members of three closed Facebook groups involved in the study.

Nicole Bridges



The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online

ABSTRACT

The aim of this study was to advance understanding of the experiences of mothers using closed Facebook groups attached to the Australian Breastfeeding Association (ABA) and how these mothers find and share breastfeeding support and information using this forum.

The study involved members of three closed Facebook groups that were chosen as interesting cases for study, based on the volume and nature of their posts. Members of these three groups then participated in online depth interviews and online semi-structured focus groups.

The overarching theme identified was **support**, with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: community, complementary, immediate and information. It was found that social networking sites (SNSs) provide support from the trusted **community**. It is **immediate**, it **complements** existing support or services that ABA provides and also provides practical and valuable **information** for its users.

Keywords: *breastfeeding, support, Facebook, online, social networking sites, peer support*

Breastfeeding Review 2016; 24(1): 11–20

INTRODUCTION

Human milk has evolved over thousands of years to meet the specific needs of human infants (Hector, Webb, & Lymer, 2004). It contains all the nutrients a baby needs for at least the first 6 months of life and continues to be the most important part of their diet throughout the first year, supplying half or more of their nutrients to their first birthday and up to one third to their second birthday and beyond (Day, 2006). Health outcomes differ substantially for mothers and infants who formula-feed compared with those who breastfeed (Stuebe, 2009), even in developed countries such as Australia.

The way a mother decides to nourish her baby is often an emotive decision, as there is a powerful link between 'good' mothering and breastfeeding; that is, 'a good mother breastfeeds' (Sheehan, Schmied, & Barclay, 2013). A woman's decision to breastfeed is influenced by a number of factors: demographic, psychological,

cultural and social, practical and professional support (Dennis, Hodnett, Gallop, & Chalmers, 2002; Scott & Binns, 1999) and it is often difficult to isolate which factors are most influential (Brown, Raynor, & Lee, 2011). Higher rates of breastfeeding are seen amongst mothers who are supported both practically with information and emotionally (Brown, Raynor, Benton, & Lee, 2009). Familial and peer support plays a vital role (Gill, Reifsnider, & Lucke, 2007). Accurate and consistent professional support is also a key to increasing breastfeeding duration.

In today's age of online communication and social media, one factor to be explored is the way social networking sites (SNSs) are being employed to provide peer support to breastfeeding mothers. To date, there has been very little research specifically studying peer moderated, online support groups (OSGs) that provide breastfeeding support.

One of the most interesting developments in social media is the rapid and continuous proliferation of Facebook. What began as a way to connect students now boasts 1.23 billion monthly users or about one-sixth of the world's population. Facebook had around 1 million users by the end of its first year. Today, around 9 million Australians use the site daily, including 7.3 million who log in via a mobile device. On a monthly basis, the number of Australian users increases to 12 million (Ross, 2014).

Traditionally, ABA has provided information, education and peer support for breastfeeding mothers via its Breastfeeding Helpline, email counselling, online forums (OSGs) and face-to-face at group meetings (Australian Breastfeeding Association, 2015a). Given the current environment, ABA and other breastfeeding support organisations need to consider the role of Facebook and other SNSs as they endeavour to support, educate and engage breastfeeding mothers well into the 21st century.

This paper uses thematic analysis techniques that aim to advance understanding of the experiences of mothers using closed Facebook groups attached to ABA and how these mothers find and share breastfeeding support and information.

LITERATURE REVIEW

Motherhood in the 21st century

Many argue that mothers are increasingly isolated in postmodern society (Drentea & Moren-Cross, 2005). Current demographic trends reflect the isolation of new mothers, as most women no longer stay at home while childrearing or stay home for shorter periods of time than previous generations (Arendell, 2000). As a result, communities are not filled with women and young children socialising throughout the day. This loss of geographic networks and time spent in the company of other mothers and friends signifies a loss in much of the informal support, advice and interaction surrounding motherhood that women have traditionally shared (Litt, 2000). Friends can be central in providing support and advice about breastfeeding, particularly if they have frequent and ongoing contact with the mother (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001; Chezem, Friesen, & Clark, 2001; Haneuse, Sciacca, Ratliff, Alexander, & Rivero, 2000; Hauck, 2004; Scott & Mostyn, 2003; Spear, 2006; Stamp & Casanova, 2006; Whelan & Lupton, 1998; Witters-Green, 2003; Yimyam, 1998). As a consequence of these demographic changes, various types of peer support initiatives have been trialled, as peer support has been identified as a key intervention to help improve breastfeeding rates (Thomson, Crossland, & Dykes, 2011).

Online support groups (OSGs) and parenting

The internet is one means of uniting mothers to share the collective wisdom of mothering. It allows women, who

may have no prior acquaintance, to connect and create a community of informational and emotional support. Since their inception in the 1990s, online communities, in various forms, such as chat rooms, listservs, bulletin boards, newsgroups and Web forums have served as a platform to bring together users with similar health conditions and life circumstances (Zhang, He, & Sang, 2013). Support groups in online communities provide a place to exchange advice, information and support (Miyata, 2002; Preece, 2001; Sharf, 1997; Wellman & Frank, 2001). Users interact, often daily, to help and check up on one another. These areas are promoted as a place to find support and information.

SNSs (such as Facebook) are internet-based services that operate and provide support for parents in a similar way to traditional OSGs. They differ to traditional OSGs in the way they enable users to share user-generated content (USG) (Jin, Phua, & Lee, 2015), post profile information, construct a list of friends and communicate with others using both synchronous and asynchronous messaging tools (Ellison, 2007). Being a member of an SNS community allows users to develop relationships with people who share similar interests with them, while accepting and incorporating social networking into their daily lives (Boyd & Ellison, 2010).

In the past several years, the use of SNSs has emerged as one of the prominent social trends. As of May 2015, 68% of Australian internet users have a SNS profile. It's becoming more prevalent in our daily lives as a majority (70%) are using their smartphones to access it (mainly through an app). Therefore it is not surprising that the frequency of use is increasing — 24% check in more than 5 times a day. Facebook continues to be the most popular SNS, capturing 93% of SNS users (Sensis, 2015, p. 3).

Although research surrounding SNSs and parenthood is limited, in their 2012 study Bartholomew et al. examined new parents' Facebook use from a social capital perspective. This study revealed that Facebook use may play a central role in the lives of many new parents and that Facebook use is modestly associated with some aspects of new parents' adjustment to parenthood (Bartholomew, Schoppe-Sullivan, Glassman, Kamp Dush, & Sullivan, 2012).

SNSs use for breastfeeding support

Breastfeeding is a type of health activity that can be promoted effectively through SNSs, due to the interactive and collaborative nature of these sites. By joining groups and online communities devoted to breastfeeding and sharing stories about their breastfeeding experiences on the sites, mothers are able to have common questions answered and their fears and challenges associated with this activity discussed and dispelled (Jin et al., 2015). There has been increasing interest in the manner in which new and expectant mothers seek information,

reassurance, encouragement and reinforcement of breastfeeding via the internet (Dornan & Oermann, 2006; Riordan, 2000; Thomas & Shaikh, 2007). Research has found that breastfeeding promotion programs delivered online were more successful; they significantly improved positive beliefs and intentions to breastfeed and made a greater contribution to breastfeeding knowledge than offline, healthcare provider-based interventions (O'Connor, Brown, & Lewin, 2011; Pate, 2009). Despite the increasing interest in internet-based breastfeeding promotion, education and programs, there is little research about communication centred on breastfeeding women and their UGC via SNSs (Jin et al., 2015). To address this gap, this study analyses SNSs, in the form of closed Facebook groups, as a source of breastfeeding support and dissemination of UGC regarding breastfeeding. Furthermore, although there is adequate research exploring the potential of SNSs such as Facebook as an effective tool for health communication (Gibbons et al., 2011; Kontos, Emmons, Puleo, & Viswanath, 2010; Levine et al., 2011; Park, Rodgers, & Stemmler, 2013; Wright et al., 2013), none of the research specifically analyses its use in relation to breastfeeding. This exploratory study attempted to address these gaps via a thematic analysis of interviews and focus groups of users of closed Facebook groups used specifically for breastfeeding support and information.

RESEARCH METHODS

Study design

Employing an online ethnographic research approach (netnography), this study investigates how breastfeeding mothers find support online using closed Facebook groups. Data collection comprised two steps:

1. online in-depth interviews (using Facebook 'Chat' function) with administrators of three ABA closed Facebook groups in late 2013, early 2014
2. online focus groups (using Facebook 'Events' function) of groups of six to eight active participants from each of these three groups in late 2014.

Approval for the study was provided by the Australian Breastfeeding Association and the Western Sydney University, Human Research Ethics Committee. All participants were issued with written information about the study and signed a consent form prior to the interviews and focus groups taking place. They were assured of the voluntary nature of participation, that they could withdraw at any time and that their interview and focus group data would be treated confidentially.

Participants and recruitment

A call was put out in early 2013 via ABA email and Facebook channels, requesting groups who would like to participate in the project. There were 17 groups chosen as appropriate for the project as they met the

criteria of being closed groups and active. Contact was made with the main administrator of each group who then consulted the group members and distributed participant information sheets about the project. The initial observation of these 17 Facebook groups took place in mid 2013. The online depth interviews and the online focus groups followed this initial observation stage. A total of 23 participants, recruited from three of the 17 groups, were involved in this component of the study.

Data collection

Three groups were chosen as interesting cases for study based on the volume and nature of their posts. The administrators of these three groups then participated in the online depth interviews and then six to eight participants from each of those three groups participated in online focus groups. In the depth interviews, the three group administrators were asked a series of eight open questions about their experiences administering the closed Facebook groups. Additional unique questions were also asked in response to their answers. One of the interviews was performed in a fairly straightforward manner; the researcher asked questions by typing them into the Facebook messenger function and the participant answered each question almost immediately. However, the other two participants took longer to complete their interviews due to family commitments and these interviews took around 24–48 hours to complete. Unlike the first interview that was completed in a synchronous mode, the other two interviews would be defined as asynchronous.

The 'events' function in Facebook was engaged to run the focus groups. The researcher created the event after the participants were recruited and the participants were then 'invited' in Facebook to attend the focus group 'event'. To give participants sufficient time to complete the focus group, the event was run for a 48-hour period. The semi-structured focus groups were run in a unique asynchronous manner, which meant that participants could come and go as they pleased and answer the questions at a time that was convenient to them. Using Facebook also meant that they could participate at a place that was convenient as Facebook can be accessed practically anywhere with a mobile device. This was particularly helpful, as all of the participants were mothers with young families.

A standard set of questions was prepared for the three focus groups and each question was typed onto the 'wall' of the Facebook event page before the event commenced. Once the event commenced, participants were invited to start answering the questions. Although the questions were numbered, participants were able to answer them in any order that suited them. They were able to type their answers to the focus group questions in the 'comments' section of each wall post and the

researcher was also able to make comments and ask further questions to clarify.

Focus group participants were asked a series of questions about their experiences with ABA and more specifically, the closed ABA Facebook group, and how it compared with other online parenting groups.

Data analysis

The responses to the open-ended questions of both the online interviews and online focus groups were analysed using theoretical thematic analysis (essentialist/realist method), which reports experiences, meanings and the reality of participants (Braun & Clarke, 2006). The analysis was carried out by the study's author (and an employed research assistant) according to the guidelines described by Braun and Clarke (2006). Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes the data set in (rich) detail (Braun & Clarke, 2006). A theoretical thematic analysis tends to be driven by the researcher's theoretical or analytic interest in the area and is analyst-driven. This form of thematic analysis tends to provide a less rich description of the data overall and a more detailed analysis of some aspects of the data (Braun & Clarke, 2006). The themes were then identified at the semantic level. With a semantic approach, the themes are identified within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written (Braun & Clarke, 2006). With this type of essentialist/realist approach, the researcher can theorise motivations, experience, and meaning in a straightforward way, because a simple, largely one-direction relationship is assumed between meaning and experience and language (language reflects and enables us to articulate meaning and experience) (Potter & Wetherell, 1987; Widdicombe & Wooffitt, 1995).

To increase validity and counteract possible researcher bias, an additional level of thematic analysis was undertaken using Leximancer. By using this program, analysis takes place using text analysis and synthesises the representation of text within a piece of writing, whether this be a formalised interview or focus group or more colloquial representations of social media interaction. Validity of the data was increased by 'cleaning' the document before the analysis process was undertaken — eliminating non-descriptive words and interview or focus group questions that have the potential to change the validity of the data through the analysis process (Weber, 1990). Leximancer enables an exploratory approach, letting the list of concepts emerge automatically from the text (Smith & Humphreys, 2006). However, although this program assists in the identification of patterns in text and those that dominate it, it does not do the analysis. This is the job of the analyst who is aided by tools such as Leximancer.

ETHICAL ISSUES AND REFLEXIVITY

All interviews were conducted by the author, who is a volunteer breastfeeding counsellor with ABA. All research participants were made aware of this before agreeing to take part. This was a particularly important ethical feature of the research. It enhanced the willingness of the women to participate in research on the subject, as they were more inclined to believe that the researcher's intentions were honourable and that they would not be taken advantage of in any way. In reporting the voices of breastfeeding mothers, this research adheres to a basic feminist principle (that of drawing attention to women's experiences) (Nicolson, 1997). It should be noted that the researcher's status as an 'insider' and volunteer within the ABA had the potential to influence the lens through which the data was collected and analysed. To help mitigate this bias, steps were taken to challenge the researcher's thinking about the data, such as additional meetings with PhD supervisors and the employment of a research assistant to assist with the initial thematic analysis.

Another limitation of this study was that no demographic data was collected about the participants. However, all participants were members of ABA and were able to articulate their views on breastfeeding, so this type of SNS will not be appropriate for all women. In addition, the total number of participants was 23, making it a small qualitative study. Therefore findings cannot be generalised.

RESULTS

The thematic analysis is reported by theme. Verbatim data extracts describe the experiences of the closed Facebook group administrators from the depth interview transcripts and the closed Facebook group members from the focus group transcripts. The overarching theme identified was **support**; four sub-themes describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: community, complementary, immediate and information.

Community

This theme explores how the closed Facebook groups became a community for breastfeeding mothers; a place where they could meet other like-minded women, in a safe and private environment where there was a sense of reciprocity. Participants were keen to share the sense of community and connectedness that they felt when engaging with the ABA's SNSs. These mothers had found their own community or 'tribe' of breastfeeding peer supporters online, who could provide them with the support that they needed:

'I need to touch base with a community of people who know that it's NORMAL and really really great for my children.' (P4)

'...it gives mums an avenue to vent and share her experiences and feelings, and connect with other mothers who are in a similar situation.' (P20)

The examples below demonstrate the way the closed Facebook group operates and the sense of safety that comes from being a member of this private community:

'A closed group affords more sense of privacy and comfort in answering than an open group.' (P5)

'I enjoy reading the things people post ... without having to worry about the whole of Facebook knowing what I'm reading/liking/etc. I love that it's a closed group. I'm not sure I would interact at all if it wasn't.' (P13)

Some of the more experienced mothers felt their role as an active participant of the online community allowed them a means through which they could "give back" to the group:

'A year or so later another mum posted a similar problem on the FB group and I could quickly point her in the right direction which was a great feeling — how far I had come to be able to help someone else.' (P22)

'My needs for support as a second time mother are different. I try to post stuff other people may find relevant or educational' (P9)

Complementary

Many participants felt that the closed Facebook groups they were members of complemented and 'added value' to their ABA membership and the face-to-face experience:

'It can't be everything to everyone 100% of the time — and that's where this online group complements the F2F so well I think.' (P5)

'For me, I feel like the online space complements meetings at the moment.' (P13)

However, many participants spoke about the way the closed Facebook group provided a temporary replacement for face-to-face support groups when they were unable to find the time or to physically make it to one of these groups in person. Facebook provided options and flexibility:

'I watch the FB group all the time, and join in a few times a week. I felt too incapacitated with sleep deprivation after my son was born to attend meetings.' (P4)

'I have attended meetings over the past 3.5 years but because of work commitments it hasn't always been possible. The Facebook group has always been there and it is there 24/7.' (P17)

There were also comments about the way online participation enhanced and/or encouraged the face-to-face experience:

'I see F2F as crucial, and social media a way to encourage more F2F not replace it.' (P20)

'I felt comfortable through my interaction with the online group to feel confident enough to host a meeting each year at my place once I returned to work.' (P5)

Immediate

There was a lot of discussion of how simply having the closed Facebook group there gave breastfeeding mothers access to immediate help when they needed it (24/7), from their very own breastfeeding community.

'The times that I've needed support have been urgent and someone is always right there online with their experiences to help you through.' (P4)

'I tried a few times to get through to the Breastfeeding Helpline ... but I never made it off 'hold'. I can post on this any time night or day and have a group workshop.' (P4)

The immediacy was also related to the portability and easy access to the online community via mobile devices:

'...being able to sit in my PJs with screaming 3-month-old twins and describe painful feeding symptoms via my handheld device' (P4)

Information

Information and education were important reasons participants engaged with the closed Facebook groups. There was the overwhelming belief that the information they received from ABA and its members was held in high regard — the Association and its trained volunteers are seen as 'expert':

'Also, it provides such a great resource from the variety of information posted, which I can choose to read or not' (P21)

'Information provided is interesting, posted often and is relevant.' (P9)

Some participants emphasised the sense of confidence and empowerment that resulted from their involvement in the online community and the subsequent information and education that accompanied it:

'I like to research things myself, and have had too much misinformation from health care professionals to trust any of them. I knew I would be in a vulnerable position after birth and wanted information and resources to protect myself.' (P7)

'I also really love that the information ABA provides is evidence-based ... I'm a scientist so this is really important to me.' (P2)

Information about breastfeeding and parenting was of prime importance, but information about ABA and its activities were also shared on group pages, further developing the sense of community:

'I think it is playing a major role in our group now that I post frequently. Members are starting to rely on it for information about group happenings.' (P23)

'...it has increased the sharing of breastfeeding information, increased support for breastfeeding mothers in our community, increased numbers at group meet ups & increased our membership numbers' (P20)

DISCUSSION

The aim of this study was to advance understanding of the experiences of mothers using closed Facebook groups attached to ABA and how these mothers find and share breastfeeding support and information using this forum. Thematic analysis has revealed an overarching theme of **support**, with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. The first of these sub-themes is community.

Participants reported a sense of community and connectedness as a result of the peer support found within the ABA's closed Facebook groups. The ABA's *Vision & mission* discusses the importance of the Association's aim to support, educate and advocate for a breastfeeding inclusive society (Australian Breastfeeding Association, 2015b).

These findings are supported by the research that explores women's experiences of breastfeeding peer support (Thomson et al., 2011). Women value peer supporters as mothers with similar experiences who can relate to their own situation through a shared language (Dykes, 2005; Hegney, Fallon, & O'Brien, 2008; Hoddinott, Chalmers, & Pill, 2006; Meier, Olson, Benton, Eghtedary, & Song, 2007; Nankunda, Tumwine, Nankabirwa, & Tylleskar, 2010; Rossman et al., 2011; Scott & Mostyn, 2003). Women also benefit from the increased social interaction that peer support provides (Hoddinott et al., 2006; Meier et al., 2007; Nankunda et al., 2010) and the opportunities to question (Martens, 2002; Rossman et al., 2011) and discuss personal choices in relation to infant feeding (Nankunda et al., 2010). Peer supporters assist women to solve their breastfeeding problems and women report improved mental health via increased self-esteem, confidence and wellbeing (Wade, Haining, & Day, 2009). Women also appreciate the emotional warmth,

supportive social interactions and advocacy that peer support provides (Hegney et al., 2008; Hoddinott et al., 2006; Nankunda et al., 2010; Scott & Mostyn, 2003).

Mothers involved in this study described a feeling of privacy and safety as a result of the closed nature of these groups. One of the many criticisms of online communities is their lack of privacy (Dwyer, Hiltz, & Passerini, 2007). A digital message can remain as part of a system for an undefined and undisclosed period of time (Dwyer et al., 2007). This makes the management of privacy, both for the individual and for organisations, extremely complex. Dwyer et al., (2007) found that a person's concern for privacy of their social interaction record was a factor in whether they use these SNSs. However, results showed that online relationships can still develop in sites where perceived trust is low and protection of privacy is minimal (Dwyer et al., 2007).

Participants also described a variety of ways that they felt supported online. In particular, the group was considered a 'brains trust' and illustrates the potential for members to access a wealth of both factual and experiential information, advice and support (Coulson & Shaw, 2013). Indeed, there are several theoretical reasons as to why online support groups may help individuals cope better with their own situation. For example, Roter and Hall (1997) argue, using their 'patient-communication theory', that access to information may lead to changes in task behaviour. Thus, access to information from members of an online support group may influence a new mother's behaviour in relation to how she attempts to manage her breastfeeding experience. Furthermore, according to Bandura (1977), access to information may also help participants' confidence or self-efficacy in their ability to manage their own problems or condition.

Participants said that engaging with the group and connecting to other breastfeeding mothers benefited them in a number of important ways, such as increased confidence in their parenting decisions and philosophies. This is consistent with recent online support group literature that considers the active online processes and subsequent outcomes from an empowerment perspective. Empowerment describes how individuals, organisations and communities gain control and mastery over issues that concern them. In the context of breastfeeding success, empowerment plays an important role (Pugh & Milligan, 1998).

The act of offering support to others is an important mechanism for helping sustain a healthy and productive online community. Many participants, particularly the more experienced members, discussed this aspect. Lampel and Bhalla (2007) have argued that more 'experienced' members may feel especially motivated by the need to connect to and maintain the community, as opposed to new group members who

may derive benefit by sharing their own experiences. For this cohort, the findings describe a range of altruistic motives that appear to underpin the decision to become a member of these SNSs and to support the group and its members. It was common for participants to personally value the opportunity to offer support to others, as well as receive it. Furthermore, for some, their role allowed them a means through which they could 'give back' to the group. The sense of 'giving back' or 'paying it forward' was a recurrent theme throughout. Many participants described the sense of accomplishment and satisfaction as a member of their online community that came with the ability to help other mothers as they had been helped themselves. This is a common motivation cited by volunteer breastfeeding peer-supporters (Dennis et al., 2002).

The literature widely acknowledges that the opportunity to offer as well as receive support is a critical therapeutic process that is integral to support groups (Pagano, Post, & Johnson, 2011). Known as the 'helper-therapy principle', this phenomenon describes how a support group participant gains an increased sense of self-efficacy and self-esteem through the process of helping others. Moreover, this type of altruistic behaviour has also been proven to help individuals limit the way they may be cogitating about their own problems (Shaw, Yeob Han, Hawkins, McTavish, & Gustafson, 2008). The participant descriptions in this study are consistent with a growing body of literature which supports the notion of the 'helper-therapy principle' in the context of health-related online support groups (Shaw et al., 2008; Winefield, 2006).

The second sub-theme discovered is that of the complementary nature of support that the Facebook groups provided. Much of the literature exploring SNSs looks exclusively at the SNS as a stand-alone intervention and not in conjunction with other resources and forms of breastfeeding support. Indeed, the results of this study have highlighted how the online community can complement the face-to-face support network without completely replacing it. The literature supports the benefits of in-person peer support for breastfeeding mothers (Hoddinott et al., 2006; Martens, 2002; Meier et al., 2007; Nankunda et al., 2010; Rossman et al., 2011; Thomson et al., 2011). However, exploring the ways SNS users incorporate their online interactions with face-to-face support services and the outcomes of these practices is important because it has the potential to shed light on a recurring debate within the SNS effects literature: whether participation in SNSs augments or displaces social relationships. For instance, Bessiere et al. (2008) found that using the internet to 'meet new people' was associated with higher depression scores 7 months later. They speculated that these new connections constituted weak ties and that interactions with people met online replaced time spent with strong ties. However,

participants in this study appeared to combine their SNS life with traditional face-to-face interactions — the online complemented the offline.

One of the many benefits cited by the participants was the access to their breastfeeding community — exactly when and where they needed it. This immediacy was viewed as one of the key factors contributing to the success of the online community. The literature highlights the importance of immediate and early breastfeeding support and how it improves breastfeeding outcomes (Darmstadt et al., 2005).

Participants also described the way the closed Facebook groups met their needs for information and education about breastfeeding. Several studies have reported that women expect to seek and receive information about breastfeeding in the early postpartum period (Shakespeare, Blake, & Garcia, 2004; Sheehan, Schmied, & Barclay, 2009), viewing it as a time of becoming educated (Hailes & Wellard, 2000; Nelson, 2006).

In the literature, emphasis is placed on an individual's need to obtain information about their health care, which is necessary to enable their active participation in decision-making (Coulson & Shaw, 2013). Increased knowledge and participation in making important decisions about their care can in turn enhance an individual's sense of control over their life in general (Campbell, Coulson, & Buchanan, 2013; Mo & Coulson, 2012; van Uden-Kraan et al., 2008). This is closely linked to the important concept of maternal breastfeeding 'self-efficacy', which refers to the confidence a woman has in her ability to breastfeed her baby (Dennis, 1999). Effective breastfeeding support from a woman's perspective will lead to increased confidence. Other research has demonstrated that confidence and self-efficacy are linked to an increase in breastfeeding rates (Blyth et al., 2002; Dennis & Faux, 1999; Sheehan et al., 2009).

CONCLUSIONS

The aim of this study was to explore the experiences of mothers using closed Facebook groups attached to ABA and how these mothers seek and share breastfeeding support and information. As the first Australian study of its type, it offers a 'wide-angle' view of a largely new area of investigation.

SNSs for breastfeeding support are increasingly popular. They provide information, support and an interactive space for members to share experiences and emotions. Based on the observations throughout this study, it has become evident that ABA is providing a meaningful and valuable service to its members by supporting the use of SNSs in the form of closed Facebook groups for breastfeeding support and information. The SNSs observed in this study are evidence that moderated

OSGs can be successfully developed and facilitated using SNSs like Facebook. Furthermore, participation in such groups can be empowering for both new and more experienced mothers.

Participants described an experience that reflected the core vision and mission of ABA and provided a complementary and 'value-added' service to the face-to-face, telephone and email services already provided by the Association to support breastfeeding. What could possibly be perceived as a 'threat' to or 'replacement' for these established services, appears to be a valuable tool that enhances and complements these services, while staying in touch with new technologies and the next generation of mothers.

In conclusion, the overarching theme of **support** and the four sub-themes identified and explored in this study consolidate to tell an important story about the type of support ABA is providing for breastfeeding mothers via the online community it has created with its SNSs via closed Facebook groups — a **community** that is **complementary** to its pre-existing services that have been developed to provide **immediate information** and support for breastfeeding mothers around Australia.

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REFERENCES

- Abel, S., Park, J., Tipene-Leach, D., Finau, S., & Lennan, M. (2001). Infant care practices in New Zealand: A cross-cultural qualitative study. *Social Science and Medicine*, 53(9), 1135–1148.
- Arendell, T. (2000). Conceiving and investigating motherhood: the decade's scholarship. *Journal of Marriage and the Family*, 62(4), 1192–1207.
- Australian Breastfeeding Association. (2015a). *About the Australian Breastfeeding Association*. Retrieved 8 June, 2015, from <https://www.breastfeeding.asn.au/aboutaba>
- Australian Breastfeeding Association. (2015b). *Vision & mission*. Retrieved 10 June, 2015, from <https://www.breastfeeding.asn.au/aboutaba/purpose>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Bartholomew, M. K., Schoppe-Sullivan, S. J., Glassman, M., Kamp Dush, C. M., & Sullivan, J. M. (2012). New parents' Facebook use at the transition to parenthood. *Family Relations*, 61(3), 455–469.
- Bessiere, K., Kiesler, S., Kraut, R., & Boneva, B. (2008). Effects of internet use and social resources on changes in depression. *Information, Communication and Society*, 11(1), 47–70.
- Blyth, R., Creedy, D. K., Dennis, C., Moyle, W., Pratt, J., & DeVries, S. M. (2002). Effect of maternal confidence on breastfeeding duration: An application of breastfeeding self-efficacy theory. *Birth*, 29(4), 278–284.
- Boyd, D. M., & Ellison, N. B. (2010). Social network sites: Definition, history and scholarship. *Engineering Management Review*, 38(3), 16–31.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brown, A., Raynor, P., Benton, D., & Lee, M. D. (2009). Indices of multiple deprivation predict breastfeeding duration in England and Wales. *The European Journal of Public Health*, ckp114.
- Brown, A., Raynor, P., & Lee, M. (2011). Healthcare professionals' and mothers' perceptions of factors that influence decisions to breastfeed or formula feed infants: A comparative study. *Journal of Advanced Nursing*, 67(9), 1993–2003.
- Campbell, K., Coulson, N. S., & Buchanan, H. (2013). Empowering processes within prostate cancer online support groups. *International Journal of Web-Based Communities*, 9(1), 51–66.
- Chezem, J., Friesen, C., & Clark, H. (2001). Sources of infant feeding information used by pregnant women. *Journal of Perinatal Education*, 10(3), 20–26.
- Coulson, N. S., & Shaw, R. L. (2013). Nurturing health-related online support groups: Exploring the experiences of patient moderators. *Computers in Human Behavior*, 29(4), 1695–1701.
- Darmstadt, G. L., Bhutta, Z. A., Cousens, S., Adam, T., Walker, N., & de Bernis, L. (2005). Lancet neonatal survival steering team evidence-based, cost-effective interventions: How many newborn babies can we save? *Lancet*, 365(9463), 977–988.
- Day, J. (Ed.). (2006). *Breastfeeding ... naturally* (2nd ed.). Melbourne: Australian Breastfeeding Association.
- Dennis, C., & Faux, S. (1999). Development and psychometric testing of the breastfeeding self-efficacy scale. *Research in Nursing and Health*, 22, 399–409.
- Dennis, C. L. (1999). Theoretical underpinnings of breastfeeding confidence: A self-efficacy framework. *Journal of Human Lactation*, 15, 195–201.
- Dennis, C. L., Hodnett, E., Gallop, R., & Chalmers, B. (2002). The effect of peer support on breastfeeding duration among primiparous women: A randomized controlled trial. *CMAJ*, 8(166), 21–28.
- Dornan, B. A., & Oermann, M. H. (2006). Evaluation of breastfeeding web sites for patient education. *American Journal of Maternal Child Nursing*, 31(1), 18–23.

- Drentea, P., & Moren-Cross, J. L.** (2005). Social capital and social support on the web: The case of an internet mother site. *Sociology of Health & Illness*, 27(7), 920–943.
- Dwyer, C., Hiltz, S., & Passerini, K.** (2007). *Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace*. Paper presented at the AMCIS 2007 Proceedings.
- Dykes, F.** (2005). Government funded breastfeeding peer support projects: Implications for practice. *Maternal & Child Nutrition*, 1(1), 21–31.
- Ellison, N. B.** (2007). Social network sites: Definition, history and scholarship. *Journal of Computer-Mediated Communication*, 13, 210–230.
- Gibbons, M. C., Fleisher, L., Slamon, R. E., Bass, S., Kandadai, V., & Beck, J. R.** (2011). Exploring the potential of Web 2.0 to address health disparities. *Journal of Health Communication*, 16(sup1), 77–89.
- Gill, S. L., Reifsnider, E., & Lucke, J. F.** (2007). Effects of support on the initiation and duration of breastfeeding. *Western Journal of Nursing Research*, 29(6), 708–723.
- Hailes, J. F., & Wellard, S. J.** (2000). Support for breastfeeding in the first post-partum month: Perceptions of breastfeeding women. *Breastfeeding Review*, 8(3), 5–9.
- Haneuse, S., Sciacca, J., Ratliff, M., Alexander, D., & Rivero, M. E.** (2000). Factors influencing breastfeeding rates among Arizona WIC participants. *American Journal of Health Behavior*, 24(4), 243–253.
- Hauck, Y. L.** (2004). Factors influencing mothers' decision to breastfeed in public. *Breastfeeding Review*, 12(1), 15–23.
- Hector, D., Webb, K., & Lymer, S.** (2004). *Report on breastfeeding in NSW 2004*. State of food and nutrition in NSW series. NSW Centre for Public Health Nutrition, NSW Department of Health.
- Hegney, D., Fallon, T., & O'Brien, M. L.** (2008). Against all odds: A retrospective case-controlled study of women who experienced extraordinary breastfeeding problems. *Journal of Clinical Nursing*, 17(9), 1182–1192.
- Hoddinott, P., Chalmers, M., & Pill, R.** (2006). One-to-one or group-based peer support for breastfeeding? Women's perceptions of a breastfeeding peer coaching intervention. *Birth*, 33(2), 139–146.
- Jin, S. V., Phua, J., & Lee, K. M.** (2015). Telling stories about breastfeeding through Facebook: The impact of user-generated content (UGC) on pro-breastfeeding attitudes. *Computers in Human Behavior*, 46, 6–17.
- Kontos, E. Z., Emmons, K. M., Puleo, E., & Viswanath, K.** (2010). Communication inequalities and public health implications of adult social networking site use in the United States. *Journal of Health Communication*, 15(sup3), 216–235.
- Lampel, J., & Bhalla, A.** (2007). The role of status seeking in online communities: Giving the gift of experience. *Journal of Computer-Mediated Communication*, 12(2), 434–455.
- Levine, D., Madsen, A., Wright, E., Barar, R. E., Santelli, J., & Bull, S.** (2011). Formative research on MySpace: Online methods to engage hard-to-reach populations. *Journal of Health Communication*, 16(4), 448–454.
- Litt, J. S.** (2000). *Medicalized motherhood: Perspectives from the lives of African-American and Jewish women*. New Brunswick, New Jersey: Rutgers University Press.
- Martens, P. J.** (2002). Increasing breastfeeding initiation and duration at a community level: An evaluation of Sagkeeng First Nation's community health nurse and peer counselor programs. *Journal of Advanced Nursing*, 18(3), 236–246.
- Meier, E. R., Olson, B. H., Benton, P., Eghtedary, K., & Song, W. O.** (2007). A qualitative evaluation of a breastfeeding peer counselor program. *Journal of Human Lactation*, 23(3), 262–268.
- Miyata, K.** (2002). Social support for Japanese mothers online and offline. In B. Wellman & C. Haythornthwaite (Eds.), *The internet in everyday life*. Malden, MA: Blackwell Publishers.
- Mo, P. K. H., & Coulson, N. S.** (2012). Developing a model for online support group use, empowering processes and psychosocial outcomes for individuals living with HIV/AIDS. *Psychology and Health*, 27(4), 445–459.
- Nankunda, J., Tumwine, J. K., Nankabirwa, V., & Tylleskar, T.** (2010). 'She would sit with me': Mothers' experiences of individual peer support for exclusive breastfeeding in Uganda. *International Breastfeeding Journal*, 5(16), 16.
- Nelson, A. M.** (2006). A metasynthesis of qualitative breastfeeding studies. *Journal of Midwifery and Women's Health*, 51(2), e13–e20.
- Nicolson, P.** (1997). Feminist social psychology: A re-view. *Feminism & Psychology*, 7(2), 248–254.
- O'Connor, M. E., Brown, E. W., & Lewin, L. O.** (2011). An Internet-based educational program improves breastfeeding knowledge of maternal-child healthcare providers. *Breastfeeding Medicine*, 6(6), 421–427.
- Pagano, M. E., Post, S. G., & Johnson, S. M.** (2011). Alcoholics Anonymous-related helping and the helper therapy principle. *Alcoholism Treatment Quarterly*, 29(1), 23–34.
- Park, H., Rodgers, S., & Stemmler, J.** (2013). Analyzing health organizations' use of Twitter for promoting health literacy. *Journal of Health Communication*, 18(4), 410–425.
- Pate, B.** (2009). A systematic review of the effectiveness of breastfeeding intervention delivery methods. *Journal of Obstetric, Gynaecologic and Neonatal Nursing*, 38(6), 642–653.
- Potter, J., & Wetherell, M.** (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London: Sage.
- Preece, J.** (2001). Online communities: usability, sociability, theory and methods. In R. Earnshaw, R. Guedj, A. V. Dam & T. Vince (Eds.), *Computing, online communities and virtual environments*. Amsterdam: Springer Verlag.
- Pugh, L. C., & Milligan, R. A.** (1998). Nursing intervention to increase the duration of breastfeeding. *Applied Nursing Research*, 11(4), 190–194.
- Riordan, J.** (2000). Teaching breastfeeding on the web. *Journal of Human Lactation*, 16(3), 231–234.
- Ross, M.** (2014). Facebook turns 10: The world's largest social network in numbers. Retrieved 6 June, 2015, from <http://www.abc.net.au/news/2014-02-04/facebook-turns-10-the-social-network-in-numbers/5237128>
- Rossmann, B., Engstrom, J. L., Meier, P. P., Vonderheid, S. C., Norr, K. F., & Hill, P. D.** (2011). 'They've walked in my shoes': Mothers of very low birth weight infants and their experiences

with breastfeeding peer counselors in the neonatal intensive care unit. *Journal of Human Lactation*, 27, 14–24.

Roter, D., & Hall, J. (1997). Patient-provider communication theory. In K. Glanz, F. Lewis & B. Rimer (Eds.), *Health behavior and health education: Theory, research and practice* (2nd ed., pp. 206–222). San Francisco, CA: Jossey Bass Publishers.

Scott, J. A., & Binns, C. W. (1999). Factors associated with the initiation and duration of breastfeeding: A review of the literature. *Breastfeeding Review*, 7(1), 5–16.

Scott, J. A., & Mostyn, T. (2003). Women's experiences of breastfeeding in a bottle-feeding culture. *Journal of Human Lactation*, 19(3), 270–277.

Sensis. (2015). *Sensis social media report May 2015: How Australian people and businesses are using social media*. Retrieved from Sensis website: https://www.sensis.com.au/content/dam/sas/PDFdirectory/Sensis_Social_Media_Report_2015.pdf

Shakespeare, J., Blake, F., & Garcia, J. (2004). Breast-feeding difficulties experienced by women taking part in a qualitative interview study of postnatal depression. *Midwifery*, 20(3), 251–260.

Sharf, B. F. (1997). Communicating breast cancer on-line: Support and empowerment on the internet. *Women and Health*, 26(1), 65–84.

Shaw, B. R., Yeob Han, J., Hawkins, R. P., McTavish, F. M., & Gustafson, D. H. (2008). Communicating about self and others within an online support group for women with breast cancer and subsequent outcomes. *Journal of Health Psychology*, 13(7), 930–939.

Sheehan, A., Schmied, V., & Barclay, L. (2009). Women's experiences of infant feeding support in the first 6 weeks post-birth. *Maternal & Child Nutrition*, 5(2), 138–150.

Sheehan, A., Schmied, V., & Barclay, L. (2013). Women's perceptions and experiences of breastfeeding support: A metasynthesis. *Qualitative Health Research*, 23(7), 989–998.

Smith, A. E., & Humphreys, M. S. (2006). Evaluation of unsupervised semantic mapping of natural language with Leximancer concept mapping. *Behavior Research Methods*, 38(2), 262–279.

Spear, H. J. (2006). Breastfeeding behaviors and experiences of adolescent mothers. *MCN: The American Journal of Maternal/Child Health Nursing*, 31(2), 106–113.

Stamp, G. E., & Casanova, H. T. (2006). A breastfeeding study in a rural population in South Australia. *Rural and Remote Health*, 6(496), 1–9.

Stuebe, A. M. (2009). The risks of not breastfeeding for mothers and infants. *Reviews in Obstetrics and Gynaecology*, 2(4), 222–231.

Thomas, J. R., & Shaikh, U. (2007). Electronic communication with patients for breastfeeding support. *Journal of Human Lactation*, 23, 275–279.

Thomson, G., Crossland, N., & Dykes, F. (2011). Giving me hope: Women's reflections on a breastfeeding peer support service. *Maternal & Child Nutrition*, 8(3), 340–353.

van Uden-Kraan, C., Drossaert, C. H. C., Taal, E., Shaw, B. R., Seydel, E. R., & van de Laar, M. A. F. J. (2008). Empowering processes and outcomes in online support groups for patients

with breast cancer, arthritis or fibromyalgia. *Qualitative Health Research*, 18(3), 405–417.

Wade, D., Haining, S., & Day, A. (2009). Breastfeeding peer support: Are there additional benefits? *Community Practitioner*, 82(12), 30–33.

Weber, R. P. (1990). *Basic content analysis*. Newbury Park, CA: Sage.

Wellman, B., & Frank, K. (2001). Network capital in a multi-level world: Getting support from personal communities. In N. Lin, R. Burt & K. Cook (Eds.), *Social capital: Theory and research*. Hawyorthorne, NY: Aldine de Gruyter.

Whelan, A., & Lupton, P. (1998). Promoting successful breastfeeding among women with a low income. *Midwifery*, 14(2), 94–104.

Widdicombe, S., & Wooffitt, R. (1995). *The language of youth subcultures: Social identity in action*. London: Harvester Wheatsheaf.

Winefield, H. R. (2006). Support provision and emotional work in an Internet support group for cancer patients. *Patient Education and Counselling*, 62(2), 193–197.

Witters-Green, R. (2003). Increasing breastfeeding rates in working mothers. *Families, Systems, and Health*, 21(4), 415.

Wright, K. B., Rosenberg, J., Egbert, N., Ploeger, N. A., Bernard, D. R., & King, S. (2013). Communication competence, social support, and depression among college students: A model of Facebook and face-to-face support network influence. *Journal of Health Communication*, 18(1), 41–57.

Yimyam, S. (1998). Breastfeeding, work and women's health among Thai women in Chiang Mai. *Breastfeeding Review*, 6(1), 17–22.

Zhang, Y., He, D., & Sang, Y. (2013). Facebook as a platform for health information and communication: A case study of a diabetes group. *Journal of Medical Systems*, 37(3), 1–12.

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6.2 Conclusion

This chapter presents the findings from three online depth interviews and three online focus groups that explore the experiences of mothers seeking breastfeeding support online. The overarching theme identified was support, with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: community, complementary, immediate and information. It was found that SNSs provide support from the trusted community. It is immediate, it complements existing support or services that the ABA provides and also provides practical and valuable information for its users.

CHAPTER SEVEN

7 Exploring Breastfeeding Support on Social Media

7.1 Publication relevance to thesis

Chapter seven presents the paper titled: Bridges, N., Howell, G. V. J., & Schmied, V. (2018). Exploring breastfeeding support on social media. *International Breastfeeding Journal*, 13(22), 1–9.

This paper explores the specific breastfeeding topics that women are investigating via SNSs such as Facebook, and how breastfeeding peer supporters respond to queries about breastfeeding concerns on a SNS.

The data was collected on a total of 778 wall posts with a total of 2,998 comments posted into the initial wall posts. Analysis revealed that 165 (21 percent) of these wall posts were queries and 72 (44 percent) of the queries were specific breastfeeding questions. Twelve breastfeeding topic areas were identified and the top three topic areas were further analysed for not only their content, but the nature of informational and emotional support provided to the community members.

RESEARCH

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Exploring breastfeeding support on social media

Nicole Bridges^{*} , Gwyneth Howell and Virginia Schmied

Abstract

Background: Lack of breastfeeding support is often cited by mothers as one of the key reasons for premature weaning. The experiences and perceptions of breastfeeding mothers in a range of contexts and their support needs have been studied, but there has been little exploration of the specific breastfeeding topics that women are investigating via social networking sites (SNSs) such as Facebook, and how breastfeeding peer supporters respond to queries about breastfeeding concerns on a SNS.

Methods: This online ethnography took place in the Australian Breastfeeding Association's (ABA) closed Facebook groups. These groups have been created for breastfeeding mothers to seek and provide support to their peers. All wall posts, comments and images for 15 of these groups were captured over a four-week period between 21 July and 17 August 2013.

Results: The data were collected on a total of 778 wall posts with a total of 2,998 comments posted into the initial wall posts. Analysis revealed that 165 (21%) of these wall posts were queries and 72 (44%) of the queries were specific breastfeeding questions. Twelve breastfeeding topic areas were identified, and the top three topic areas were further analysed for not only their content but the nature of informational and emotional support provided to the community members.

Conclusions: The closed Facebook groups hosted by the ABA provided both informational and emotional support that appeared to be facilitated by an authentic presence from both trained peer breastfeeding counsellors and other mothers. The group administrators played a vital role in both responding to the queries and overseeing the discussions to ensure they adhered to the ABA's Code of Ethics.

Keywords: Breastfeeding, Facebook, Online, Social networking sites, Peer support, Ethnography, Authentic presence, Facilitative style, Social network

Background

Breastfeeding is an important public health intervention that impacts significantly on both mothers and their babies [1]. Its importance is reinforced by the World Health Organization's (WHO) recommendation of exclusive breastfeeding for around 6 m and for breastfeeding to continue for 2 years and beyond [2].

Health professionals have an important role to play in educating and supporting mothers to not only initiate but also maintain breastfeeding for the recommended duration. Consequently, WHO and the United Nations International Children's Emergency Fund (UNICEF) have implemented the Baby Friendly Hospital Initiative

(BFHI) now known in Australia as the Baby Friendly Health Initiative [3]. A recent review of the BFHI found support interventions can increase the duration and exclusivity of breastfeeding, especially face-to-face visits. Similarly, it was identified that education and support delivered by both health professionals or peers can increase breastfeeding initiation rates [4].

Families and friends also play their part [5–11]. In fact, some women indicate a preference for peer support provided by a trained volunteer [12–14]. Lack of breastfeeding support is often cited by mothers as one of the key reasons for premature weaning [13, 15–21] and the need for effective and sensitive professional and social support is key to breastfeeding success [10, 22].

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The experiences and perceptions of breastfeeding mothers in a range of contexts have been studied by qualitative researchers [7, 14, 23–25]. However, this paper aims to investigate the specific breastfeeding topics that women are investigating via social networking sites (SNSs) such as Facebook, and how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS.

Peer support is defined as the “provision of emotional, appraisal, and informational assistance by a created social network member who possesses experiential knowledge of a specific behaviour or stressor or similar characteristics as the target population” [26]. The term ‘created social network’ means the peer supporters are not known to a mother through her informal social network, but rather known to her for the specific purpose of providing support. In the case of this study, peer supporters are known to her because they are members of the same SNS. The online environment of a mother’s group creates a female-dominated community of support. Women use their own experiences of mothering to help themselves and one another [27]. They provide informational and emotional support such as exchanging information, and providing encouragement, empathy and examples of similar experiences [28, 29]. Although there is adequate research exploring the potential of SNSs such as Facebook as an effective tool for health communication [30–34], none of the research specifically analyses its use in relation to breastfeeding.

The study results presented in this paper form part of a larger study investigating how breastfeeding mothers experience online support using closed Facebook groups hosted by the Australian Breastfeeding Association (ABA), a not-for-profit organisation that provides information and support via trained, volunteer peer supporters.

Methods

In addition to being hosted by the ABA, the SNSs investigated in this study are administered and moderated by trained peer breastfeeding counsellors. Ethnography is a qualitative research method whereby researchers immerse themselves in a community of people to observe their activities, to listen, and to ask relevant questions [35]. The origins of ethnography can be found in anthropology – the methodology used for observing and writing about specific cultural groups [36].

With the proliferation of SNSs including Facebook, communities now refer not only to people in a shared physical location but also to groups of people who congregate online [37]. Consequently, ethnographers are finding that in order to understand how communities work, they must follow these communities onto the Internet and other technologically-mediated avenues of

communications. In response to this migration to the digital space, ethnographers have invented some innovative ways to describe these online ethnographies over time. One such term is ‘netnography’, which originated in the area of marketing and consumer research, and incorporates a range of research fields, such as anthropology, sociology, and cultural studies [38]. Netnography is the name given to a “specific set of related data collection, analysis, ethical and representational research practices, where a significant amount of the data collected and participant-observational research conducted originates in and manifests through the data shared freely on the Internet, including mobile applications” [38].

The online ethnography took place in ABA’s closed Facebook groups. These groups have been created for breastfeeding mothers to seek and provide support to their peers. Individual users can ask for support in one wall post and provide support by commenting on another. Therefore, individual users may be both support seekers and providers.

Recruitment of participants

An online invitation was distributed in early 2013 via ABA email and Facebook inviting groups to nominate for participation in the project. The final 15 groups selected met the criteria as ABA closed groups that were the most active, posting more than once per week. Contact was made with the main administrator of each group who then consulted the group members and distributed participant information sheets about the project. Consent was provided by each group administrator to access the Facebook group and information was posted when this would be occurring so if members did not want to post during that time, they could choose not to do so. At the time of data collection, there were 1846 group members among the 15 groups.

Data collection

The data collection for this netnography was undertaken by Author 1 following the activities of 15 individual ABA sanctioned closed Facebook groups. All wall posts and comments as well as images for these groups were captured over a four-week period between 21 July and 17 August 2013 and stored electronically in a password-protected file. This data is still relevant, as the ABA continues to utilise Facebook groups to engage with its members and the popularity of their closed Facebook groups has increased substantially since data collection occurred. Also, the ABA’s method of mother-to-mother informational and emotional support remains unchanged.

Data analysis

The coding scheme was developed drawing on the published study of health networking sites [39, 40]. All wall posts and comments were initially coded according to

whether the purpose of the poster was to ask for ('query') or share ('share') information or emotion. The queries were further grouped into topic areas based on the focus of the support and information the members were seeking and providing. These topic areas are breastfeeding, parenting and the ABA (these posts were about the ABA and its activities). Furthermore, those that were identified as being a query about breastfeeding were then categorised into breastfeeding topic areas.

Ethics approval

Approval for the study was provided by the ABA and Western Sydney University, Human Research Ethics Committee (approval number H9010). Permission was sought from the administrator of each of the Facebook groups to observe over the four-week period and information was posted and pinned at the top of each of the Facebook groups informing members of the study. Due to the large size of each of the Facebook groups, it was too difficult to orchestrate signed consent forms from each member. If members did not want their posts captured they had the option to not post during that four-week period.

Reflexivity

Author 1 is currently an active member of the ABA and has held office bearer positions. Authors 2 and 3 have also been members of ABA in the past. This may have influenced the way in which data has been analysed and presented. The research teams were conscious of their position throughout data collection and analysis, and author one prepared reflexive field notes during data analysis which were discussed with the team.

Results

The data was collected on a total of 778 wall posts with a total of 2998 comments posted into the initial wall posts. This dataset included all wall posts and comments across the 15 groups over the four-week period. Analysis revealed that 165 (21%) of these wall posts were queries and 72 (44%) of the queries were specific breastfeeding questions. Twelve breastfeeding topic areas were identified, and a description of each can be found in Table 1.

Most asked about breastfeeding topics

Of the 72 queries that were specific breastfeeding questions, 55 (76%) were categorised into these three topic areas:

- 1) Breastfeeding management
- 2) Breastfeeding and health
- 3) Breastfeeding and work

These three topic areas are further explained in Table 1 and are discussed below, along with quotations that illustrate participants' queries and how the online community responded to these queries. The remaining 24% of queries were related to parenting and the ABA and were not analysed for this article.

Breastfeeding management

The majority (42%) of breastfeeding queries were coded as 'breastfeeding management'. This topic included areas of discussion such as the physical management of breastfeeding, including timing and frequency of feeds, feeding to sleep, breastfeeding with large breasts, breast

Table 1 Coding Scheme for Topics of Breastfeeding-related Queries

Code	Category	Description
1	Breastfeeding and exercise	Issues associated with exercising while breastfeeding, including breast refusal
2	Breastfeeding and health	Protective benefits of breastfeeding, breastfeeding during baby's illness, mother's diet while breastfeeding, illness while breastfeeding, food intolerance, dieting, menstruation
3	Breastfeeding and medication/drugs/alcohol	Safety of mother taking medication, drugs and alcohol while breastfeeding
4	Breastfeeding and pregnancy	Issues associated with breastfeeding while pregnant
5	Breastfeeding and tongue tie	Tongue tie issues, including poor attachment, low weight gains, reflux, unsettled babies
6	Breastfeeding and work	Breastpump hire, expressing and storing breastmilk, caregivers and the breastfed baby, leaving breastfed babies for prolonged periods
7	Breastfeeding high needs babies	Babies with chronic breastfeeding and behavioural issues such as frequent feeding, poor sleeping, fussiness, intolerance issues, general unhappiness
8	Breastfeeding management	Physical management of breastfeeding, including timing and frequency of feeds, feeding to sleep, breast refusal (inc. distracted breastfeeders, biting and pinching while breastfeeding), breastfeeding with large breasts, positioning and attachment, mastitis, blocked ducts, cysts, white spot, thrush, sore and damaged nipples
9	Breastmilk sharing	Wetnursing, donation of human milk
10	Low supply	Issues associated with low breastmilk supply, including complementary feeding
11	Weaning	Weaning babies from the breast, including reluctant weaners and older children

refusal, positioning and attachment, mastitis, blocked ducts, cysts, white spot, thrush, and sore and damaged nipples.

Many women were searching for reassurance about the way they were managing their breastfeeding relationship, including breastfeeding to sleep which appeared to be an emotive topic for parents. This mother was seeking information, in addition to emotional support about continuing to breastfeed her baby to sleep.

Boobing to sleep. Quick! Help reassure me it's normal! Had a moment of craziness this morning and tried to not do it. I continually doubt myself! (P186).

This query yielded 19 responses from other mothers that provided both informational and emotional support. Overwhelmingly, these responses provided encouragement and were 'normalising' practices related to breastfeeding by reassuring the mother that breastfeeding to sleep was a normal parenting practice and would not lead to negative outcomes for mother and child.

It's normal normal normal. I'm typing this as I feed ***** to sleep! It's easier, it's comforting, its safe, bonding, beautiful and OKAY!! (P36).

Breast refusal was another frequent topic of discussion within the closed Facebook groups. It is a topic that can be very distressing for breastfeeding mothers, as there is no 'one size fits all' approach to solving it, and often the behavior can suddenly disappear without any solution to the puzzle of why it was occurring in the first place.

Below is a query about breast refusal from a mother who is concerned about the issue and reaching out for information, and emotional support in the form of reassurance.

Hi everyone. I'm looking for some advice. My son is 16 months and has been refusing to feed on my left breast for a week or so now. That was all fine until last night when he started fussing when trying to feed off my right breast too. He would latch on for a minute or two and then either bite my nipple or unlatch and cry. I'm very worried my milk supply may be dwindling... He just got him bottom molars on each side so it may be teething related also. Does anyone have any advice for me? Is he weaning? Or am I just not making enough? (P441).

This post generated plenty of comments and a robust discussion about breast refusal and the possible causes. Like this detailed advice below from a peer breastfeeding counsellor in training, most of the responses contained not only realistic and detailed information but some emotional support, including empathy, reassurance, affirmation and encouragement.

Lots of good suggestions there already, ****. Breast refusal can be a really stressful time for you and for bub, but in most cases it is - thankfully - temporary. Lots of no-pressure opportunities to feed can be good - so just hanging out and having lots of skin-to-skin cuddles like

***** mentioned; trying the rocking and singing technique already suggested.); maybe having a nice relaxing bath together; those sorts of things can help bub to feel a bit more like having a feed. Some mums find that offering a feed when their baby is asleep or very drowsy can also mean less chance of refusal, too. If it's something going on with bub - i.e. teething, or a cold/sore throat, or even an ear infection - then figuring out what it might be and trying to alleviate any discomfort (e.g. giving bub something cold to chew on before a feed; seeing a GP if you suspect something else might be going on, and starting treatment if needed) often helps get breastfeeding back on track, as well. And if it is your menstrual cycle or ovulation affecting the milk in some way, rest assured that's temporary as well! :) (P465).

The information and support provided by the peer breastfeeding counsellor in training and others as a response to this mother's post appeared to achieve the goal of providing reassurance and comfort to the mother, as indicated by her final reply.

Such a huge sigh of relief on my end!! I've heard that feeding off one breast can still work. Thanks for clarifying for me! Thanks ladies you are awesome:) (P441).

Breastfeeding and health

Another popular topic was 'breastfeeding and health' (19% of breastfeeding queries). This included breastfeeding queries about the protective benefits of breastfeeding, breastfeeding during baby's illness, mother's diet while breastfeeding, illness while breastfeeding, food intolerance, dieting, and menstruation.

The following is a condensed example of a considerably long query about breastfeeding and health from a mother who indicated she was experiencing a high level of guilt about her breastfed baby's health. This is an example of when strong emotions are embedded in a post, and a participant seeking emotional support is reaching out for reassurance. Her introduction provides a brief informational description of how the illness began, including the severity of the illness.

My husband brought a nasty cold virus to our house last week and **** started having the symptoms of cold about Wednesday and we went to GP (on Friday) when her mucus turned greenish as we thought it was an infection... (P383).

The mother goes on to describe her emotional distress about her baby's illness, and the guilt and anxiety she is feeling about having to give her baby antibiotics after fighting so hard to breastfeed.

It's *****'s first cold/bacteria/antibiotic in her 9.5 months and it breaks my heart so bad that she has it that early in her life. I know antibiotics kill some good bacteria as well as bad ones, I fought a lot in the last 9.5 months with low supply and how to increase it..... (P383).

She appears worried that the antibiotics are going to compromise the baby's immune system, and is feeling anger toward her partner for bringing the illness home. She feels like she has failed her baby and needs reassurance that her baby will be OK.

What breaks my heart is apart from all the hundreds of benefits she gets from my milk, my biggest aim was my baby to build a great immune system and I feel like it's already wrecked :(I played the blame game for 2 days and didn't talk to my husband because he was sick and passed it to **** and now I feel like crying because she is on antibiotics and I failed on building a good immune system for my baby. (P383).

The online community displayed an overwhelming response to this mother's cry for help. There were many responses, and the majority of them were focused on providing emotional support, empathy, affirmation, and reassurance – far more than simply providing answers to questions. Interestingly, the following response is from a trained peer breastfeeding counsellor. Her response demonstrates positive appraisal and a justification for the mother having to administer antibiotics to her baby. She also reframes the situation by highlighting how much of an advantage she has already provided for her baby by breastfeeding thus far, and goes on to provide a personal example. Her response also contains informational support in the form of realistic, accurate and sufficiently detailed information that encourages breastfeeding.

I'd say a big pat on the back for building a lovely immune system in your daughter thus far – if she had been bottle fed, she probably would have had more infections prior to this one. This other thing is that breastfed babies recover so quickly and are usually a lot less sick than their formula-fed counterparts. My first child had antibiotics twice in her first year (once intravenously) my second child didn't have any for 5.5 years and my third hasn't had any yet and he's 3. At age nearly 12 my daughter's immune system is as good as her brothers' and is rarely away from school. I credit it to the 1.5 years of breastfeeding her! (P96).

The following is an example of another response to this mother, but from a member who is not a trained peer breastfeeding counsellor.

I have a couple if things to add to this too. Firstly you are being super hard on yourself. Remember that we are all human and are susceptible to getting sick that's part of being alive. It's winter and cold. A Doctor friend told me that statistically kids will have about 15 sicknesses in the first 5 years. Imagine a world without antibiotics. Lastly your daughter is so so so lucky to have a mum who takes her responsibility as a mother so thoughtfully and seriously. I hope all your peeps recover quick sticks. (P19).

It is evident that the online community was meeting the emotional needs of this mother as she provided feedback in the form of several responses to the Facebook comments.

You're so lovely ***** that you actually made me smile:) thank you:) (P383).

The following is a post from a mother who has been sick herself. On the surface, she seems to be only seeking informational support about the impact of the illness on the quality and quantity of the breastmilk she is producing for her four-month old baby. She is clearly quite concerned as she asks if she should return to hospital.

I've been really sick for the past week - I think I caught gastro from one of the step kids... Anyway, I haven't been able to keep down any solids until today but it doesn't seem to have impacted my milk supply as my son (4mo) has still been feeding really well - practically 24/7. How frequently should I be eating and what are some good meals I should start having to build up the goodness in the breastmilk again because all I've had these past 5–6 days is water. Should I go back to hospital days and be eating the three course meals for breaky, lunch and dinner? (P522).

Although this seems to be an informational query, the following comment from a trained peer breastfeeding counsellor indicates that the respondent has sensed the mother may also need some emotional support, because she has been quite ill and is possibly concerned about the impact of her illness on her baby. This response starts by reassuring the mother about the quality and quantity of her breastmilk, then provides some practical and detailed suggestions for looking after herself and points the mother to specific resources to meet her informational needs. She finishes with an offer of practical help if the mother needs it and a good wish in the form of kisses.

*****, your breastmilk still has all the goodness in it - if your supply hasn't been impacted at all then that's great. Just try to look after yourself, slowly getting some good meals into you. There's an article on the ABA website about breastfeeding when you've got gastro and I cannot for the life of me find it at the moment. Gah! Can anyone else see it???? Make sure you keep hydrated too. It's often the case that when we are unwell, our supply and breastmilk is absolutely fine but unfortunately our bodies take the hit - I guess it's a way of protecting our babies from whatever it is we have got!!:) Hugs lady, let us know if we can do anything for you xx (P330).

Breastfeeding and work

Many women in these online communities were seeking advice and support about 'breastfeeding and work'. This included discussion about breast pump hire, expressing and storing breastmilk, caregivers and the breastfed

baby, and leaving breastfed babies for prolonged periods of time. The majority of queries under this topic were informational, but some mothers still demonstrated a need for emotional support. The following post demonstrates a mother seeking practical information about what food and drink to prepare for her breastfed baby when she returns to work, while at the same time seeking emotional support as she has admitted to feeling nervous about leaving her baby, who appears to be unexpectedly reluctant about drinking expressed breastmilk.

Very nervous about working next week. It is for a few hrs in ** *****. I can either leave **** with hubby and EBM and hope for the best, leave her with hubby and formula and hope for the best, leave them with both + solids and hope something works, or have the whole family come to ** ***** with me so I can feed her before and after work. I really didn't imagine when I accepted this work months ago that she might not take EBM. I thought by 6.5 months she'd be set. Any ideas? (P170).

This query received only one response from a group member who was also a trained peer breastfeeding counsellor. She provides the mother with reassurance and reminds her that her baby is being cared for in a safe and loving environment. She follows up the emotional support with some realistic and sufficiently detailed information about how to ensure the baby is well hydrated and other ways for her husband to distract the baby in her absence. It was such a thorough and comprehensive answer that it seemed no other members of the online community felt the need to add to the response.

She'll be fine, enjoy your day! Hubby will cope with whatever decision you make and if she doesn't take much, nothing bad will happen, she is safe and cared for! Maybe verse him on only warming up very small amounts and he could always cup feed it so she stays hydrated. And if she's liking solids, that could always be a backup to distract her. (P96).

Often the queries were 'last minute' as many mothers returned to work unexpectedly or left their breastfeeding preparation to the last minute. Queries like this one demonstrate that the mother is in need of some emotional support as she has been caught off-guard and is also seeking reassurance that her baby will be alright.

I'm going back to work tomorrow after 3 years. Ten month old bub will have to go cold turkey. Hubby will be home with her. Have cooked up her pumpkin and expressed a bit. Only found out I was going to work earlier today so didn't get a chance express more. She will be ok right? (P120).

There were many messages of support in reaction to this mother's post. The majority of them simply wished

her well and gently reassured her that her baby would be OK.

Good luck *****! I'm sure she'll be fine. (P283).

This mother appreciated the support as she provided responses to the comments and provided an update after the event.

She gulped all the milk early morning. I had only 120 mLs ready for her. I am expressing now for her feed tomorrow. She was very pleased to see me this arvo [afternoon].

It's only a casual job till Friday until something else pops up so that will give me more to get my head around it and prepare more.

did miss kids heaps though. (P120).

These findings demonstrate the informational and emotional support provided by these online communities.

Discussion

The first area of study this paper aimed to explore was the specific breastfeeding topics that women are investigating via SNSs such as Facebook. Although there are studies that have explored the most common breastfeeding problems that lead to early cessation of breastfeeding [41–47], there are no studies that specifically explore the most common breastfeeding topics discussed on SNSs.

This study observed 15 closed Facebook groups created for breastfeeding support over a four-week period, explored the 72 posts that were specific breastfeeding queries, and found that 55 (76%) were categorised into the three topics areas of breastfeeding management, breastfeeding and health, and breastfeeding and work. Research conducted in the US into the reasons women stop breastfeeding during the first year, also reports these three topic areas as important in the mothers' decision to stop breastfeeding [46]. Similarly, a research study conducted in Hong Kong also found that reasons related to breastfeeding management, maternal health and returning to work were cited by mothers as the primary reason for weaning [47]. Mothers in Belgium also reported on the major reasons for early weaning, and breastfeeding management, mother's and baby's health, and returning to work were also included in the top nine reasons they stopped breastfeeding [44]. A study carried out in Western Australia discovered that breastfeeding management issues and infant and maternal health issues were common reasons for terminating breastfeeding in the early weeks postpartum (2–10 weeks of age) and returning to work was a common reason when the infant was a little older (19–21 weeks of age) [41]. It is clear that these themes are common in high-income countries and are important areas in which breastfeeding mothers need support to meet their breastfeeding goals.

The second area of study this paper aimed to explore was how breastfeeding peer supporters respond with

informational and emotional support to queries about breastfeeding concerns on a SNS, and how these relationships are developed online. Although both trained peer breastfeeding counsellors and other mothers were members of these online communities, it was usually evident which responses were from the trained peer breastfeeding counsellors. Many of the examples presented in the findings were responses from trained peer breastfeeding counsellors and the examples demonstrate why breastfeeding peer support is a key intervention to assist in the improvement of breastfeeding rates [10, 24].

In a thematic analysis of the same cohort, members of three of the closed Facebook groups participated in online depth interviews and online semi-structured focus groups [40]. The overarching theme identified was support, with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes were: community, complimentary, immediate and information. It was found that the SNSs provided support from the trusted community. It was immediate, it complimented existing support or services that the ABA provide, and also provided practical and valuable information for its users [40].

In a metasynthesis of women's perceptions and experiences of breastfeeding support, Schmied et al. [48] identified key ideas and concepts that were similar across 31 studies related to breastfeeding support. They identified four major types of breastfeeding support. The most effective was deemed to be 'authentic presence' which describes care that women felt was supportive and indicates a trusting relationship and connection or rapport between the woman and peer supporter. There are seven themes within the authentic presence category: being there for me, empathetic approach, taking time touching base, providing affirmation, being responsive, sharing the experience, and having a relationship. In each of the examples of responses presented in the findings, there is evidence of these seven themes in the data.

The second positive type of breastfeeding support identified by Schmied et al. was labelled the 'facilitative style' and was strongly associated with an authentic presence. It is defined as 'an approach to health promotion, or helping, that enables people to draw on a range of information and experience and learn for themselves' [48]. The facilitative style can be described as a learner-centred approach and comprises five themes: realistic information, accurate and sufficiently detailed information, encouragement for breastfeeding, encouraging dialogue, offering practical help and being proactive. Many of the examples presented in the findings demonstrate this facilitative approach, with the presentation of practical

suggestions and informational support alongside the emotional support that is characteristic of the authentic presence approach. This facilitative style was most often seen demonstrated by trained ABA peer breastfeeding counsellors.

Limitations

This study was conducted on SNSs where the majority of members are committed to and invested in breastfeeding. As the sites were hosted and moderated by trained volunteers of the ABA who are required to abide by a Code of Ethics, negative interactions rarely occurred, compared to other SNSs aimed at mothering and breastfeeding. Also, although it was found that the women in the study found the online environment supportive, the research does not provide any information about whether being a member and engaging in the SNS extended or supported members to continue breastfeeding.

Future research

Future research could include a comparison of face-to-face breastfeeding support with online support via SNSs and an analysis of the aspects of support we may be losing in the process of moving support online. This could include a detailed exploration of what that means to peer support relationships and the elements included in face-to-face support that may not be possible when supporting women via SNSs.

Conclusions

This study analysed 15 closed Facebook groups established by the ABA to explore the specific breastfeeding topics that women are investigating via SNSs such as Facebook. Of the 72 queries that were specific breastfeeding questions, 55 (76%) were categorised into these three topic areas of breastfeeding management, breastfeeding and health, and breastfeeding and work which are all themes universally recognised as some of the most common reasons for the cessation of breastfeeding, and important areas for future study.

Secondly, the study explored how breastfeeding peer supporters respond with emotional support to queries about breastfeeding concerns on a SNS. The research found that these types of SNSs facilitated by trained peer breastfeeding counsellors are more likely to facilitate an authentic presence and facilitative style, both recognised as essential components of breastfeeding support.

Abbreviations

ABA: Australian Breastfeeding Association; BFHI: Baby Friendly Health Initiative; NHMRC: National Health and Medical Research Council; SNS: Social networking site; UNICEF: United Nations International Children's Emergency Fund; WHO: World Health Organization

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Authors' contributions

NB (author 1) carried out data analysis as part of her PhD research and drafted the manuscript. GH (author 2) critically revised the manuscript. VS (author 3) made substantial contributions to the interpretation of results and discussions and critically revised the manuscript. GH and VS also contributed to the design of the study. All authors read and approved the final manuscript.

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Ethics approval and consent to participate

Approval for the study was provided by the Australian Breastfeeding Association and Western Sydney University, Human Research Ethics Committee (approval number H9010). All participants were issued with written information about the study and signed a consent form before the interviews and focus groups taking place. They were assured of the voluntary nature of participation, that they could withdraw at any time, and that their interview and focus group data would be treated confidentially.

Competing interests

The authors declare that they have no competing interests.

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References

- Burns E, Schmied V. "The right help at the right time": positive constructions of peer and professional support for breastfeeding. *Women Birth*. 2017; 30(5):389–97.
- World Health Organization, UNICEF. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003.
- Schmied V, Gribble K, Sheehan A, Taylor C, Dykes F. Ten steps or climbing a mountain: a study of Australian health professionals' perceptions of implementing the baby friendly health initiative to protect, promote and support breastfeeding. *Health Serv Res*. 2011;11:208.
- Gavine A, McFadden A, MacGillivray S, Renfrew MJ. Evidence reviews for the ten steps to successful breastfeeding initiative. *J Health Visiting*. 2017;5(8):378–80.
- Britten J, Hoddinott P, McInnes R. Breastfeeding peer support: health service programmes in Scotland. *Br J Midwifery*. 2006;14(1):12–4.
- Burns E, Schmied V. "The right help at the right time": positive constructions of peer and professional support for breastfeeding. *Women and Birth*. 2017;30(5):389–97.
- Dykes F. Government funded breastfeeding peer support projects: implications for practice. *Matern Child Nutr*. 2005;1(1):21–31.
- Kruske S, Schmied V, Cook M. The 'earlybird' gets the breastmilk: findings from an evaluation of combined professional and peer support groups to improve breastfeeding duration in the first eight weeks after birth. *Matern Child Nutr*. 2007;3(2):108–19.
- Nankunda J, Tumwine JK, Nankabirwa V, Tylleskar T. 'She would sit with me': Mothers' experiences of individual peer support for exclusive breastfeeding in Uganda. *Int Breastfeed J*. 2010;5:16.
- Thomson G, Crossland N, Dykes F. Giving me hope: Women's reflections on a breastfeeding peer support service. *Matern Child Nutr*. 2011;8(3):340–53.
- Wade D, Haining S, Day A. Breastfeeding peer support: are there additional benefits? *Community Pract*. 2009;82(12):30–3.
- McInnes RJ, Chambers JA. Supporting breastfeeding mothers: qualitative synthesis. *J Adv Nurs*. 2008;62(4):407–27.
- McFadden A, Gavine A, Renfrew MJ, Wade A, Buchanan P, Taylor JL, Veitch E, Rennie AM, Crowther SA, Neiman S, et al. Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database Syst Rev* 2017. 2017;2 <https://doi.org/10.1002/14651858.CD001141>.
- Burns E, Schmied V, Sheehan A, Fenwick J. A meta-ethnographic synthesis of women's experience of breastfeeding. *Matern Child Nutr*. 2010;6(3):201–19.
- Blyth R, Creedy DK, Dennis C, Moyle W, Pratt CB, De Vries SM. Effect of maternal confidence on breastfeeding duration: an application of breastfeeding self-efficacy theory. *Birth*. 2002;29(4):278–84.
- Ertem IO, Votto N, Leventhal JM. The timing and predictors of the early termination of breastfeeding. *J Pediatr*. 2001;107(3):543–8.
- Isabella PH, Isabella RA. Correlates of successful breastfeeding: a study of social and personal factors. *J Hum Lact*. 1994;10(4):257–64.
- Kirkland VL, Fein SB. Characterizing reasons for breastfeeding cessation throughout the first year postpartum using the construct of thriving. *J Hum Lact*. 2003;19(3):278–85.
- Matthews K, Webber K, McKim E, Banoub-Baddour S, Laryea M. Maternal infant-feeding decisions: reasons and influences. *Can J Nurs Res*. 1998;30(2): 177–98.
- Quinn AO, Koepsell D, Haller S. Breastfeeding incidence after early discharge and factors influencing breastfeeding cessation. *J Obstet Gynecol Neonatal Nurs*. 1997;26(3):289–94.
- Tracy SK, Hartz DL, Tracy MB, Allen J, Forti A, Hall B, White J, Lainchbury A, Stapleton H, Beckmann M, et al. Caseload midwifery care versus standard midwifery care for women of any risk. *Lancet*. 2013;382(9906):1723–32.
- Benson S. Adolescent mothers' experiences of parenting and breastfeeding: a descriptive study. *Breastfeed Rev*. 1996;4:19–27.
- Schmied V, Olley H, Burns E, Duff M, Dennis CL, Dahlen HG. Contradictions and conflict: a meta-ethnographic study of migrant women's experiences of breastfeeding in a new country. *BMC Pregnancy Childbirth*. 2012;12:163.
- Thomson G, Balaam MC, Hymers K. Building social capital through breastfeeding support: insights from an evaluation of a voluntary breastfeeding peer support service in north-West England. *Int Breastfeed J*. 2015;10:15.
- Dykes F, Flacking R. Encouraging breastfeeding: a relational perspective. *Early Hum Dev*. 2010;86(11):733–6.
- Dennis CL. Peer support within a health care context. *Int J Nurs Stud*. 2003; 40(3):321–32.
- Drentea P, Moren-Cross JL. Social capital and social support on the web: the case of an internet mother site. *Sociol Health Illn*. 2005;27(7):920–43.
- Mickelson K. Seeking social support: Parents in electronic support groups. In: Kiesler S, editor. *Culture of the Internet*. New Jersey: Laurence Erlbaum Associates; 1997. p. 157–78.
- Miyata K. Social support for Japanese mothers online and offline. In: Wellman B, Haythornthwaite C, editors. *The internet in everyday life*. Malden, MA: Blackwell Publishers; 2002. p. 520–48.

30. Gibbons MC, Fleisher L, Slamon RE, Bass S, Kandadai V, Beck JR. Exploring the potential of web 2.0 to address health disparities. *J Health Commun.* 2011;16(sup1):77–89.
31. Kontos EZ, Emmons KM, Puleo E, Viswanath K. Communication inequalities and public health implications of adult social networking site use in the United States. *J Health Commun.* 2010;15(sup3):216–35.
32. Levine D, Madsen A, Wright E, Barar RE, Santelli J, Bull S. Formative research on MySpace: online methods to engage hard-to-reach populations. *J Health Commun.* 2011;16(4):448–54.
33. Park H, Rodgers S, Stemmler J. Analyzing health organizations' use of twitter for promoting health literacy. *J Health Commun.* 2013;18(4):410–25.
34. Wright KB, Rosenberg J, Egbert N, Ploeger NA, Bernard DR, King S. Communication competence, social support, and depression among college students: a model of Facebook and face-to-face support network influence. *J Health Commun.* 2013;18(1):41–57.
35. Robinson L, Schultz J. New avenues for sociological inquiry: evolving forms of ethnographic practice. *Sociology.* 2009;43(4):685–98.
36. Dykes F, Flacking R. *Ethnographic research in maternal and child health*, 1st edn. New York: Routledge; 2016.
37. Chambliss DF, Schutt RK. *Making sense of the social world: methods of investigation*. 4th ed. Thousand Oaks: Sage Publications; 2013.
38. Netnography KRV. *Redefined*, 2nd edn. Thousand Oaks, CA: Sage; 2015.
39. Liang B, Scammon DL. E-word-of-mouth on health social networking sites: an opportunity for tailored health communication. *J Consum Behav.* 2011;10(6):322–31.
40. Bridges N. The faces of breastfeeding support: experiences of mothers seeking breastfeeding support online. *Breastfeed Rev.* 2016;24(1):11–20.
41. Binns CW, Breastfeeding SJA. Reasons for starting, reasons for stopping and problems along the way. *Breastfeed Rev.* 2002;10(2):13–9.
42. Cooke M, Sheehan A, Schmied V. A description of the relationship between breastfeeding experiences, breastfeeding satisfaction, and weaning in the first 3 months after birth. *J Hum Lact.* 2003;19(2):145–56.
43. White JM. Weaning: what influences the timing? *Community Pract.* 2009;82(12):34–7.
44. Robert E, Coppieters Y, Swennen B, Dramaix M. The reasons for early weaning, perceived insufficient breast milk, and maternal dissatisfaction: comparative studies in two Belgian regions. *Int Sch Res Notices.* 2014;678564:1–11.
45. Heath AM, Reeves-Tuttle C, Simons MSL, Cleghorn CL, Parnell WR. A longitudinal study of breastfeeding and weaning practices during the first year of life in Dunedin, New Zealand. *J Am Diet Assoc.* 2002;102(7):937–43.
46. Li R, Fein SB, Chen J, Grummer-Strawn L. Why mothers stop breastfeeding : mothers' self-reported reasons for stopping during the first year. *J Pediatr.* 2008;122(2):S69–76.
47. Tarrant M, Fong DYT, Wu KM, Lee ILY, Wong EMY, Sham A, Lam C, Dodgson JE. Breastfeeding and weaning practices among Hong Kong mothers: a prospective study. *BMC Pregnancy Childbirth.* 2010;10(27):1–12.
48. Schmied V, Beake S, Sheehan A, McCourt C, Dykes F. Women's perceptions and experiences of breastfeeding support: a metasynthesis. *Birth.* 2011;38(1):49–60.

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7.2 Conclusion

The research undertaken identifies that the closed Facebook groups hosted by the ABA provide both informational and emotional support that appears to be facilitated through an authentic presence from both trained peer breastfeeding counsellors and other mothers. The group administrators play a vital role in both responding to the queries and overseeing the discussions to ensure they adhere to the ABA's Code of Ethics.

CHAPTER EIGHT

8 Creating online communities to build positive relationships and increase engagement in not-for-profit organisations

8.1 Publication relevance to thesis

Chapter eight presents the paper titled: Bridges, N., Howell, G. V. J., & Schmied, V. (2019). Creating online communities to build positive relationships and increase engagement in not-for-profit organisations. *Asia Pacific Public Relations Journal*, 19.

The introduction of social media and SNSs such as Facebook has created public relations opportunities for not-for-profit organisations that are substantially different from those available via traditional websites. Of the many types of social media that exist, Facebook is the most valued platform by businesses, which is no surprise as Facebook has the largest user rate and a diverse range of users globally, making it a perfect platform for organisations to target their stakeholders. Drawing on a recent case study of the use of closed Facebook groups by the ABA, this paper demonstrates how SNSs such as Facebook can be used by not-for-profit organisations to create online communities that provide support for their stakeholders while building positive relationships that work towards achieving the elusive two-way symmetrical model of communication.

Creating online communities to build positive relationships and increase engagement in not-for-profit organisations

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The authors declare that they have no conflicts of interest.

Creating online communities to build positive relationships and increase engagement in not-for-profit organisations

Abstract

The introduction of social media and social networking sites (SNSs) such as Facebook, has created public relations opportunities for not-for-profit (NFP) organisations that are substantially different from those available via traditional websites. Of the many types of social media that exist, Facebook is the most valued platform by businesses, which is no surprise as Facebook has the largest user rate and a diverse range of users globally, making it a perfect platform for organisations to target their stakeholders. Drawing on a recent case study of the use of closed Facebook groups by the Australian Breastfeeding Association (ABA), this paper demonstrates how SNSs such as Facebook can be used by NFP organisations to create online communities that provide support for their stakeholders while building positive relationships that work towards achieving the elusive two-way symmetrical model of communication.

Keywords

Breastfeeding, Facebook, public relations, social networking sites, not-for-profit, excellence theory

Creating online communities to build positive relationships and increase engagement in not-for-profit organisations

Introduction

The introduction of social media and social networking sites (SNSs) such as Facebook, has created public relations opportunities for not-for-profit (NFP) organisations that are substantially different from those available via traditional websites. In addition to the static functions available on traditional websites, social media have enabled messaging capabilities, many interactive features, and most notably, the ability for these organisations to create their own communities and formal social networks (Saxton & Waters, 2014). Of the many types of social media that exist, Facebook is the most valued platform by businesses, which is no surprise as Facebook has the largest user rate and a diverse range of users globally, making it a perfect platform for organisations to target their stakeholders. With features like groups, pages and 'likes' it can also unite a group of stakeholders with similar interests (Mangles, 2017).

Until now, research into computer-mediated public relations has been predominantly quantitative and undertaken with one of two main purposes: gathering behavioural data on organisations' actions (Bortree & Seltzer, 2009; Rybalko & Seltzer, 2010; Saxton & Waters, 2014; Taylor, Kent, & White, 2001) or gathering attitudinal, survey-based and/or experimental data designed to measure stakeholder reactions to organisations' relationship-building efforts (Hall, 2006; Huang, 2001; Ki & Hon, 2007; Saxton & Waters, 2014; Waters & Bortree, 2010). Although both approaches have their merits, what has not been previously examined in great detail is how not-for-profit organisations encourage organisational relationship-building via the creation of online communities aimed at providing support for their stakeholders.

Drawing on a recent case study of the use of closed Facebook groups by the Australian Breastfeeding Association (ABA), this paper demonstrates how SNSs such as Facebook can be used by NFP organisations to create online communities that provide support for their stakeholders while building positive relationships that work towards achieving the elusive two-way symmetrical model of communication (Grunig & Grunig, 2011; Grunig & Hunt, 1984).

Literature Review

Social media use by organisations

The term social media refers to internet-based applications that enable users to generate and exchange their own web-based content, and vary in terms of the amount of self-disclosure and information richness they support online (Kaplan & Haenlein, 2010). Social media tools such as Facebook, offer organisations substantial opportunities for two-way communication and information exchange with their stakeholders without utilising traditional high-cost marketing techniques, such as direct mail, meetings, or telephone calls. Facebook posts and other social media activities allow organisations to reach out to stakeholders simultaneously as a group, of whom many will engage with those organisations via social media (A. F. Clark, Maxwell, & Anestaki, 2016). Social media offer a "platform" where organisations can develop and nurture online relationships with their stakeholders and engage them in open, two-way conversation (Briones, Kuch, Fisher Liu, & Jin, 2011; DiStaso & Bortree, 2012; Lovejoy & Saxton, 2012), without the time constraints of face-to-face interactions.

How stakeholders become and stay involved with organisations on Facebook via likes, shares, and comments is referred to as “social media engagement” and the social media industry defines “engagement” in terms of the responses made by end users (Big Commerce, 2018; Facebook, 2018; Wall Street Journal, 2015). The same definitions are also utilised in calculating stakeholder engagement among NFP organisations (Carboni & Maxwell, 2015; Saxton & Waters, 2014) and the number of likes, shares, and comments is used to assess stakeholders’ preferred Facebook content for not-for-profit organisations on the Nonprofit Times Top 100 list (Saxton & Waters, 2014). Facebook users prefer two-way communication over simple information sharing, and posts focused on community-building attract higher levels of engagement (A. F. Clark et al., 2016). Social media embodies an interactive paradigm of public relations by highlighting the concepts of engagement, transparency, authenticity and dialogue in the online environment (Schoenmaker, 2014).

Schoenmaker’s (2014) case study analysis of social media use in public relations practice revealed that social media is not as ‘social’ as the name suggests, as practitioners’ online behavior indicates they are sharing and conversing, but not relating. Practitioner’s use of social media demonstrates its interactivity but further guidance is required to create strategies for online interactions that surpass sharing, and result in online relationships (Linke & Zerfass, 2013). Public relations practitioners are generally very skilled in relating to their stakeholders offline and the focus needs to shift to developing equal knowledge in relating online (Schoenmaker, 2014).

Many organisations have recognised the opportunities social media provides for engaging with stakeholders and have eagerly adopted it as a part of their communication tool kit (Cho, Schweickart, & Haase, 2014). Among the most active social media users are NFP organisations who have identified the value of social media as a tool to engage their stakeholders without the need to spend precious dollars (Barns & Andonian, 2011). Given the flexibility and low cost of social media, one might assume that NFP organisations may actively pursue relationship building via Facebook. Existing research surrounding NFPs’ use of social media has yielded mixed results. Early studies found that NFPs had not yet utilised social media to their fullest potential as tools to engage stakeholders (Bortree & Seltzer, 2009; Ingenhoff & Koelling, 2009; Waters, Burnett, Lamm, & Lucas, 2009; Waters & Jamal, 2011). More recent research reveals that particular types of NFPs, such as advocacy organisations, are taking full advantage of the opportunity to disseminate information and build relationships with key stakeholders and the public (Guo & Saxton, 2014; JotForm, 2017). However, although there is substantial potential for public engagement, most not-for-profit organisations use social media primarily for the dissemination of information (as it is more cost-effective than traditional media), rather than taking advantage of the interactive nature of social media (Bortree & Seltzer, 2009; Cho et al., 2014; Lovejoy & Saxton, 2012; Waters & Jamal, 2011). In other words, NFP organisations primarily engage a one-way communication or public information model (Grunig & Hunt, 1984) when communicating with their stakeholders via social media (Cho et al., 2014).

Social media and public relations theory

Public relations scholars Grunig and Hunt (1984), developed four models of public relations: press agency/publicity, public information, two-way asymmetric, and two-way symmetric. James Grunig then led a series of studies in which the idea of two-

way symmetric communication as a best practice in public relations was further developed (Verheyden & Cardon, 2018). These studies culminated in a normative framework that continues to influence public relations theory today. However, Excellence Theory has attracted its share of criticism and public relations professionals need to move beyond the initial simplistic four models of communication to meet the public relations needs of organisations, both now and into the future (Kenny, 2016). Consequently, Kent and Taylor (2002) stated that “a theoretical shift” had changed the emphasis in public relations from “managing communication” to “communication as a tool for negotiating relationships” (p. 23). With the advent of social media, Grunig (2009) was hopeful that public relations practice would become more global, strategic, two-way and interactive, symmetrical or dialogical, and socially responsible. Similarly, Theunissen and Wan Noordin (2012) refer to “the public relations industry’s infatuation with social media as a way of engaging in dialogue” (p.9). Indeed, the first three of Grunig and Hunt’s (1984) communication models (press agency, public information, and two-way asymmetric) place the emphasis on the organisation, whereas the two-way symmetrical model assigns all parties equal power position in the communication process (Verheyden & Cardon, 2018). However, although the majority of contemporary public relations theory emphasises the importance of two-way communication, it is difficult to find examples of this in practice (Macnamara, 2009).

Social media and NFP organisations

SNSs have created new opportunities for NFP organisations in terms of transparency, dissemination of information, and engagement with stakeholders (Lovejoy, Waters, & Saxton, 2012). Generating deep engagement with stakeholders is regarded as the most important potential purpose of SNSs for not-for-profit organisations, because engagement can lead to collective action in the community or facilitate greater social impact (Aaker & Smith, 2010). Online communities represent a new potential for organisations to gather independent advocates for their organisation (Ihm, 2015) and for gathering individuals who self-organise around causes through collaborating with each other (Kanter, 2009).

Taylor and Kent (1998) pioneered the study of how organisations build relationships through the Internet with two-way dialogic communication channels. They noted that the Internet provides an opportunity to create organisational- public relationships (OPRs) through dialogic components (such as online forums) that provide input by and communication to stakeholders. Since this research was undertaken, several new social media channels have emerged such as Facebook, but the basic principles of relationship building through dialogic communication on the Internet still remain. The principles include: 1) include useful information on the site; 2) frequently update sites and generate new content to engage publics and encourage return visits; 3) make the sites easy to use and navigate; and 4) strive to keep publics on the site (Briones et al., 2011).

Since then, further research on dialogic communication via the Internet has included Taylor et al. (2001) who found many organisations are not using the Internet in a dialogic manner, and Bortree and Seltzer (2009) who found this to be true in terms of blogs and social networking sites. One of their key findings was that organisations need to adhere to Taylor and Kent’s (1998) principles by responding to posts and providing useful information. Hallahan (2008) started with Taylor and Kent’s (1998) dialogic principles and applied five concepts to measure OPRs in the online

environment: commitment, control mutuality, communality, trust, and satisfaction. Commitment evaluates how stakeholders view an organisation's commitment to online engagement; control mutuality measures how interactive organisations are with their publics; communality refers to how the organisation and public identify with each other in terms of their values, beliefs, and interests; trust can be hard to achieve in an online OPR as the organisation must be seen as believable, competent, reliable, and consistent; and satisfaction contributes to whether or not the OPR meets the needs of the online community. Kent (2008) updated the original research on dialogic communication to focus on relationship building through blogs and discovered that blogs provide organisations benefits such as "issue framing, relationship building, fostering trust, and identification" (p. 37). In summary, research on online relationship management shows that when practitioners understand the aspects of social networking sites, they can use them to engage and develop relationships with key publics (Macnamara, 2010; Nah & Saxton, 2012; Taylor & Howell, 2011).

Social media use in Australia

Since 2010, the use of SNSs has become a prominent global trend. Facebook is the dominant SNS among Australian users with 97% of female SNS users maintaining a Facebook profile (compared with YouTube – 43%, Instagram – 41% and Snapchat – 36%) (Sensis, 2017, p. 18). In 2016-17, approximately 86% of Australian households have access to the internet (up from 83% in 2012 - 13) (Australian Bureau of Statistics, 2018). As of May 2018, a total of around 60% of the country's population are active Facebook users, and 50% of the country log onto Facebook at least once a day (Cowling, 2018). Furthermore, SNS users engage in these platforms to satisfy social-emotional needs rather than informational needs. Additionally, because SNSs are built based on ones' existing social ties, the interpersonal relationships on a SNS tend to be more intense than on general OSGs, where users often collaborated around a common interest (Rau, Gao, & Ding, 2008).

Given the numerous benefits that social media provides for NFP organisations, this paper draws on a recent study of the ABA's Facebook use to inform public relations practice. It will do so by demonstrating how a NFP organisation can effectively engage in relationship building through two-way communication with its stakeholders via the creation of communities using SNSs such as closed Facebook groups. The findings of this recent netnographic study of these closed Facebook groups (Bridges, 2016a, 2016b; Bridges, Howell, & Schmied, 2018b), demonstrate how SNSs such as Facebook can be engaged by NFP organisations to create online communities that provide support for their stakeholders while building positive relationships.

Case study – Australian Breastfeeding Association

Background

Supporting breastfeeding is a vital public health strategy, as the health benefits of breastmilk span the entire continuum of childhood: newborn, infancy and early childhood (Sankar et al., 2015). Breastfeeding is not only important for babies, but also mothers and families, in addition to having substantial economic benefits for the wider community (Victora et al., 2016). The National Health and Medical Research Council of Australia (NHMRC) has endorsed the WHO/UNICEF strategy recommending infants be exclusively breastfed for the first six months and continue to be breastfed following the introduction of solid foods until at least 12 months of age (National Health & Medical Research Council, 2013).

Yet global rates of breastfeeding remain low, with only 43% of the world's newborns put to the breast within one hour of birth (World Health Organization, 2014). Australia has a relatively high breastfeeding initiation rate of 96% (Australian Institute of Health and Welfare, 2011), yet exclusive breastfeeding rates drop off with less than half (39%) of babies still being exclusively breastfed at three months and 15% at five months. Breastfeeding peer support is recognised as a vital intervention to support breastfeeding that can be effective in increasing breastfeeding rates (A. Clark, Baker, McGirr, & Harris, 2018; Phillips et al., 2018; Powell et al., 2018; Thomson, Crossland, & Dykes, 2011). Extensive previous research demonstrates that women value the support they receive from other mothers as they have similar experiences they can relate to through a shared language (Harari et al., 2018; Nankunda, Tumwine, Nankabirwa, & Tylleskar, 2010; Rossman et al., 2011; Trickey et al., 2018).

In Australia, peer support is provided by the ABA's 1200 trained volunteer breastfeeding counsellors and community educators, who support parents via telephone, online and face-to-face services. These include the 24-hour Breastfeeding Helpline, Live Chat, antenatal Breastfeeding Education Classes, local support groups and evidence-based information provided online and in a range of publications. The ABA volunteers providing these services are mothers who have breastfed and completed a Certificate IV in Breastfeeding Education. They work voluntarily to provide empathy, reassurance, and up-to-date information to help other mothers (Australian Government Department of Health, 2017). Recently, these support services have extended to providing peer support via SNSs such as Facebook, Instagram and Twitter (Bridges et al., 2018b).

Approach

The case study data is derived from a netnography that was undertaken following the activities of 15 individual ABA sanctioned closed Facebook groups. Netnography finds its roots in the area of marketing and consumer research, which incorporates insights from a range of research fields, such as anthropology, sociology, and cultural studies. Despite this, anthropologists (the original 'ethnographers') have been reluctant to follow communities into the online space (Beaulieu, 2004; Garcia, Standlee, Beckhoff, & Cui, 2009; Hakken, 1999; Miller & Slater, 2000). While the divide between online social life and face-to-face communication was previously thought to be significant (Bargh & McKenna, 2004) many now recognise that the two worlds have blended into one (Hine, 2005; Markham & Baym, 2009; Pink et al., 2015), and this hybrid world includes the use of technology to communicate, commune, socialise, express, and understand communities (Kozinets, 2015). All wall posts and comments as images for these groups was captured over a four-week period between July 21 and August 17, 2013. Additionally, online in-depth interviews with administrators of three of these closed Facebook groups occurred in late 2013 and early 2014. These three groups were chosen as interesting cases for study due to the nature and volume of posts. Six to eight participants from those three groups then participated in online focus groups (Bridges, 2016a).

Overview of study findings

This study explored the frequency of posts of the two types of support identified (informational and emotional) and what types of responses these posts elicit. It was found that when asking for support and when sharing information, the majority of users seeking or sharing a combination of informational and emotional support

(Bridges, Howell, & Schmied, 2018a). Support providers made comments that matched the query and featured precision, timeliness, credibility and depth. Additionally, the types of support-giving comments were significantly associated with the types of support-seeking posts. The findings also indicated that the support from support providers matched the requests from support seekers, providing congruency and also relationality (Bridges et al., 2018a).

A thematic analysis of the depth interview and focus group data identified the overarching theme was 'support', with four sub-themes that describe the nature of online breastfeeding support within the Facebook environment. These sub-themes are: 'community', 'complementary', 'immediate' and 'information'. The SNSs provided support from a trusted community. This support was immediate, complemented existing support or services of the ABA, and also provided practical and valuable information for its users (Bridges, 2016b).

This study also identified the specific breastfeeding topics that women were seeking assistance with via SNSs such as Facebook. Of the 72 queries that were specific breastfeeding questions, 55 (76%) were categorised into the three topic areas of 'breastfeeding management', 'breastfeeding and health', and 'breastfeeding and work'. These are all topics cited as some of the most common reasons for weaning, and important areas for future study. The research also found that these types of SNSs facilitated by trained peer supporters are more likely to facilitate an authentic presence and facilitative style, both recognised as the most effective methods of breastfeeding support (Bridges et al., 2018b).

Discussion of case study

As social media is now mainstream, NFP organisations need to update their strategies and tactics to build positive relationships and increase engagement. This case study illuminates the importance of social media for NFPs like the ABA and demonstrates how this type of organisation can achieve these goals using social media. The ABA has achieved this via the creation of online communities that not only meet the needs of their stakeholders through the provision of informational and emotional support for breastfeeding mothers, but also contribute to the broader public health aim of increasing breastfeeding rates. This study revealed that the majority of community members are not simply seeking information, typical of a one-way communication model (Grunig & Grunig, 2008), rather they are seeking informational and emotional support that can only be achieved through a two-way symmetrical dialogue as demonstrated in these Facebook communities, and as preferred by the majority of Facebook users (A. F. Clark et al., 2016).

The ABA are displaying successful dialogic social media use, demonstrating Taylor and Kent's (1998) principles. They have clearly shared useful 'information' as indicated by the finding that the support from support providers matched the requests from support seekers, providing congruency and also relationality. The fact that community members reported the 'immediate' nature of the Facebook groups as being a key feature indicates that members provided frequent updates and timely information to support seekers. Frequent and timely information increases the overall impact of an organisation trying to establish relationships, achieving strategic value for the organisation (Briones et al., 2011).

This study also revealed the importance of a sense of 'community' to the members of these closed Facebook groups, and how it contributed to positive relationships among

members. Indeed, community building has been recognised as one of the most significant benefits of social media for NFP and advocacy organisations like the ABA (Campbell, 2018; Guo & Saxton, 2014; Schoenmaker, 2014). NFP organisations stand to benefit from their social media stakeholder relationship building efforts, considering the fact that strategic interaction and sustained relationships with supportive stakeholders lead to higher levels of trust in and commitment to the organisation (Lovejoy & Saxton, 2012; Waters, 2009, 2011).

Another important finding was that of the authentic presence and facilitative style of engagement demonstrated in the ABA's closed Facebook groups (Bridges et al., 2018b). Social media highlights the concepts of authenticity and engagement which are known to be essential to the interactivity of public relations (Schoenmaker, 2014) and it is recognised that SNSs like Facebook have created new opportunities for NFPs in terms of deep engagement with stakeholders (Lovejoy et al., 2012) which can lead to collective action in the community or facilitate greater social impact via advocacy (Aaker & Smith, 2010; Ihm, 2015; Kanter, 2009).

Finally, the results of the study demonstrate how the ABA have developed online communities that are authentically meeting the needs of their stakeholders, relating back to Hallahan's (2008) concepts of measurement for OPRs in the online environment: the ABA have demonstrated their commitment to online engagement; have created online communities with high levels of interactivity; these are communities where there is a synergy between the organisation and the stakeholders with regard to the values, beliefs and interests of both parties; the closed Facebook groups are recognised as trusted environments; and the fact that the support providers offered comments that matched the original query and featured precision, timeliness, credibility and depth stakeholders are satisfied demonstrates that these groups met the needs of the online community, as peer support is universally recognised as a vital intervention to support breastfeeding (A. Clark et al., 2018; Phillips et al., 2018; Powell et al., 2018; Thomson et al., 2011).

Conclusion

The ABA is utilising closed Facebook groups to develop relationships that focus on meeting the informational and emotional support needs of their external and internal stakeholders. By providing a two-way symmetric dialogue through social media, that does not primarily focus on promoting the ABA and breastfeeding but rather providing support to its stakeholders, the ABA is able to provide an additional form of support that serves several important purposes. This study provides a lesson in opportunities that can be applied to any organisation aimed at providing not only peer support to mothers but peer support in general. Indeed, closed Facebook groups like those engaged by the ABA have led to public relations practice that has become more global, strategic, two-way and interactive, symmetrical or dialogical, and socially responsible, as Grunig had envisioned (2009) .

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References

- Aaker, J., & Smith, A. (2010). *The dragonfly effect: Quick, effective, and powerful ways to use social media to drive change*. San Francisco: Jossey Bass.
- Australian Bureau of Statistics. (2018). 8146.0 - Household Use of Information Technology, Australia, 2016-17 Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>
- Australian Government Department of Health. (2017). Australian Breastfeeding Association. Retrieved from <https://www.healthdirect.gov.au/partners/australian-breastfeeding-association>
- Australian Institute of Health and Welfare. (2011). 2010 Australian National Infant Feeding Survey: Indicator Results. Retrieved from <http://www.aihw.gov.au/publication-detail/?id=10737420927>
- Bargh, J. A., & McKenna, K. Y. (2004). The internet and social life. *Annual Review of Psychology*, 55, 573.
- Barns, N. G., & Andonian, J. (2011). The 2011 Fortune 500 and social media adoption: Have America's largest companies reached social media plateau? Retrieved from <https://fayebsg.com/wp-content/uploads/2011/11/The-2011-Fortune-500-and-Social-Media-Adoption-Have-Americas-Largest-Companies-Reached-a-Social-Media-Plateau.pdf>
- Beaulieu, A. (2004). Mediating ethnography: Objectivity and the making of ethnographies of the Internet. *Social Epistemology*, 18(2), 139-163.
- Big Commerce. (2018). What is social media engagement? Retrieved from <https://www.bigcommerce.com.au/ecommerce-answers/what-is-social-media-engagement/>
- Bortree, D. S., & Seltzer, T. (2009). Dialogic strategies and outcomes: An analysis of environmental advocacy groups' Facebook profiles. *Public Relations Review*, 35(3), 317 - 319.
- Bridges, N. (2016a). Facebook as a netnographic research tool. *Global Media Journal*, 10(1), 1-8.
- Bridges, N. (2016b). The Faces of Breastfeeding Support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review*, 24(1), 11-20.
- Bridges, N., Howell, G. V. J., & Schmied, V. (2018a). Breastfeeding peer support on social networking sites. *Breastfeeding Review*, Under review.
- Bridges, N., Howell, G. V. J., & Schmied, V. (2018b). Exploring breastfeeding support on social media. *International Breastfeeding Journal*, 13(22), 1 - 9.
- Briones, R. L., Kuch, B., Fisher Liu, B., & Jin, Y. (2011). Keeping up with the digital age: How the American Red Cross uses social media to build relationships. *Public Relations Review*, 37(1), 37 - 43.
- Campbell, V. (2018). *Facebook and relationship building in a registered charity: An exploration of Facebook communication to enhance real world relationships with the Australian Breastfeeding Association (ABA)*. (Master of Communication Dissertation), Charles Sturt University, Bathurst.
- Carboni, J. L., & Maxwell, S. P. (2015). Effective social media engagement for nonprofits: What matters? *Journal of Nonprofit and Public Affairs*, 1(1), 18 - 28.

- Cho, M., Schweickart, T., & Haase, A. (2014). Public engagement with nonprofit organizations on Facebook. *Public Relations Review*, 40(3), 565 - 567.
- Clark, A., Baker, S. S., McGirr, K., & Harris, M. (2018). Breastfeeding Peer Support Program Increases Breastfeeding Duration Rates among Middle- to High-Income Women. *Breastfeeding Medicine*, 13(2), 112 - 115.
- Clark, A. F., Maxwell, S. P., & Anestaki, A. (2016). Bach, Beethoven, and benefactors: Facebook engagement between symphonies and their stakeholders. *International Journal of Nonprofit and Voluntary Sector Marketing*, 21(2), 96 - 108.
- Cowling, D. (2018). Social media statistics Australia - May 2018. Retrieved from <https://www.socialmedianews.com.au/social-media-statistics-australia-may-2018/>
- DiStaso, M. W., & Bortree, D. S. (2012). Multi-method analysis of transparency in social media practices: Survey, interviews and content analysis. *Public Relations Review*, 38(3), 511 - 514.
- Facebook. (2018). Post Engagement. Retrieved from <https://www.facebook.com/business/help/735720159834389>
- Garcia, A. C., Standlee, A. I., Beckhoff, J., & Cui, Y. (2009). Ethnographic Approaches to the Internet and Computer-Mediated Communication. *Journal of Contemporary Ethnography*, 38(52), 52-84.
- Grunig, J. E. (2009). Paradigms of global public relations in an age of digitalisation. *PRism*, 6(2), 1 - 19.
- Grunig, J. E., & Grunig, L. A. (2008). Excellence theory in public relations: Past, present, and future. In A. Zerfass, B. van Ruler, & K. Sriramesh (Eds.), *Public Relations Research: VS Verlag für Sozialwissenschaften*.
- Grunig, J. E., & Grunig, L. A. (2011). Public Relations Excellence 2010. *Journal of Professional Communication*, 1(1), 41 - 54.
- Grunig, J. E., & Hunt, T. (1984). *Managing public relations*. New York: Holt, Rinehart and Winston.
- Guo, C., & Saxton, G. D. (2014). Tweeting social change: How social media are changing nonprofit advocacy. *Non-profit and Voluntary Sector Quarter*, 43(1), 57 - 79.
- Hakken, D. (1999). *Cyborgs@Cyberspace?: An ethnographer looks at the future*. London: Routledge.
- Hall, M. R. (2006). Corporate philanthropy and corporate community relations: Measuring relationship-building results. *Journal of Public Relations Research*, 18(1), 1 - 21.
- Hallahan, K. (2008). Organizational-public relationships in cyberspace. In T. L. Hansen-Horn & B. D. Neff (Eds.), *Public relations: From theory to practice* (pp. 46 - 73). Boston, MA: Pearson.
- Harari, N., Rosenthal, M. S., Bozzi, V., Goeschel, L., Jayewickreme, T., Onyebeke, C., . . . Perez-Escamilla, R. (2018). Feasibility and acceptability of a text message intervention used as an adjunct tool by WIC breastfeeding peer counsellors: The LATCH pilot. *Maternal & Child Nutrition*, 14(1).
- Hine, C. (2005). *Virtual methods* (C. Hine Ed.). London: Berg Publishers.
- Huang, Y. H. (2001). OPRA: A cross-cultural, multiple item scale for measuring organization-public relationships. *Journal of Public Relations Research*, 13(1), 61 - 90.

- Ihm, J. (2015). Network measures to evaluate stakeholder engagement with nonprofit organizations on social networking sites. *Public Relations Review*, 41(4), 501 - 503.
- Ingenhoff, D., & Koelling, A. M. (2009). The potential of web sites as a relationship building tool for charitable fundraising NPOs. *Public Relations Review*, 35(1), 66 - 73.
- JotForm. (2017). Chapter 10: Social media for nonprofits. Retrieved from <https://www.jotform.com/help/484-Chapter-10-Social-Media-for-Nonprofits>
- Kanter, B. (2009). 4 ways social media is changing the non-profit world. Retrieved from <https://mashable.com/2009/05/22/non-profit-social-media/-D7wXTtwQYPqT>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59 - 68.
- Kenny, J. (2016). Excellence Theory and its critics: A literature review critiquing Grunig's strategic management of public relations paradigm. *Asia Pacific Public Relations Journal*, 17(2), 78 - 91.
- Kent, M. L. (2008). Critical analysis of blogging in public relations. *Public Relations Review*, 34(1), 32 - 40.
- Kent, M. L., & Taylor, M. (2002). Toward a dialogic theory of public relations. *Public Relations Review*, 28(1), 21 - 37.
- Ki, E. J., & Hon, L. C. (2007). Testing the linkages among the organization-public relationship and attitude and behavioral intentions. *Journal of Public Relations Research*, 19(1), 1 - 23.
- Kozinets, R. V. (2015). *Netnography: Redefined* (2nd ed.). Thousand Oaks, CA: Sage.
- Linke, A., & Zerfass, A. (2013). Social media governance: Regulatory frameworks as drivers of success in online communications. *Journal of Communication Management*, 17(3), 270 - 286.
- Lovejoy, K., & Saxton, G. D. (2012). Information, community, and action: How nonprofit organizations use social media. *Journal of Computer-Mediated Communication*, 17(3), 337 - 353.
- Lovejoy, K., Waters, R. D., & Saxton, G. D. (2012). Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less. *Public Relations Review*, 38(2), 313 - 318.
- Macnamara, J. (2009). Public relations in an interactive age: The need for new practices, not just new media. *Asia Pacific Public Relations Journal*, 10(1), 1 - 15.
- Macnamara, J. (2010). Public relations and the social: How practitioners are using, or abusing, social media. *Asia Pacific Public Relations Journal*, 1 - 14.
- Mangles, C. (2017). How businesses use social media: 2017 report. Retrieved from <https://www.smartinsights.com/social-media-marketing/social-media-strategy/businesses-use-social-media-2017-report/>
- Markham, A. N., & Baym, N. K. (2009). *Internet inquiry*. Thousand Oaks, CA: Sage Publishing, Inc.
- Miller, D., & Slater, D. (2000). *The Internet: An ethnographic approach*. Oxford: Berg.
- Nah, S., & Saxton, G. D. (2012). Modeling the adoption and use of social media by nonprofit organizations. *New Media & Society*, 15(2), 294 - 313.

- Nankunda, J., Tumwine, J. K., Nankabirwa, V., & Tylleskar, T. (2010). 'She would sit with me': Mothers' experiences of individual peer support for exclusive breastfeeding in Uganda. *International Breastfeeding Journal*, 5(16), 16.
- National Health & Medical Research Council. (2013). Infant Feeding Guidelines: information for health workers (2012). Retrieved from <https://www.nhmrc.gov.au/guidelines-publications/n56>
- Phillips, R., Copeland, L., Grant, A., Sanders, J., Gobat, N., Tedstone, S., . . . Brown, A. (2018). Development of a novel motivational interviewing (MI) informed peer-support intervention to support mothers to breastfeed for longer. *BMC Pregnancy Childbirth*, 18(1), 90.
- Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2015). *Digital Ethnographies: Principles and practice*
- Powell, R. M., Mitra, M., Smeltzer, S. C., Long-Bellil, L. M., Smith, L. D., Rosenthal, E., & Iezzoni, L. I. (2018). Breastfeeding among women with physical disabilities in the United States. *Journal of Human Lactation*, 34(2), 253 - 261.
- Rau, P. L. P., Gao, Q., & Ding, Y. (2008). Relationship between the level of intimacy and lurking in online social network services. *Computers in Human Behavior*, 24(6), 2757-2770.
- Rossman, B., Engstrom, J. L., Meier, P. P., Vonderheid, S. C., Norr, K. F., & Hill, P. D. (2011). 'They've walked in my shoes': Mothers of very low birth weight infants and their experiences with breastfeeding peer counselors in the neonatal intensive care unit. *Journal of Human Lactation*, 27, 14-24.
- Rybalko, S., & Seltzer, T. (2010). Dialogic communication in 140 characters or less: How Fortune 500 companies engage stakeholders using Twitter. *Public Relations Review*, 36(4), 336 - 341.
- Sankar, M. J., Sinha, B., Chowdhury, R., Bhandari, N., Taneja, S., Martinez, J., & Bahl, R. (2015). Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 3-13.
- Saxton, G. D., & Waters, R. D. (2014). What do stakeholders like on Facebook? Examining public relations to nonprofit organizations' informal, promotional, and community-building messages. *Journal of Public Relations Research*, 26(3), 280 - 299.
- Schoenmaker, S. (2014). Organisational narratives shaping practitioners' use of social media. *PRism*, 11(2), 1 - 15.
- Sensis. (2017). *Sensis Social Media Report 2017*. Retrieved from Australia: <https://www.sensis.com.au/asset/PDFdirectory/Sensis-Social-Media-Report-2017.pdf>
- Taylor, M., & Howell, G. V. J. (2011). When a crisis happens, who turns to Facebook and why? *Asia Pacific Public Relations Journal*, 12(2).
- Taylor, M., & Kent, M. L. (1998). Building dialogic relationships through the world wide web. *Public Relations Review*, 24(3), 321 - 334.
- Taylor, M., Kent, M. L., & White, W. J. (2001). How activist organizations are using the Internet to build relationships. *Public Relations Review*, 27(3), 263 - 284.
- Theunissen, P., & Wan Noordin, W. N. (2012). Revisiting the concept dialogue in public relations. *Public Relations Review*, 38(1), 162 - 164.
- Thomson, G., Crossland, N., & Dykes, F. (2011). Giving me hope: Women's reflections on a breastfeeding peer support service. *Maternal & Child Nutrition*, 8(3), 340-353.

- Trickey, H., Thomson, G., Grant, A., Sanders, J., Mann, M., Murphy, S., & Paranjothy, S. (2018). A realist review of one-to-one breastfeeding peer support experiments conducted in developed country settings. *Maternal & Child Nutrition*, 14(1), e12559.
- Verheyden, M., & Cardon, P. (2018). Social software and internal communicators' gatekeeping sense of self. *Public Relations Journal*, 44(2018), 299 - 307.
- Victora, C. G., Bahl, R., Barros, A. J. D., Franca, G. V. A., S, H., & Krasevec, J. (2016). Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet*, 387(10017), 475 - 490.
- Wall Street Journal. (2015). Buzz, engagement and reach performances of the Wall Street Journal on social media. Retrieved from <https://www.talkwalker.com/industry-research/newspaper/the-wall-street-journal-social-media-analytics>
- Waters, R. D. (2009). Measuring stewardship in public relations: A test exploring impact on the fundraising relationship. *Public Relations Review*, 35(2), 113 - 119.
- Waters, R. D. (2011). Redefining stewardship: Examining how Fortune 100 organizations use stewardship with virtual stakeholders. *Public Relations Review*, 37(2), 129 - 136.
- Waters, R. D., & Bortree, D. S. (2010). Building a better workplace for teen volunteers through inclusive behaviors. *Nonprofit Management & Leadership*, 20(3), 337 - 355.
- Waters, R. D., Burnett, E., Lamm, A., & Lucas, J. (2009). Engaging stakeholders through social networking: How non-profit organizations are using Facebook. *Public Relations Review*, 35(2), 102 - 106.
- Waters, R. D., & Jamal, J. Y. (2011). Tweet, tweet, tweet: A content analysis of non-profit organizations' Twitter updates. *Public Relations Review*, 37(2), 321 - 324.
- World Health Organization. (2014). Infant and young child feeding. In World Health Organization (Ed.). Geneva.

8.2 Conclusion

The ABA is utilising closed Facebook groups to develop relationships that focus on meeting the informational and emotional support needs of their external and internal stakeholders. By providing a two-way symmetric dialogue through social media that does not primarily focus on promoting the ABA and breastfeeding but rather providing support to its stakeholders, the ABA is able to provide an additional form of support that serves several important purposes. This study provides a lesson in opportunities that can be applied to any organisation aimed at providing not only peer support to mothers but peer support in general. Indeed, closed Facebook groups like those engaged by the ABA have led to public relations practice that has become more global, strategic, two-way and interactive, symmetrical or dialogical, and socially responsible.

CHAPTER NINE

9 Discussion

9.1 Introduction

The key purpose of this netnographic study was to explore the experiences of women who seek breastfeeding support online. This study had the following objectives:

- 1) To identify the types of social support engaged in closed Facebook groups attached to the ABA;
- 2) To advance understanding of the experiences of mothers using closed Facebook groups attached to the ABA and how these mothers find and share breastfeeding support and information;
- 3) To investigate the specific breastfeeding topics that women are researching via SNSs such as Facebook, and how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS.

To achieve these objectives, a methodology was used that incorporated three phases of data collection:

- 1) Observation of the activities of 15 individual ABA sanctioned closed Facebook groups. All wall posts and comments as images for these groups was captured over a four-week period between July 21 and August 17, 2013.
- 2) Online in-depth interviews (utilising Facebook “Chat” function) with administrators of three ABA closed Facebook groups in late 2013, early 2014.
- 3) Online focus groups (utilising Facebook “Events” function) of groups of six to eight active participants from each of these three groups in late 2014.

This chapter will provide an overview of these findings, followed by discussion of the key areas of the breastfeeding topics mothers sought support for, the type of support they were seeking, and the ways the community responded to these requests for support. The chapter will conclude with a discussion of the limitations of the study.

9.2 Study findings – an overview

Various studies have identified the benefits of computer-mediated social support groups that not only accommodate the individuals requiring or seeking support, but also the parents, family and carers (Haberstroh & Moyer, 2012; Liang & Scammon, 2011; Vilhauer, McClintock, & Matthews, 2010). The results from this study demonstrate how participation in an ABA Facebook social support group provides immediate information and support for breastfeeding mothers (Bridges, 2016).

The major findings of this study are detailed below. Overwhelmingly, breastfeeding peer support is the key purpose of these online groups. Therefore, it was recognised that the participants have clear boundaries and are generally not entering into personal discussions other than those related to breastfeeding and parenting. Of the 72 queries that were specific breastfeeding questions, 55 (76 percent) were categorised into the three topic areas of breastfeeding management, breastfeeding and health, and breastfeeding and work – all themes universally recognised as some of the most common reasons for the cessation of breastfeeding.

The type of support that women were seeking was primarily informational, with additional emotional support provided in the form of comments and responses to comments with supportive language. As there were no posts (queries or shares) that were only emotional (did not contain any request for or sharing of information), Facebook group participation seems more functional – providing information and probably confirming positions that the posters take and the views they want reinforced. They do not seem to provide emotional support through relationality in the same way that a face-to-face support group does (Bridges, Howell, & Schmied, 2018; Dykes & Flacking, 2010). The overarching theme of support was underlined by the four sub-themes identified and explored in this study, that is community, complementary, immediate and information.

The use of netnography for this study allowed for an in-depth evaluation and understanding of the experiences of women who seek breastfeeding support online. Using a fully online approach to data collection provided a unique vantage point from which to view these online communities. Given the fact that breastfeeding mothers were creating these online communities to fulfil a need for information and support at a time and place convenient and accessible to them, observing these everyday life

exchanges in the online space had the potential to add to the understanding of this unique field site.

9.2.1 Breastfeeding topics mothers sought support for

This study observed 15 closed Facebook groups created for breastfeeding support over a four-week period, explored the 72 posts that were specific breastfeeding queries, and found that 55 (76 percent) were categorised into the three topics areas of breastfeeding management, breastfeeding and health, and breastfeeding and work. These are topics universally recognised as major contributors to early weaning and it is evident from the literature that these themes are common in high income countries and important areas in need of support for breastfeeding mothers to meet their breastfeeding goals (Binns & Scott, 2002; Robert, Coppieters, Swennen, & Dramaix, 2014; M. Tarrant et al., 2010). When questioned about the specific reasons for weaning related to these three topic areas, problems with attachment (including painful and cracked nipples) was among one of the most often cited, in addition to insufficient milk, returning to work and maternal illness (Binns & Scott, 2002; Li et al., 2008; Robert et al., 2014; M. Tarrant et al., 2010).

Participants also described the way the closed Facebook groups met their needs for information and education about breastfeeding. Several studies have reported that women expect to seek and receive information about breastfeeding in the early postpartum period (Shakespeare, Blake, & Garcia, 2004; Sheehan, Schmied, & Barclay, 2009), viewing it as a time of becoming educated (Hailes & Wellard, 2000; Nelson, 2006).

In the literature, emphasis is placed on an individual's need to obtain information about their health care which is necessary to enable their active participation in decision-making (Coulson & Shaw, 2013). Increased knowledge and participation in making important decisions about their care can in turn enhance an individual's sense of control over their life in general (K. Campbell, Coulson, & Buchanan, 2013; Mo & Coulson, 2012; van Uden-Kraan et al., 2008). This is closely linked to the important concept of maternal breastfeeding 'self-efficacy', which refers to the confidence a woman has in her ability to breastfeed her baby (Dennis, 1999). Effective breastfeeding support from a woman's perspective will lead to increased confidence. Other research has demonstrated that confidence and self-efficacy are linked to an

increase in breastfeeding rates (Blyth et al., 2002; Dennis & Faux, 1999; Sheehan et al., 2009).

9.2.2 The type of breastfeeding support mothers sought

This study also explored how breastfeeding peer supporters respond with informational and emotional support to queries about breastfeeding concerns on a SNS, and how these relationships are developed online. Although both trained peer breastfeeding counsellors and other mothers were members of these online communities, it was usually evident which responses were from the trained peer breastfeeding counsellors. This type of behaviour can be attributed to the fact that the ABA has a strict Code of Ethics that all members agree to abide by (Australian Breastfeeding Association, 2018c). There seemed to be a certain way of behaving that was deemed acceptable in these groups that indicates these women are seeking out communities of like-minded women. It was evident that members of these communities have learned to self-moderate their responses and this raises questions about the possible gatekeeper role the administrators of these groups may be playing.

Many of the examples presented in the findings were responses from trained peer breastfeeding counsellors and the examples demonstrate why breastfeeding peer support is a key intervention to assist in the improvement of breastfeeding rates (Thomson et al., 2015b; Thomson et al., 2011). In a metasynthesis of women's perceptions and experiences of breastfeeding support, Schmied et al. (2011) identified key ideas and concepts that were similar across 31 studies related to breastfeeding support. The study found that breastfeeding support occurs along a continuum from authentic presence at one end (perceived as effective support) to disconnected encounters at the other (perceived as ineffective support).

The researchers identified, second, a facilitative approach versus a reductionist approach as contrasting styles of support that women experienced as helpful or unhelpful. There are seven themes within the preferred authentic presence category: being there for me, empathetic approach, taking time touching base, providing affirmation, being responsive, sharing the experience, and having a relationship. In each of the examples of responses presented in the findings, there is evidence of these seven themes throughout. Interestingly, authentic presence in the online environment was very similar to that demonstrated in face-to-face interactions. Community

members are still able to walk alongside the mother and demonstrate empathy while making a connection with her. However, instead of a reassuring smile or touch, the online environment provides other tools that can be used in conjunction with the typed word such as emojis and memes, to help make that emotional connection.

Authentic presence is associated with a particular approach to providing support by Schmied et al. (2011) labelled as ‘facilitative’. It is defined as “an approach to health promotion, or helping, that enables people to draw on a range of information and experience and learn for themselves” (Schmied et al., 2011, p. 53). The facilitative style can be described as a learner-centred approach and comprises five themes: realistic information, accurate and sufficiently detailed information, encouragement for breastfeeding, encouraging dialogue, offering practical help and being proactive. Many of the examples presented in the findings demonstrate this facilitative approach, with the presentation of practical suggestions and informational support alongside the emotional support that is characteristic of the authentic presence approach. This facilitative style was most often seen demonstrated by trained ABA trained peer breastfeeding counsellors. In the ABA closed Facebook groups, there were no examples of disconnected encounters or the reductionist approach as reported in the metasynthesis (Schmied et al., 2011), which speaks to the moderated and controlled environment of these online communities and the ABA’s Code of Ethics.

9.2.3 Coping strategies

New motherhood is a time of increased stress and emotion with perinatal depression and anxiety being issues of global significance, as approximately 13 percent of postpartum women experience mental illness (World Health Organization, 2018). Any new mother can develop mental disorders, but poverty, migration, extreme stress, exposure to violence (domestic, sexual and gender-based), emergency and conflict situations, natural disasters, and low social support does increase the risk (World Health Organization, 2018). In some cases, lack of breastfeeding support can significantly add to the stress of new motherhood and stress is often cited as a common reason for premature weaning (Binns & Scott, 2002; Robert et al., 2014; M. Tarrant et al., 2010).

Stress and coping theory provides a framework that highlights the importance of two processes, appraisal and coping, as mediators of the ongoing relationship between the

person and the environment. Stress and coping theory is important to the stress process as it is lived in the ordinary events of daily life, major life events, and chronic stressful conditions that can last years (Folkman, 2013).

Generally speaking, humans use two major coping strategies: problem-focused and emotion-focused coping (O'Brien & DeLongis, 1996). Lazarus and Folkman (1984) have described problem-focused coping as involving efforts to modify the problem being faced and typically includes elements such as identifying the problem, finding and evaluating alternative courses of action, choosing the most appropriate solution, and taking actions (Weiten, Lloyd, & Dunn, 2003). Initially, the support seekers who are creating wall posts with their queries are identifying the question or problem that needs to be answered or solved. This is followed by informational responses provided as comments to the initial wall post by support providers who can assist the support seeker to actively understand and evaluate different courses of action. After discussing problems with support providers, support seekers then have the appropriate information about different possible solutions that may provide them with the confidence to make a decision and take action.

Emotion-focused coping is usually defined as the act of managing the emotional distress associated with the situation at hand (Lazarus & Folkman, 1984). The range of emotion-focused strategies is quite broad, and includes strategies such as denial, describing and venting emotions, positive relaying of events, and seeking out social support (J. P. Baker & Berenbaum, 2007). The aim of emotion-focused coping is to reduce emotional distress associated with a particular situation (Carver, Scheier, & Weintraub, 1989). Research indicates that people who obtain emotional support show less emotional distress (Alferi, Carver, Antoni, Weiss, & Duran, 2001; Krumholz et al., 1998; Kulik & Mahler, 1993).

However, it is sometimes difficult for people to accept emotional support, as it may not always arrive at the right time. It is common to receive unwanted advice, and this act of passively receiving emotional support from their social network may lead to the individual feeling overwhelmed by the level and nature of advice they receive (Taylor, 2003). In the case of participating in online SNSs such as Facebook, support seekers are actively seeking support from their virtual community, therefore increasing the chance that they will receive the right emotional support at the right time (Liang & Scammon, 2011). This concept of the 'right help at the right time' is

integral to successful breastfeeding support. In an Australian study of a ‘drop-in’ breastfeeding lounge facilitated by the ABA, Burns and Schmied (2017a) discovered components of the communication style used by volunteer peer supporters at this facility was in stark contrast to the majority of hospital-based interactions which emphasise novice-expert positioning (Burns, Fenwick, Sheehan, & Schmied, 2013; Burns et al., 2012; Dykes, 2006). Importantly, the model of care examined here facilitated a responsive service that provided the right support at the right time. One of the many benefits cited by the participants was the access to their breastfeeding community – exactly when and where they needed it. This immediacy was viewed as one of the key factors contributing to the success of the online community. The literature highlights the importance of immediate and early breastfeeding support and how it improves breastfeeding outcomes (Darmstadt et al., 2005).

These groups enable participants to utilise the platform to share information and experiences with each other and most importantly to exchange social support which is crucial in the transition to motherhood and breastfeeding success. Social support has been shown to be integral to breastfeeding behaviour (Keddem, Frasso, Dichter, & Hanlon, 2018). Women who plan to breastfeed perceive greater social support from their partner, compared to those who do not plan to breastfeed (K. M. Jones, Power, Queenan, & Schulkin, 2015; Kimani-Murage et al., 2015). As a consequence, women are more likely to stop breastfeeding in the absence of social support from their partner and their mother (A. Brown, 2014).

Participants described a variety of ways that they felt supported online. In particular, the group was considered a ‘brains trust’ and illustrates the potential for members to access a wealth of both factual and experiential information, advice and support (Coulson & Shaw, 2013). Indeed, there are several theoretical reasons as to why online support groups may help individuals cope better with their own situation. For example, Roter and Hall (1997) argue using their ‘patient-communication theory’ that access to information may lead to changes in task behaviour. Thus, access to information from members of an online support group may influence a new mother’s behaviour in relation to how she attempts to manage her breastfeeding experience. Furthermore, according to Bandura (1977), access to information may also help participants’ confidence or self-efficacy in their ability to manage their own problems or condition.

The results also demonstrate that members experience positive psychological outcomes. The members of these communities said that engaging with the Facebook group and connecting to other breastfeeding mothers benefited them in a number of important ways, such as increased confidence in their parenting decisions and philosophies (Bridges, 2016), which would be similar for those women accessing the ABA's face-to-face support groups. It appears that through posting information individuals derive a sense of purpose and provide both informational and emotional support to each other. Further, in reading the responses/comments of others, members were encouraged by the advice and support being offered which enhanced their sense of community during a period of their lives when new mothers can feel isolated. These sites appear to provide specific information directly to these individuals often in a more timely and accurate manner than other forms of online and face-to-face support (Bridges, 2016).

It appears that due to the nature of these online communities and the ABA's ethos of peer support and counselling based on the theory of conditional positive regard (Rogers, 1992), that the participants display a high level of empathy and emotional connection to group members (Bridges, 2016). Peer support provides opportunities for increased interaction with other mothers (Hoddinott et al., 2006; Meier et al., 2007; Nankunda et al., 2010; Scott & Mostyn, 2003), an opportunity to question (Martens, 2002; Rossman et al., 2011) and discuss their own personal infant feeding choices (Nankunda et al., 2010) – and women appreciate this process. The breastfeeding peer support model is effective as women accessing this type of support report overcoming their breastfeeding problems (Burns & Schmied, 2017b) and report improved mental health via increased self-esteem, confidence and well-being (Wade, Haining, & Day, 2009). Furthermore, breastfeeding mothers appreciate the emotional support and advocacy they gain from peer support (Hegney et al., 2008; Hoddinott et al., 2006; Nankunda et al., 2010; Scott & Mostyn, 2003).

However, the nature of this social support seems to be different from that experienced in traditional face-to-face parenting groups (Kruske, Schmied, & Cook, 2007; Strange, Bremner, Fisher, Howat, & Wood, 2016), whether they be hosted by the ABA or other organisations. The type of support that women were seeking was primarily informational, with additional emotional support provided in the form of comments and responses to comments with supportive language. As there were no

posts that were only emotional, Facebook group participation seems more functional as it provides information and confirms positions that the posters take and the views they want reinforced. These online communities do not seem to provide emotional support through relationality in the same way that a face-to-face support group does, as no other topics are raised outside of the context of the group (breastfeeding and parenting). It appears there are unwritten rules about what can and can't be discussed and it does not seem to be a safe forum for extreme or alternative views, so members learn quickly to manage their behaviours in respect to this invisible code of conduct.

This raises the question about whether or not these mothers are presenting themselves honestly or authentically and introduces the notion that perhaps they are 'saving face' because there is a culturally acceptable way that they feel they are expected to behave due to the ethos of the ABA and the way the closed Facebook groups are moderated. Therefore, like in many social contexts, these mothers may be acting as the social norms and rules dictate they should. Tardy's (2000) concepts of the frontstage, backstage and back-backstage of motherhood – modified from Goffman's (1959) 'regions' – may help explain how women's information and support seeking practices are affected by the cultural expectations associated with being a 'good mother' (Hays, 1996). In addition to managing cultural expectations, mothers are also required to adopt a highly reflexive, intentional and carefully researched approach to the role of motherhood (Song et al., 2012). SNSs can offer women a space where they can test out or legitimise their new identity as a mother (Johnson, 2015).

9.2.4 Community

Participants reported a sense of community and connectedness as a result of the peer support found within the ABA's closed Facebook groups. The ABA's 'Vision and Mission' discusses the importance of the Association's aim to support, educate and advocate for a breastfeeding inclusive society (Australian Breastfeeding Association, 2018e).

These findings are supported by the research that explores women's experiences of breastfeeding peer support (Thomson et al., 2011). Women value peer supporters as mothers with similar experiences who can relate to their own situation through a shared language (Dykes, 2005; Hegney et al., 2008; Hoddinott et al., 2006; Meier et al., 2007; Nankunda et al., 2010; Rossman et al., 2011; Scott & Mostyn, 2003).

Women also benefit from the increased social interaction that peer support provides (Hoddinott et al., 2006; Meier et al., 2007; Nankunda et al., 2010), the opportunities to question (Martens, 2002; Rossman et al., 2011) and discuss personal choices in relation to infant feeding (Nankunda et al., 2010). Women also appreciate the emotional warmth, supportive social interactions and advocacy that peer support provides (Hegney et al., 2008; Hoddinott et al., 2006; Nankunda et al., 2010; Scott & Mostyn, 2003; Thomson et al., 2015a).

Mothers involved in this study described a feeling of privacy and safety as a result of the closed nature of these groups. One of the many criticisms of online communities is their lack of privacy. A digital message can remain as part of a system for an undefined and undisclosed period of time. This makes the management of privacy, both for the individual and for organisations, extremely complex (Dwyer, Hiltz, & Passerini, 2007; D. Garcia, Goel, Agrawal, & Kumaraguru, 2018). Dwyer et al., (2007) found that a person's concern for privacy of their social interaction record was a factor in whether they use these SNSs. However, results showed that online relationships can still develop in sites where perceived trust is low and protection of privacy is minimal (Dwyer et al., 2007). Yet despite this perception of privacy, members of these closed Facebook groups managed themselves in a certain way and put on a particular moral identity. Moral identity is the degree to which being a moral person is important to a person's identity (Hardy & Carlo, 2011) and this relates back to Goffman's (1959) 'regions' and Tardy's (2000) suggestion that there are different 'regions' that define what is appropriate for mothers to talk about with one another (Johnson, 2015). There are numerous intimacy levels that women calculate in different social networks and also assist in the definition of good and bad mothering, and the internet is an important place where women learn the ideology and expectations around motherhood (Tardy, 2000). Consequently, mothers report that online communities are a safe space where they can 'test' their new identity as a mother (Johnson, 2015). Research by Marshall et al. (2007) illustrates the dynamic between breastfeeding, being a 'good' mother and the merging multiple identities that new mothers embrace as they enter motherhood. In managing the balance between a healthy, happy baby and the demands of 'real life', women are constantly negotiating the moral minefield of 'good mothering' and its influences, including "health

professionals, their social networks and the wider social and structural context of their lives” (p. 2147).

According to participants, through engaging with the group and connecting to other breastfeeding mothers, they were benefiting in a number of important ways, such as increased confidence in their parenting decisions and philosophies (Johnson, 2015; Suarez, Rodrigo, & Muneton, 2016). This is consistent with recent developments within the online support group literature that considers the active online processes and subsequent outcomes from an empowerment perspective. Empowerment describes how individuals, organisations and communities gain control and mastery over issues that concern them. In the context of breastfeeding success, empowerment plays an important role (Pugh & Milligan, 1998).

The act of offering support to others is an important mechanism for helping sustain a healthy and productive online community and this aspect was discussed by many participants, particularly the more experienced members. Lampel and Bhalla (2007) have argued that more ‘experienced’ members may feel especially motivated by the need to connect to and maintain the community, as opposed to new group members who may derive benefit by sharing their own experiences. For this cohort, the findings describe a range of altruistic motives that appear to underpin the decision to become a member of these SNSs and to support the group and its members. It was common for participants to personally value the opportunity to both offer support to others in addition to receiving it. Furthermore, for some, their role allowed them a means through which they could ‘give back’ to the group. The sense of ‘giving back’ or ‘paying it forward’ was a recurrent theme throughout. Many participants described the sense of accomplishment and satisfaction as a member of their online community that came with the ability to help other mothers (as they had been helped themselves). This is a common motivation cited by volunteer breastfeeding peer-supporters (Dennis, Hodnett, Gallop, & Chalmers, 2002).

The literature widely acknowledges that the opportunity to offer as well as receive support is a critical therapeutic process that is integral to support groups (Pagano, Post, & Johnson, 2011). Known as the ‘helper-therapy principle’ (Reissman, 1965), this phenomenon describes how a support group participant feels an increased sense of self-efficacy and self-esteem through the process of helping others. Moreover, this type of altruistic behaviour has also been proven to help individuals limit the way

they may be cogitating about their own problems (Shaw, Yeob Han, Hawkins, McTavish, & Gustafson, 2008). The participant descriptions in this study are consistent with a growing body of literature which supports the notion of the ‘helper-therapy principle’ in the context of health-related online support groups (Lepore et al., 2014; Shaw et al., 2008; Winefield, 2006).

9.2.5 Complementary

Another sub-theme discovered is that of the complementary nature of support that the Facebook groups provided. Much of the literature exploring SNSs looks exclusively at the SNS as a stand-alone intervention, and not in conjunction with other resources and forms of breastfeeding support. Indeed, the results of this study have highlighted how the online community can complement the face-to-face support network without completely replacing it. The literature supports the benefits of in-person peer support for breastfeeding mothers (Hoddinott et al., 2006; Martens, 2002; McFadden et al., 2017; Meier et al., 2007; Nankunda et al., 2010; Rossman et al., 2011; Thomson et al., 2011). However, exploring the ways SNS users incorporate their online interactions with face-to-face support services, and the outcomes of these practices is important because it has the potential to shed light on a recurring debate within the SNS effects literature: whether participation in SNSs augments or displaces social relationships. For instance, Bessiere et al. (2008) found that using the internet to ‘meet new people’ was associated with higher depression scores seven months later; they speculated that these new connections constituted weak ties and that interactions with people met online replaced time spent with strong ties. However, many participants of this study appeared to incorporate their SNS life with traditional face-to-face interactions – the online complemented the offline. This complementary nature was demonstrated in many ways, including the fact that often members of these closed Facebook groups would use these SNSs as a way of organising play dates and social events in real life with other online community members.

9.3 Implications and impacts

The ABA has created a series of online communities that are generally considered a safe environment, where participants were all members of a specific and like-minded group of women. This raises questions about how the ABA can change or address this phenomenon to attract other mothers who may not initially share the same views as

the mothers in these online communities, or perhaps mothers who have traditionally sat outside the norm such as disabled mothers and same-sex mothers. It would be interesting to research the effect that the attitudes and behaviour of the gatekeepers have on the culture of these online communities.

The implications of this research could also be extrapolated beyond mothering and breastfeeding issues, as SNSs could be considered ideal spaces for communication and support amongst particular groups of healthcare consumers who might usually be unable to access resources like this type of support and knowledge. These resources can address social concerns, in addition to medical concerns and feature medical advice, practical knowledge, personal experience and peer support (Johnson, 2015).

These closed Facebook groups are being used to develop relationships that focus on meeting the informational and emotional support needs of their external and internal stakeholders. By providing a two-way symmetric dialogue through social media, that does not primarily focus on promoting the ABA and breastfeeding but rather providing support to its stakeholders, the ABA is able to provide an additional form of support that serves several important purposes. This study provides a lesson in opportunities that can be applied to any organisation aimed at providing not only peer support to mothers but peer support in general. Indeed, closed Facebook groups like those engaged by the ABA have led to public relations practice that has become more global, strategic, two-way and interactive, symmetrical or dialogical, and socially responsible (Grunig, 2009).

In addition to winning a national research award for the publication titled *The faces of breastfeeding support: Experiences of mothers seeking breastfeeding support online*, this study has had a significant impact on social media policies and procedures within the ABA. At a time of declining membership, the Association's senior management team have updated the social media policy in light of this important research and made the decision to encourage membership of closed local Facebook groups to financial members of the ABA only. This strategy is aimed at increasing ABA financial member numbers, but not necessarily supporting all breastfeeding women. To counteract this, the Association is in the planning stages of launching a national closed Facebook group where mothers can gain access to breastfeeding information and support, regardless of whether or not they are financial members of the

organisation. Other aspects of the Association's social media policy have also been updated and changed as a direct result of this research.

As a result of engaging with this research, a colleague has written a Masters dissertation titled *Facebook and relationship building in a registered charity: An exploration of Facebook communication to enhance real world relationships with the Australian Breastfeeding Association (ABA)* (V. Campbell, 2018). This study engaged a similar online research method to explore what the ABA can do through their Facebook communication to build stronger online relationships that in turn motivate followers to develop real world participation in the Association.

Finally, because of the publications resulting from this research study, the author has had the opportunity to present the results of this research at several international conferences in Australia, the United States and Europe. She was also recently invited to present at the national Australian Multiple Births Association conference in Sydney in May 2018, as they were keen to learn how their organisation can engage SNSs such as Facebook to support their members.

9.4 Strengths and limitations

The use of netnography is a strength of this study, as full immersion into Facebook and the use of all of the tools available to the user provided a deeper layer of understanding than observation alone. Although observations were routed in one physical location (ie at a computer), the researcher experienced different tools within Facebook with which participants would also typically be engaging on a regular basis. Instead of a physical place, the field site was an online Facebook group – a virtual community that enabled 24/7 access to participants. The nature of this field site meant that the participants had agency over taking part of the study, as they could remove the researcher from the group at any time throughout the data collection period.

Rather than watching people face-to-face in their physical environment, participant observation involved reading text and images on the computer screen. This provided a more authentic experience as it enabled the researcher to observe the participants' genuine online behaviour from the perspective of another member of the online community. The researcher was able to observe the process of interaction, even though not in the same room – just as another member of the online community would observe and participate in those interactions. Another substantial advantage

was that the data collection could operate in both synchronous and asynchronous modes, just as the online community would usually function.

The synchronous and asynchronous modes of Facebook enabled greater ease in taking field notes as this process did not provide the same level of disruption that would occur in the traditional field site. The field notes could be taken both during and after interactions and took the form of not only written notes, but screenshots and other data collected by Facebook that acted to enrich the view of the field. The hybrid of digital and analogue note taking demonstrate how the digital supplemented and enriched the more traditional ethnographic practices.

When using inbuilt functions such as 'Messenger' and 'Events' to carry out interviews and focus groups, the benefit was ease of access for new mothers that suit their lifestyle. It also enabled the same freedoms for the researcher and ensured accuracy in transcribing interviews as these could be copied and pasted directly from Facebook. In comparison, traditional methods can be time consuming and have a small degree of error. Fully online ethnography enabled the researcher to access a whole cohort of participants who otherwise may not have been available.

However, this model is not without limitations. Answers were less likely to be spontaneous and participants had more opportunity for self-censorship. In addition, there were many details that were unavailable to the researcher given that interviews were not conducted face-to-face such as body language, tone-of-voice, facial expressions, and so on.

In addition, since the data was collected in 2013, there have been various revelations about Facebook and how others have misused its data. If conducted today, the participants may not have been so willing to take part due to insecurities relating to their privacy and safety of their data.

Another limitation of this study is that there were no comparisons of the nature of participation of members of online groups with those in face-to-face groups and this would be an interesting line of enquiry for future study. These findings could also be further expanded to other social support groups so that the potential of Facebook as a platform for social support groups can be further quantified and then strategies developed to enhance the effectiveness of such groups in building resilience within communities.

This study was conducted on SNSs where the majority of members are committed to and invested in breastfeeding. This community of like-minded women is a limitation due to the homogeneity of the sample, which means this type of support might not apply to all mothers who need to access breastfeeding support. As the sites were hosted and moderated by trained volunteers of the ABA who are required to abide by a Code of Ethics, negative interactions rarely occurred, compared to other SNSs aimed at mothering and breastfeeding. In addition, although it was found that the women in the study found the online environment supportive, the research did not provide any information about whether being a member and engaging in the SNS extended or supported members to continue breastfeeding.

9.5 Conclusion

This study has presented insights into the experiences of women who seek breastfeeding support online using closed Facebook groups sanctioned by the ABA. It analysed 15 closed Facebook groups established by the Australian Breastfeeding Association to explore the specific breastfeeding topics that women are investigating via SNSs such as Facebook. Of the 72 queries that were specific breastfeeding questions, 55 (76 percent) were categorised into these three topic areas of breastfeeding management, breastfeeding and health, and breastfeeding and work, all of which are themes universally recognised as some of the most common reasons for the cessation of breastfeeding, and important areas for future study.

Secondly, the study explored how breastfeeding peer supporters respond with emotional support to queries about breastfeeding concerns on a SNS. The research found that these types of SNSs facilitated by trained peer breastfeeding counsellors are more likely to facilitate an authentic presence and facilitative style, both recognised as the most effective components of breastfeeding support.

Overwhelmingly, breastfeeding peer support is the key purpose of these online groups. Historically, women would find this support and knowledge within their own family unit. In more recent history, mothers' groups were established by the health care sector to fill the gap and provide this vital support to women. Today, we have witnessed a move to online communities in an effort to provide this information and support in a more immediate way to meet the needs of the modern mother.

Based on the observations throughout this study, it has become evident that the ABA is providing a meaningful and valuable service to its members by supporting the use of SNSs in the form of closed Facebook groups for breastfeeding support and information. The SNSs observed in this study are evidence that moderated OSGs can be successfully developed and facilitated using SNSs like Facebook. Furthermore, participation in such groups can be empowering for both new and more experienced mothers.

Participants described an experience that reflected the core vision and mission of the ABA and provided a complementary and ‘value-added’ service to the face-to-face, telephone and email services already provided by the Association to support breastfeeding. What could possibly be perceived as a ‘threat’ to or ‘replacement’ for these established services, appears to be a valuable tool that enhances and complements these services, while staying in touch with new technologies and the next generation of mothers.

In conclusion, the overarching theme of support and the four sub-themes identified and explored in this study consolidate to tell an important story about the type of support the ABA is providing for breastfeeding mothers via the online community it has created with its SNSs via closed Facebook groups – a community that is complementary to its pre-existing services that have been developed to provide immediate information and support for breastfeeding mothers around Australia.

REFERENCES

- Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J., & Huylenbroeck, G. (2011). The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *British Food Journal*, 113(11), 1353 - 1378.
- Ajzen, I. (1988). *Attitudes, Personality and Behaviour*. Milton Keynes: Open University Press.
- Alferi, S. M., Carver, C. S., Antoni, M. H., Weiss, S., & Duran, R. E. (2001). An exploratory study of social support, distress, and life disruption among low-income hispanic women under treatment for early stage breast cancer. *Health Psychology*, 20(1), 41 - 46.
- Alianmoghaddam, N., Phibbs, S., & Benn, C. (2018). Reasons for stopping exclusive breastfeeding between three and six months: A qualitative study. *Journal of Pediatric Nursing*, 39, 37 - 43.
- Amir, L. H., & Donath, S. M. (2008). Socioeconomic status and rates of breastfeeding in Australia: evidence from three recent national health surveys. *MJA*, 189(5), 254 - 256.
- Arendell, T. (2000). Conceiving and investigating motherhood: the decade's scholarship. *Journal of Marriage and the Family*, 62(4), 1192-1207.
- Aronson, J. (1994). A pragmatic view of thematic analysis. *Qualitative Report*, 2(1).
- Arora, S., McJunkin, C., Wehrer, J., & Kuhn, P. (2000). Major factors influencing breastfeeding rates: Mother's perception of father's attitude and milk supply. *Pediatrics*, 106(5), E67.
- Atkinson, P., Delamont, S., Coffey, A., Lofland, J., & Lofland, L. (2007). *Handbook of ethnography*. London: Sage.
- Australian Breastfeeding Association. (2016). About the Australian Breastfeeding Association. Retrieved from <https://www.breastfeeding.asn.au/aboutaba>
- Australian Breastfeeding Association. (2018a). Retrieved from www.breastfeeding.asn.au
- Australian Breastfeeding Association. (2018b). Breastfeeding Confidence. Retrieved from [https://www.breastfeeding.asn.au/sites/default/files/civicrm/persist/contribute/files/BF Confidence-eBook.pdf](https://www.breastfeeding.asn.au/sites/default/files/civicrm/persist/contribute/files/BF%20Confidence-eBook.pdf)

- Australian Breastfeeding Association. (2018c). Code of Ethics. Retrieved from <https://www.breastfeeding.asn.au/policy/code-ethics>
- Australian Breastfeeding Association. (2018d). Health outcomes associated with infant feeding. Retrieved from <https://www.breastfeeding.asn.au/bfinfo/health-outcomes-associated-infant-feeding>
- Australian Breastfeeding Association. (2018e). Vision and Mission. Retrieved from <https://www.breastfeeding.asn.au/aboutaba/purpose>
- Australian Bureau of Statistics. (2001). *Breastfeeding in Australia, 2001*.
- Australian Bureau of Statistics. (2018). 8146.0 - Household Use of Information Technology, Australia, 2016-17 Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>
- Australian Government Department of Health. (2009, 26 May 2015). Australian National Breastfeeding Strategy 2010 - 2015. Retrieved from <http://www.health.gov.au/internet/main/publishing.nsf/content/aust-breastfeeding-strategy-2010-2015>
- Australian Government Department of Health. (2017). Australian Breastfeeding Association. Retrieved from <https://www.healthdirect.gov.au/partners/australian-breastfeeding-association>
- Australian Government Department of Health. (2018). Breastfeeding: The Australian Government is committed to protecting, promoting, supporting and monitoring breastfeeding throughout Australia. Retrieved from <http://www.health.gov.au/breastfeeding>
- Australian Institute of Family Studies. (2005). *The longitudinal study of Australian children 2004 annual report*. Retrieved from Melbourne:
- Australian Institute of Health and Welfare. (2011). 2010 Australian National Infant Feeding Survey: Indicator Results. Retrieved from <http://www.aihw.gov.au/publication-detail/?id=10737420927>
- Avis, M. (2005). Is there an epistemology for qualitative research. In I. Holloway (Ed.), *Qualitative Research in Health Care* (pp. 3 - 16). London: McGraw-Hill Education.
- Baker, B., & Yang, I. (2018). Social media as social support in pregnancy and postpartum. *Sexual & Reproductive Healthcare*, 17, 31 - 34.

- Baker, J. P., & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion*, 21(1), 95 - 118.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bargh, J. A., & McKenna, K. Y. (2004). The internet and social life. *Annual Review of Psychology*, 55, 573.
- Bartholomew, M. K., Schoppe-Sullivan, S. J., Glassman, M., Kamp Dush, C. M., & Sullivan, J. M. (2012). New Parents' Facebook Use at the Transition to Parenthood. *Family Relations*, 61(3), 455-469.
- Bartick, M., & Reinhold, A. (2010). The burden of suboptimal breastfeeding in the United States: A pediatric cost analysis. *Pediatrics*, 125(5), e1048.
- Bartlett, A. (2002). Scandalous practices and political performances: Breastfeeding in the city. *Journal of Media & Cultural Studies*, 16(1), 111-121.
- Bartlett, A. (2005). Maternal sexuality and breastfeeding. *Sex Education*, 5(1), 67 - 77.
- Baxter, J. (2006). Women's experience of infant feeding following birth by caesarean section. *British Journal of Midwifery*, 14(5), 290 - 295.
- Baxter, J. (2008). *Timing of mothers' return to work after childbearing: Variations by job characteristics and leave use*. Retrieved from Melbourne: <http://www.aifs.gov.au/institute/pubs/rp42/rp42.pdf>
- Baxter, J., Cooklin, A. R., & Smith, J. (2009). Which mothers wean their babies prematurely from full breastfeeding? An Australian cohort study. *Acta Paediatrica*, 98(8), 1274 - 1277.
- Baym, N. K. (1995). The emergence of community in computer-mediated communication. In S. G. Jones (Ed.), *Cybersociety* (pp. 138 - 163). Thousand Oaks, CA: Sage.
- Baym, N. K. (1999). *Tune in, Log on: Soaps, fandom and, online community*. Thousand Oaks, CA: Sage.
- Beaulieu, A. (2004). Mediating ethnography: Objectivity and the making of ethnographies of the Internet. *Social Epistemology*, 18(2), 139-163.
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219 - 234.

- Berman, L., & Moss, R. L. (2011). Necrotizing enterocolitis: an update. *Seminars in Fetal and Neonatal Medicine*, 16(3), 145 - 150.
- Berridge, K., McFadden, K., Abaymoi, J., & Topping, D. (2005). View of breastfeeding difficulties among drop-in clinic attendees. *Maternal & Child Nutrition*, 1(4), 250 - 262.
- Bessiere, K., Kiesler, S., Kraut, R., & Boneva, B. (2008). Effects of Internet use and social resources on changes in depression. *Information, Communication and Society*, 11(1), 47-70.
- Binns, C. W., & Scott, J. A. (2002). Breastfeeding: reasons for starting, reasons for stopping and problems along the way. *Breastfeeding Review*, 10(2), 13-19.
- Blair, P. S., Sidebotham, P., Pease, A., & Fleming, P. J. (2014). Bed-sharing in the absence of hazardous circumstances: is there a risk of sudden infant death syndrome? An analysis from two case-control studies conducted in the UK. *PloS one*, 9(9), e107799.
- Blyth, R., Creedy, D. K., Dennis, C. L., Moyle, W., Pratt, C. B., DeVries, S. M., & Healy, G. N. (2004). Breastfeeding duration in an Australian population: The influence of modifiable antenatal factors. *Journal of Human Lactation*, 20(1), 30-38.
- Blyth, R., Creedy, D. K., Dennis, C. L., Moyle, W., Pratt, J., & DeVries, S. M. (2002). Effect of maternal confidence on breastfeeding duration: an application of breastfeeding self-efficacy theory. *Birth*, 29(4), 278-284.
- Boelstorff, T., Nardi, B., Pearce, C., & Taylor, T. L. (2012). *Ethnography and virtual worlds: A handbook of method*. Princeton: Princeton University Press.
- Boneva, B., & Kraut, R. (2002). Email, gender, and personal relationships. In B. Wellman & C. Haythornthwaite (Eds.), *The internet in everyday life*. Malden, MA: Blackwell Publishers.
- Bowatte, G., Tham, R., Allen, K. J., Tan, D. J., Lau, M. X. Z., Dai, X., & Lodge, C. J. (2015). Breastfeeding and childhood acute otitis media: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 85 - 95.
- Boyd, D. M., & Ellison, N. B. (2010). Social network sites: Definition, history and scholarship. *Engineering Management Review*, 38(3), 16-31.
- Boyer, K. (2012). Affect, corporeality and the limits of belonging: Breastfeeding in public in the contemporary UK. *Health & Place*, 18(3), 552 - 560.

- Braithwaite, D. O., Waldron, V. R., & Finn, J. (1999). Communication of social support in computer-mediated groups for people with disabilities. *Health Communication, 11*(2), 123-151.
- Bramhagen, A., Axelsson, I., & Hallstrom, I. (2006). Mothers' experiences of feeding situations: An interview study. *Journal of Clinical Nursing, 15*(1), 29 - 34.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.
- Bridges, N. (2016). The Faces of Breastfeeding Support: Experiences of mothers seeking breastfeeding support online. *Breastfeeding Review, 24*(1), 11-20.
- Bridges, N., Howell, G. V. J., & Schmied, V. (2018). Breastfeeding peer support on social networking sites. *Breastfeeding Review, 26*(2), 17 - 27.
- Britton, C., McCormick, F. M., Renfrew, M., Wade, A., & King, S. E. (2009). Support for breastfeeding mothers. *Cochrane Database Systematic Review, 1*(1).
- Britton, J., & Britton, H. (2008). Maternal self-concept and breastfeeding. *Journal of Human Lactation, 24*(4), 431-438.
- Brodribb, W. (2004). *Breastfeeding Management*. East Malvern: Australian Breastfeeding Association.
- Brown, A. (2014). Maternal trait personality and breastfeeding duration: The importance of confidence and social support. *Journal of Advanced Nursing, 70*(3), 587 - 598.
- Brown, J., & Peuchaud, S. R. (2008). Media and breastfeeding: Friend or foe? *International Breastfeeding Journal, 3*(15), 1 - 3.
- Bruckman, A. (2006). Teaching students to study online communities ethically. *Journal of Information Ethics*(Fall), 82-98.
- Burns, E., Fenwick, J., Sheehan, A., & Schmied, V. (2013). Mining for liquid gold: Midwifery language and practices associated with early breastfeeding support. *Maternal & Child Nutrition, 9*(1), 57 - 73.
- Burns, E., & Schmied, V. (2017a). "The right help at the right time": Positive constructions of peer and professional support for breastfeeding. *Women and Birth: Journal of the Australian College of Midwives, 30*(5), 389 - 397.

- Burns, E., & Schmied, V. (2017b). "The right help at the right time": Positive constructions of peer and professional support for breastfeeding. *Women and Birth*, 30(5), 389 - 397.
- Burns, E., Schmied, V., Fenwick, J., & Sheehan, A. (2012). Liquid gold from the milk bar: Constructions of breastmilk and breastfeeding women in the language and practices of midwives. *Social Science and Medicine*, 75(10), 1737- 1745.
- Burns, E., Schmied, V., Sheehan, A., & Fenwick, J. (2010). A meta-ethnographic synthesis of women's experience of breastfeeding. *Maternal & Child Nutrition*, 6(3), 201 - 219.
- Campbell, K., Coulson, N. S., & Buchanan, H. (2013). Empowering processes within prostate cancer online support groups. *International Journal of Web-Based Communities*, 9(1), 51-66.
- Campbell, V. (2018). *Facebook and relationship building in a registered charity: An exploration of Facebook communication to enhance real world relationships with the Australian Breastfeeding Association (ABA)*. (Master of Communication Dissertation), Charles Sturt University, Bathurst.
- Carter, P. (1995). *Feminism, breasts and breastfeeding*. Basingstoke: Macmillan Press.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267 - 283.
- Cattaneo, A., Burmaz, T., Arendt, M., Nilsson, I., Mikiel-Kostyra, K., Kondrate, I., . . . Fallon, M. (2010). Protection, promotion and support of breastfeeding in Europe: Progress from 2002 to 2007. *Public Health Nutrition*, 13(6), 751 - 759.
- Centre for Epidemiology and Evidence. (2017). *NSW Mothers and Babies 2016*. Retrieved from North Sydney:
<http://www.health.nsw.gov.au/hsnsw/Publications/mothers-and-babies-2016.pdf>
- Chambliss, D. F., & Schutt, R. K. (2013). *Making sense of the social world: Methods of investigation* (4th ed.). Canada: Sage Publications.
- Chan, M. Y., Ip, W. Y., & Choi, K. C. (2016). The effect of a self-efficacy-based educational programme on maternal breast feeding self-efficacy, breast

- feeding duration and exclusive breast feeding rates: A longitudinal study
Midwifery, 36, 92 - 98.
- Chowdhury, R., Sinha, B., Sankar, M. J., Taneja, S., Bhandari, N., Rollins, N., . . .
Martines, J. (2015). Breastfeeding and maternal health outcomes: a systematic
review and meta-analysis. *Acta Paediatrica*, 104(S467), 96 - 113.
- Clarke, V., & Braun, V. (2016). Thematic Analysis. In E. Lyons & A. Coyle (Eds.),
Analysing Qualitative Data in Psychology (2nd ed., pp. 84 - 103). London:
Sage.
- Correll, S. (1995). The ethnography of an electronic bar: The lesbian cafe. *Journal of
Contemporary Ethnography*, 24(3), 270 - 298.
- Coulson, N. S., & Shaw, R. L. (2013). Nurturing health-related online support groups:
Exploring the experiences of patient moderators. *Computers in Human
Behavior*, 29(4), 1695-1701.
- Cowie, G. A. (2009). *Breastfeeding and motherhood: Peer support in cyberspace*.
(Master of Public Health Masters), La Trobe, Melbourne.
- Cowie, G. A., Hill, S., & Robinson, P. (2011). Using an online service for
breastfeeding support: What mothers want to discuss. *Health Promotion
Journal of Australia*, 22(2), 113 - 118.
- Cowling, D. (2018). Social media statistics Australia - May 2018. Retrieved from
<https://www.socialmedianews.com.au/social-media-statistics-australia-may-2018/>
- Darmstadt, G. L., Bhutta, Z. A., Cousens, S., Adam, T., Walker, N., & de Bernis, L.
(2005). Lancet neonatal survival steering team evidence-based, cost-effective
interventions: How many newborn babies can we save? *Lancet*, 365(9463),
977-988.
- Day, J. (Ed.) (2006). *Breastfeeding...Naturally* (2 ed.). Melbourne: Australian
Breastfeeding Association.
- Deakin, H., & Wakefield, K. (2014). Skype interviewing: Reflections of two PhD
researchers. *Qualitative Research*, 14(5), 603 - 616.
- Delamont, S. (2004). Ethnography and participant observation. In C. Seale, G. Gobo,
& J. Gubrium (Eds.), *Qualitative research practices*. London: Sage.
- Demirtas, B. (2012). Strategies to support breastfeeding: A review. *International
Nursing Review*, 59(4), 474-481.

- Dennis, C. L. (1999). Theoretical underpinnings of breastfeeding confidence: A self-efficacy framework. *Journal of Human Lactation*, 15, 195-201.
- Dennis, C. L., & Faux, S. (1999). Development and psychometric testing of the breastfeeding self-efficacy scale. *Research in Nursing and Health*, 22, 399-409.
- Dennis, C. L., Hodnett, E., Gallop, R., & Chalmers, B. (2002). The effect of peer support on breastfeeding duration among primiparous women: a randomized controlled trial. *CMAJ*, 8(166), 21-28.
- Di Maggio, P., Hargittai, E., Neumann, W. R., & Robinson, J. P. (2001). Social implications of the internet. *Annual Review of Sociology*, 27(1), 307-336.
- Donath, S. M., & Amir, L. H. (2000). Rates of breastfeeding in Australia by State and socio-economic status: Evidence from the 1995 National Health Survey. *Journal of Pediatrics and Child Health*, 36, 164-168.
- Dornan, B. A., & Oermann, M. H. (2006). Evaluation of breastfeeding web sites for patient education. *American Journal of Maternal Child Nursing*, 31(1), 18-23.
- Douglas, P. S., & Hill, P. S. (2013). A neurobiological model for cry-fuss problems in the first three to four months of life. *Medical Hypotheses*, 81(5), 816 - 822.
- Drentea, P., & Moren-Cross, J. L. (2005). Social capital and social support on the web: the case of an internet mother site. *Sociology of Health & Illness*, 27(7), 920-943.
- Duvall, S. (2015). Not "Simply the Breast". *Feminist Media Studies*, 15(2), 324 - 340.
- Dwyer, C., Hiltz, S., & Passerini, K. (2007). *Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace*. Paper presented at the AMCIS 2007 Proceedings.
- Dykes, F. (2003). *Infant Feeding Initiative: A report evaluating the breastfeeding practice projects 1999-2002*. Retrieved from London:
- Dykes, F. (2005). Government funded breastfeeding peer support projects: Implications for practice. *Maternal & Child Nutrition*, 1(1), 21-31.
- Dykes, F. (2006). *Breastfeeding in hospital: mothers, midwives and the production line*. London: Routledge.
- Dykes, F., & Flacking, R. (2010). Encouraging breastfeeding: a relational perspective. *Early Hum Dev*, 86(11), 733 - 736.

- Dykes, F., & Flacking, R. (2016a). *Ethnographic Research in Maternal and Child Health* (F. Dykes & R. Flacking Eds. 1st ed.). New York: Routledge.
- Dykes, F., & Flacking, R. (2016b). Introducing the theory and practice of ethnography. In F. Dykes & R. Flacking (Eds.), *Ethnographic research in maternal and child health* (1 ed.). New York: Routledge.
- Dykes, F., Hall Moran, V., Burt, S., & Edwards, J. (2003). Adolescent Mothers and Breastfeeding: Experiences and Support Needs - An Exploratory Study. *Journal of Human Lactation*, 19(4), 391 - 401.
- Dyson, L., Renfrew, M., McFadden, A., McCormick, F., Herbert, G., & Thomas, J. (2006). *Effective action briefing on the initiation and duration of breastfeeding*. Retrieved from London:
- Edwards, R. A., Colchamiro, R., Tolan, E., Browne, S., Foley, M., Jenkins, L., . . . Forgit, J. (2015). Online continuing education for expanding clinicians' roles in breastfeeding support. *Journal of Human Lactation*, 31(4), 582 - 586.
- Ellison, N. B. (2007). Social network sites: Definition, history and scholarship. *Journal of Computer-Mediated Communication*, 13, 210-230.
- Ertem, I. O., Votto, N., & Leventhal, J. M. (2001). The timing and predictors of the early termination of breastfeeding. *J Pediatr*, 107(3), 543-548.
- Facebook. (2018). What are the privacy settings for groups? Retrieved from https://www.facebook.com/help/220336891328465?helpref=about_content
- Finlay, L., & Gough, B. (2008). *Reflexivity: A practical guide for researchers in health and social sciences*: John Wiley & Sons.
- Folkman, S. (2013). Stress: Appraisal and Coping. In M. D. Gellman & J. D. Turner (Eds.), *Encyclopedia of Behavioral Medicine*. New York: Springer.
- Forster, D. A., McLachlan, H. L., Rayner, J., Yelland, J., Gold, L., & Rayner, S. (2008). The early postnatal period: exploring women's views, expectations and experiences of care using focus groups in Victoria, Australia. *BMC Pregnancy and Childbirth*, 22(8), 27 - 32.
- Foss, K. A., & Southwell, B. G. (2006). Infant feeding and the media: the relationship between *Parents' Magazine* content and breastfeeding, 1972 - 2000. *International Breastfeeding Journal*, 1(10).

- Fox, F. E., Morris, M., & Rumsey, N. (2007). Doing synchronous online focus groups with young people: Methodological reflections. *Qualitative Health Research*, 17(4), 539 - 547.
- Frota, M. A., Lopes, M. F., Lima, K. F., Sales, C. D. O. C. B., & da Silva, C. A. B. (2016). Interfaces of the discontinuation of breastfeeding. *Acta Scientiarum. Health Sciences*, 38(1), 33.
- Furber, C. M., & Thomson, A. M. (2008a). Breastfeeding practice in the UK: Midwives' perspectives. *Maternal & Child Nutrition*, 4(1), 44 - 54.
- Furber, C. M., & Thomson, A. M. (2008b). The emotions of integrating breastfeeding knowledge into practice for English midwives: a qualitative study. *International Journal of Nursing Studies*, 45(2), 286 - 297.
- Garcia, A. C., Standlee, A. I., Beckhoff, J., & Cui, Y. (2009). Ethnographic Approaches to the Internet and Computer-Mediated Communication. *Journal of Contemporary Ethnography*, 38(52), 52-84.
- Garcia, D., Goel, M., Agrawal, A. K., & Kumaraguru, P. (2018). Collectice aspects of privacy in the Twitter social network. *EPJ Data Science*, 7(3), 1 - 13.
- Gearhart, S., & Dinkel, D. (2016). Mother knows breast: A content analysis of breastfeeding in television network news. *Health Communication*, 31(7), 884 - 891.
- Gerhardsson, E., Hildingsson, I., Mattsson, E., & Funkquist, E. (2018). Prospective questionnaire study showed that higher self - efficacy predicted longer exclusive breastfeeding by the mothers of late preterm infants. *Acta Paediatrica*, 1 - 7.
- Gibbons, M. C., Fleisher, L., Slamon, R. E., Bass, S., Kandadai, V., & Beck, J. R. (2011). Exploring the potential of Web 2.0 to address health disparities. *Journal of Health Communication*, 16(sup1), 77-89.
- Gibson, L., & Hanson, V. L. (2013). *Digital motherhood: How does technology help new mothers?* Paper presented at the SIGCHI Conference on Human Factors in Computing Systems.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York: Anchor Books for Doubleday.
- Graffy, J., & Taylor, J. (2005). What information, advice, and support do women want with breastfeeding? *Birth*, 32(3), 179 - 186.

- Gribble, K. (2008). Long-term breastfeeding: changing attitudes and overcoming challenges. *Breastfeeding Review*, 16(1), 5-15.
- Grunig, J. E. (2009). Paradigms of global public relations in an age of digitalisation. *PRism*, 6(2), 1 - 19.
- Guttman, N., & Zimmerman, D. (2000). Low income mothers' views on breastfeeding. *Social Science and Medicine*, 50(10), 1457 - 1473.
- Haberstroh, S., & Moyer, M. (2012). Exploring an online self-injury support group: Perspectives from group members. *The Journal for Specialists in Group Work*, 37(2), 113 - 132.
- Hailes, J. F., & Wellard, S. J. (2000). Support for breastfeeding in the first post-partum month: Perceptions of breastfeeding women. *Breastfeeding Review*, 8(3), 5-9.
- Hakken, D. (1999). *Cyborgs@Cyberspace?: An ethnographer looks at the future*. London: Routledge.
- Hamilton, A. E. (2015). Development of environmentally friendly messages to promote longer durations of breastfeeding for already breastfeeding mothers. *Health Communication*, 30, 231 - 240.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in practice* (3rd ed.). Wiltshire: The Cromwell Press.
- Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research*, 12(2), 239 - 242.
- Hannan, A., Li, R., Benton-Davis, S., & Grummer-Strawn, L. M. (2005). Regional variation in public opinion about breastfeeding in the United States. *Journal of Human Lactation*, 21(3).
- Hansen, K. (2016). Breastfeeding: A smart investment in people and economies. *The Lancet*, 387, 416.
- Hanson, L. A. (2007). *Feeding and infant development: Breastfeeding and immune function*. Paper presented at the Symposium on "Nutrition in early life: New horizons in a new century", Churchill College, Cambridge.
- Harder, T., Bergmann, R., & Kallischnigg, G. (2005). Duration of breastfeeding and risk of overweight: a meta-analysis. *American Journal of Epidemiology*, 162, 397-403.

- Hardy, S. A., & Carlo, G. (2011). Moral identity: What is it, how does it develop, and is it linked to moral action? *Child Development Perspectives*, 5(3), 212 - 218.
- Hauck, Y. L., Blixt, I., Hildingsson, I., Gallagher, L., Rubertsson, C., Thomson, B., & Lewis, L. (2016). Australian, Irish and Swedish women's perceptions of what assisted them to breastfeed for six months: Exploratory design using critical incident technique. *BMC Public Health*, 16(1067), 1 - 12.
- Hays, S. (1996). *The cultural contradictions of motherhood*. New Haven: Yale University Press.
- Hector, D., Webb, K., & Lymer, S. (2004). *State of Food and Nutrition in NSW Series: Report on Breastfeeding in NSW 2004*. Retrieved from
- Hegney, D., Fallon, T., & O'Brien, M. L. (2008). Against all odds: A retrospective case-controlled study of women who experienced extraordinary breastfeeding problems. *Journal of Clinical Nursing*, 17(9), 1182-1192.
- Henderson, A. M., Pincombe, J., & Stamp, G. E. (2000). Assisting women to establish breastfeeding: Exploring midwives' practices. *Breastfeeding Review*, 8(3), 11 - 17.
- Henderson, L., Kitzing, J., & Green, J. (2000). Representing infant feeding: content analysis of British media portrayals of bottle feeding and breastfeeding. *BMJ*, 321(1), 196-198.
- Herring, S., Johnson, D., & DiBenedetto, T. (1996). This discussion is going too far! Male resistance to female participation on the internet. In K. Hall & M. Bucholtz (Eds.), *Gender articulated: language and the socially constructed self*. New York: Routledge.
- Heymann, J., Sprague, A. R., Nandi, A., Earle, A., Batra, P., Schickedanz, A., . . . Raub, A. (2017). Paid paternal leave and family wellbeing in the sustainable development era. *Public Health Reviews*, 38(1), 21.
- Hine, C. (2000). *Virtual ethnography*. London: Sage Publications Ltd.
- Hine, C. (2005). *Virtual methods* (C. Hine Ed.). London: Berg Publishers.
- Hine, C. (2007). Connective ethnography for the exploration of e-Science. *Journal of Computer-Mediated Communication*, 12(2), 618-634.
- Hirschhorn, L. R., Semrau, K., Kodkany, B., Churchill, R., Kapoor, A., Spector, J., . . . Gawande, A. (2015). Learning before leaping: Integration of an adaptive study design process prior to initiation of BetterBirth, a large-scale

- randomized controlled trial in Uttar Pradesh, India. *Implementation Science*, 10(1), 117.
- Hoddinott, P., Britten, J., & Pill, R. (2010). Why do interventions work in some places and not others: A breastfeeding support group trial. *Social Science and Medicine*, 70(5), 769 - 778.
- Hoddinott, P., Chalmers, M., & Pill, R. (2006). One-to-one or group-based peer support for breastfeeding? Women's perceptions of a breastfeeding peer coaching intervention. *Birth*, 33(2), 139-146.
- Hollenbaugh, E. E. (2013). The effects of anonymity on self-disclosure in blogs: An application of the online disinhibition effect. *Journal of Computer-Mediated Communication*, 18(3), 283 - 302.
- Holman, R. C., Stoll, B. J., & Curns, A. T. (2006). Necrotising enterocolitis hospitalisations among neonates in the United States. *Pediatric Perinatal Epidemiology*, 20, 498-506.
- Horta, B. L., Bahl, R., & Martines, J. C. (2007). *Evidence on the long-term effects of breastfeeding: systematic review and meta-analyses*. Retrieved from Geneva:
- Horta, B. L., & Loret de Mola, C. (2015). Breastfeeding and intelligence: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 14 - 19.
- Horta, B. L., Loret de Mola, C., & Victora, C. G. (2015). Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 30 - 37.
- Horton, S. (2017). Economics of nutritional interventions *Nutrition and Health in a Developing World*. Cham: Humana Press.
- Ingram, J., Rosser, J., & Jackson, D. (2005). Breastfeeding peer supporters and a community support group: Evaluating their effectiveness. *Maternal & Child Nutrition*, 2(2), 111 - 118.
- International Food Policy Research Institute. (2017). *Global Nutrition Report 2017: Nourishing the SDGs*. Retrieved from Washington, DC:
https://www.globalnutritionreport.org/files/2017/11/Report_2017.pdf
- Ip, S., Chung, M., & Raman, G. (2007). *Breastfeeding and maternal and infant health outcomes in developed countries*. Retrieved from
- James, N., & Busher, H. (2009). *Online interviewing*. Thousand Oaks, CA: Sage.

- Jang, J., & Dworkin, J. (2014). Does social network site use matter for mothers? Implications for bonding and bridging capital. *Computers in Human Behavior*, 35, 489 - 495.
- Jenson, T. (2013). 'Mumsnetiquette': Online affect within parenting culture. In C. Maxwell & P. Aggleton (Eds.), *Privilege, Agency and Affect: Understanding the production and effects of action* (pp. 127 - 145). Basingstoke: Palgrave Macmillan.
- Jin, S. V., Phua, J., & Lee, K. M. (2015). Telling stories about breastfeeding through Facebook: The impact of user-generated content (UGC) on pro-breastfeeding attitudes. *Computers in Human Behavior*, 46, 6-17.
- Johnson, S. A. (2015). 'Intimate mothering publics': comparing face-to-face support groups and Internet use for women seeking information and advice in the transition to first-time motherhood. *Culture, Health & Sexuality*, 17(2), 237 - 251.
- Johnson-Young, E. (2018). Predicting intentions to breastfeed for three months, six months, and one year using the Theory of Planned Behavior and body satisfaction. *Health Communication*, 1 - 12.
- Jones, A. (2003). Introduction: Conceiving the intersection of feminism and visual culture. In A. Jones (Ed.), *The feminism and visual culture reader*. New York: Routledge.
- Jones, K. M., Power, M. L., Queenan, J. T., & Schulkin, J. (2015). Racial and ethnic disparities in breastfeeding. *Breastfeeding Medicine*, 10(4), 186 - 196.
- Kakietek, J., Eberwein, J. D., Walters, D., & Meera, S. (2017). *Unleashing gains in economic productivity with investments in nutrition*. Retrieved from
- Keddem, S., Frasso, R., Dichter, M., & Hanlon, A. (2018). The association between pregnancy intention and breastfeeding. *Journal of Human Lactation*, 34(1), 97 - 105.
- Keister, D., Roberts, K. T., & Werner, S. L. (2008). Strategies for breastfeeding success. *American Family Physician*, 78(2), 225-232.
- Kimani-Murage, E. W., Madise, N. J., Fotso, J. C., Kyobutungi, C., Mutua, M. K., Gitau, T. M., & Yatich, N. (2011). Patterns and determinants of breastfeeding and complementary feeding practices in urban informal settlements, Nairobi Kenya. *BMC Public Health*, 11(1), 396.

- Kimani-Murage, E. W., Wakesah, F., Wanjohi, M., Kyobutungi, C., Ezech, A. C., Musoke, R. N., . . . Griffiths, P. (2015). Factors affecting actualization of the WHO breastfeeding recommendations in urban poor settings in Kenya. *Maternal & Child Nutrition*, 11(3), 314 - 332.
- Kivits, J. (2005). Online interviewing and the research relationship. In C. Hine (Ed.), *Virtual Methods: Issues in social research on the internet* (pp. 35 - 50). Oxford: Berg.
- Kontos, E. Z., Emmons, K. M., Puleo, E., & Viswanath, K. (2010). Communication Inequalities and public health implications of adult social networking site use in the United States. *Journal of Health Communication*, 15(sup3), 216-235.
- Kozinets, R. V. (1997a). "I want to believe": A netnography of The X-Files' Subculture of Consumption. In M. Brucks & D. J. MacInnis (Eds.), *Advances in Consumer Research* (Vol. 24, pp. 470 - 475). Provo, UT: Association of Consumer Research.
- Kozinets, R. V. (1997b). *To boldly go: A hypermodern ethnography of Star Trek fans' culture and communities of consumption*. (PhD), Queen's University, Kingston, Canada.
- Kozinets, R. V. (1998). On netnography: Initial reflections on consumer research investigations of cyberculture. In J. Alba & W. Hutchinson (Eds.), *Advances in Consumer Research* (Vol. 25, pp. 366 - 371). Provo, UT: Association for Consumer Research.
- Kozinets, R. V. (2010). *Netnography: Doing ethnographic research online*. London: Sage.
- Kozinets, R. V. (2015). *Netnography: Redefined* (2nd ed.). Thousand Oaks, CA: Sage.
- Krumholz, H. M., Butler, J., Miller, J., Vaccarino, V., Williams, C. S., Leon, C. F. M., . . . Berkman, L. F. (1998). Prognostic importance of emotional support for elderly patients hospitalized with heart failure. *American Heart Association*, 97(10), 958 - 964.
- Kruske, S., Schmied, V., & Cook, M. (2007). The 'Earlybird' gets the breastmilk: Findings from an evaluation of combined professional and peer support groups to improve breastfeeding duration in the first eight weeks after birth. *Maternal & Child Nutrition*, 3(2), 108 - 119.

- Kulik, J. A., & Mahler, H. I. (1993). Emotional support as a moderator of adjustment and compliance after coronary artery bypass surgery: A longitudinal study. *Journal of Behavioral Medicine*, 16(1), 45 - 63.
- Kumar, R. (2014). *Research Methodology: A step-by-step guide for beginners* (4th ed.). Frenchs Forest: Pearson Education Australia.
- Ladomenou, F., Kafatos, A., & Galanakis, E. (2007). Risk factors related to intention to breastfeed, early weaning and suboptimal duration of breastfeeding. *Acta Paediatrica*, 96(10), 1441 - 1444.
- Lagan, B., Sinclair, M., & Kernohan, W. G. (2010). Internet use in pregnancy informs women's decision making: A web based survey. *Birth*, 37(2), 106 - 115.
- Lampel, J., & Bhalla, A. (2007). The role of status seeking in online communities: Giving the gift of experience. *Journal of Computer-Mediated Communication*, 12(2), 434-455.
- Lapidot-Lefler, N., & Barak, A. (2015). The benign online disinhibition effect: Could situational factors induce self-disclosure and prosocial behaviors? *Cyberpsychology: Journal of Psychosocial Research*, 9(2).
- Lau, C. Y. K., Lok, K. Y. W., & Tarrant, M. (2018). Breastfeeding duration and the Theory of Planned Behavior and Breastfeeding Self-Efficacy Framework: A systematic review of observational studies. *Maternal and Child Health*, 22, 327 - 342.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leander, K. M., & McKim, K. K. (2003). Tracing the everyday 'sittings' of adolescents on the Internet: A strategic adaptation of ethnography across online and offline spaces. *Education, Communication and Information*, 3(2), 211-240.
- Lepore, S. J., Buzaglo, J. S., Lieberman, M. A., Golant, M., Greener, J. R., & Davey, A. (2014). Comparing standard versus prosocial internet support groups for patients with breast cancer: A randomized controlled trial of the Helper Therapy Principle. *Journal of Clinical Oncology*, 32(36), 4081 - 4089.
- Levine, D., Madsen, A., Wright, E., Barar, R. E., Santelli, J., & Bull, S. (2011). Formative research on MySpace: Online methods to engage hard-to-reach populations. *Journal of Health Communication*, 16(4), 448-454.

- Li, R., Fein, S. B., Chen, J., & Gummer-Strawn, L. M. (2008). Why mothers stop breastfeeding: mothers' self-reported reasons for stopping during the first year. *Pediatrics*, 122(Supplement 2), S69 - S76.
- Liang, B., & Scammon, D. L. (2011). E-Word-of-Mouth on health social networking sites: An opportunity for tailored health communication. *Journal of Consumer Behaviour*, 10(6), 322-331.
- Litt, J. S. (2000). *Medicalized motherhood: perspectives from the lives of African-American and Jewish women*. New Brunswick, New Jersey: Rutgers University Press.
- Lodge, C. J., Tan, D. J., Lau, M. X. Z., Dai, X., Tham, R., Lowe, A. J., . . . Dharmage, S. C. (2015). Breastfeeding and asthma and allergies: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 38 - 53.
- Lutter, C. K., Chaparro, C. M., Grummer-Strawn, L., & Victora, C. G. (2011). Backsliding on a key health investment in Latin America and the Caribbean: The case of breastfeeding promotion. *American Journal of Public Health*, 101(11), 2130 - 2136.
- Mak, S. W. (2016). Digitalised health, risk and motherhood: Politics of infant feeding in post-colonial Hong Kong. *Health, Risk & Society*, 17(7), 547 - 564.
- Mann, C., & Stewart, F. (2000). *Internet communication in qualitative research: A handbook for researching online*. Thousand Oaks, CA: Sage.
- Markham, A. (2005). The methods, politics, and ethics of online ethnography. In N. Denzin & Y. Lincoln (Eds.), *Sage Handbook of Qualitative Research* (3rd ed., pp. 247-284). London: Sage.
- Markham, A. N. (1998). *Life online: Researching real experience in virtual space*. Walnut Creek, CA: AltaMira Press.
- Markham, A. N., & Baym, N. K. (2009). *Internet inquiry*. Thousand Oaks, CA: Sage Publishing, Inc.
- Marshall, J. L., Godfrey, M., & Renfrew, M. (2007). Being a 'good mother': managing breastfeeding and merging identities. *Social Science and Medicine*, 65(10), 2147 - 2159.
- Martens, P. J. (2002). Increasing breastfeeding initiation and duration at a community level: An evaluation of Sagkeeng First Nation's community health nurse and peer counselor programs. *Journal of Advanced Nursing*, 18(3), 236-246.

- Masood, S., ur Rahman, M., Mahmood, H., Faisal, T., Maroof, S., & Qureshi, A. M. (2016). Observance of WHO Ten Steps Towards Successful Breastfeeding: A survey from postpartum mothers. *Journal of Ayub Medical College Abbottabad*, 28(1), 84 - 88.
- McAndrew, F., Thompson, J., Fellows, L., Large, A., Speed, M., & Renfrew, M. J. (2012). *Infant feeding survey 2010*. Retrieved from Leeds, UK:
- McConville, B. (1994). *Mixed Messages: Our breasts in our lives* (1st ed.). St Ives: Penguin Books.
- McDaniel, B. T., Coyne, S. M., & Holmes, E. K. (2012). New mothers and media use: Associations between blogging, social networking, and maternal well-being. *Maternal & Child Nutrition*, 16(7), 1509 - 1517.
- McDonald, S. D., Pullenayegum, E., Chapman, B., Vera, C., Giglia, L., Fusch, C., & Foster, G. (2012). Prevalence and predictors of exclusive breastfeeding at hospital discharge. *Obstetrics & Gynecology*, 119(6), 1171 - 1179.
- McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., . . . MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies *Cochrane Database of Systematic Reviews*.
- McInnes, R. J., & Chambers, J. A. (2008). Supporting breastfeeding mothers: qualitative synthesis. *Journal of Advanced Nursing*, 62(4), 407 - 427.
- McLachlan, H. L., & Forster, D. A. (2006). Initial breastfeeding attitudes and practices of women born in Turkey, Vietnam and Australia after giving birth in Australia. *International Breastfeeding Journal*, 1(7), 7.
- McVea, K. L., Turner, P. D., & Peppler, D. K. (2000). The role of breastfeeding in sudden infant death syndrome. *Journal of Human Lactation*, 1(1), 13-20.
- Meier, E. R., Olson, B. H., Benton, P., Eghtedary, K., & Song, W. O. (2007). A qualitative evaluation of a breastfeeding peer counselor program. *Journal of Human Lactation*, 23(3), 262-268.
- Mickelson, K. (1997). Seeking social support: Parents in electronic support groups. In S. Kiesler (Ed.), *Culture of the Internet* (pp. 157 - 178). New Jersey: Laurence Erlbaum Associates.
- Miller, D., & Slater, D. (2000). *The Internet: An ethnographic approach*. Oxford: Berg.

- Miyata, K. (2002). Social support for Japanese mothers online and offline. In B. Wellman & C. Haythornthwaite (Eds.), *The internet in everyday life* (pp. 520 - 548). Malden, MA: Blackwell Publishers.
- Mo, P. K. H., & Coulson, N. S. (2012). Developing a model for online support group use, empowering processes and psychosocial outcomes for individuals living with HIV/AIDS. *Psychology and Health*, 27(4), 445-459.
- Morales, L. (2011). Google and Facebook users skew young, affluent, and educated. Retrieved from <http://www.gallup.com/poll/146159/facebook-google-users-skew-young-affluent-educated.aspx>
- Murphy, E. (1999). 'Breast is best': Infant feeding decisions and maternal deviance. *Sociology of Health & Illness*, 21(2), 187 - 208.
- Murphy, E. (2004). Risk, maternal ideologies and infant feeding. In L. Williams & J. Germov (Eds.), *The social appetite: An introduction to the sociology of food and nutrition* (2nd ed., pp. 200 - 219). Melbourne: Oxford University Press.
- Murphy, E. A. (2000). Risk, responsibility and rhetoric in infant feeding. *Journal of Contemporary Ethnography*, 29, 291 - 325.
- Murthy, D. (2008). Digital Ethnography: An Examination of the Use of New Technologies for Social Research. *Sociology*, 42(5), 837-855.
- Nankunda, J., Tumwine, J. K., Nankabirwa, V., & Tylleskar, T. (2010). 'She would sit with me': Mothers' experiences of individual peer support for exclusive breastfeeding in Uganda. *International Breastfeeding Journal*, 5(16), 16.
- National Health & Medical Research Council. (2013). Infant Feeding Guidelines: information for health workers (2012). Retrieved from <https://www.nhmrc.gov.au/guidelines-publications/n56>
- Nelson, A. M. (2006). A metasynthesis of qualitative breastfeeding studies. *Journal of Midwifery and Women's Health*, 51(2), e13-e20.
- Newman, H. D., & Henderson, A. C. (2014). The modern mystique: Institutional mediation of hegemonic motherhood. *Sociological Inquiry*, 84(3), 472 - 491.
- NHS England. (2014). *Statistical release breastfeeding initiation & breastfeeding prevalence 6 - 8 weeks*. Retrieved from London:
- Norwood, K., & Turner, P. K. (2013). The breast is (always) for sex: Breastfeeding discourse in response to May 21, 2012 TIME Magazine cover. *Qualitative Research Reports in Communication*, 14(1), 79 - 86.

- NSW Health. (2011). *Policy Directive. Breastfeeding in NSW: Promotion, protection and support (No. PD2011_042)*. Retrieved from http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_042.pdf
- Nyawade, S. A., Middlestadt, S. E., & Peng, C. J. (2016). Beliefs about Supporting Mothers to Exclusively Breastfeed for 6 Months: An Elicitation Study of Health Professionals Working in Maternal-Child Health Clinics in Nairobi, Kenya. *Journal of Human Lactation*, 32(3), 551 - 558.
- O'Connor, H., & Madge, C. (2004). 'My mum's thirty years out of date': the role of the internet in the transition to motherhood. *Community, Work and Family*, 7, 351-369.
- O'Reilly, K. (2005). *Ethnographic methods* (Vol. 1). Cornwall: Routledge.
- O'Brien, T. B., & DeLongis, A. (1996). The interactional context of problem-, emotion-, and relationship-focused coping: The role of the big five personality factors. *Journal of Personality*, 64(4), 775 - 813.
- Oliver-Roig, A., d'Anglade-Gonzalez, M., Garcia-Garcia, B., Silva-Tubio, J., Richart-Martinez, M., & Dennis, C. (2011). The Spanish version of the Breastfeeding Self-Efficacy Scale-Short Form: Reliability and validity assessment. *International Journal of Nursing Studies*, 49(2), 169 - 173.
- Ortlipp, M. (2008). Keeping and using reflective journals in the qualitative research process. *The Qualitative Report*, 13(4), 695 - 705.
- Owen, C. G., Martin, R. M., & Whincup, P. H. (2006). Does breastfeeding influence risk of type 2 diabetes in later life? A quantitative analysis of published evidence. *American Journal of Clinical Nutrition*, 84(5), 1043-1054.
- Pacheco, A. R., Barile, D., Underwood, M. A., & Mills, D. A. (2015). The impact of the milk glycobiome on the neonate gut microbiota. *Annual Review of Animal Biosciences*, 3(1), 419 - 445.
- Pagano, M. E., Post, S. G., & Johnson, S. M. (2011). Alcoholics Anonymous-related helping and the helper therapy principle. *Alcoholism Treatment Quarterly*, 29(1), 23-34.
- Pandey, S. K., Hart, J. J., & Tiwary, S. (2013). Womens's health and the internet: Understanding emerging trends and implications. *Social Science and Medicine*, 56(1), 179 - 191.

- Papinczak, T., & Turner, C. (2000). An analysis of personal and social factors influencing initiation and duration of breastfeeding in a large Queensland maternity hospital. *Breastfeeding Review*, 8(1), 25-33.
- Park, H., Rodgers, S., & Stemmler, J. (2013). Analyzing health organizations' use of Twitter for promoting health literacy. *Journal of Health Communication*, 18(4), 410-425.
- Payne, D., & Nicholls, D. A. (2010). Managing breastfeeding and work: A Foucauldian secondary analysis. *Journal of Advanced Nursing*, 66(8), 1810 - 1818.
- Pedersen, S., & Smithson, J. (2013). Mothers with attitude - How the Mumsnet parenting forum offers space for new forms of femininity to emerge online. *Women's Studies International Forum*, 38, 97 - 106.
- Pink, S. (2009). *Doing sensory ethnography*. London: Sage.
- Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2015). *Digital Ethnographies: Principles and practice*
- Postill, J., & Pink, S. (2012). Social media ethnography: The digital researcher in a messy web. *Media International Australia*, 145(1), 123-134.
- Potter, J., & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London: Sage.
- Preece, J. (2001). Online communities: usability, sociability, theory and methods. In R. Earnshaw, R. Guedj, A. V. Dam, & T. Vince (Eds.), *Computing, online communities and virtual environments*. Amsterdam: Springer Verlag.
- Pugh, L. C., & Milligan, R. A. (1998). Nursing intervention to increase the duration of breastfeeding. *Applied Nursing Research*, 11(4), 190-194.
- Putnam, R. (2000). *Bowling Alone. The Collapse and Revival of American Community*. New York: Touchstone.
- Pyett, P. M. (2003). Validation of qualitative research in the "real world". *Qualitative Health Research*, 13(8), 1170 - 1179.
- Raisler, J. (2000). Against the odds: Breastfeeding experiences of low income mothers. *Journal of Midwifery and Women's Health*, 45(3), 253 - 263.
- Raj, V. K., & Plichta, S. B. (1998). The role of social support in breastfeeding promotion. *Journal of Human Lactation*, 14(1), 41 - 45.

- Rau, P. L. P., Gao, Q., & Ding, Y. (2008). Relationship between the level of intimacy and lurking in online social network services. *Computers in Human Behavior*, 24(6), 2757-2770.
- Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information*, 27(1), 6-30.
- Reed, J., & Procter, S. (1995). *Practitioner research in health care*. London: Chapman & Hall.
- Reissman, F. (1965). The "helper" therapy principle. *Social Work*, 27-32.
- Riordan, J. (2000). Teaching breastfeeding on the web. *Journal of Human Lactation*, 16(3), 231-234.
- Rippeyoung, P. L. F., & Noona, M. C. (2012). Is breastfeeding truly cost free? Income consequences of breastfeeding for women. *American Sociological Review*, 77(2), 244 - 267.
- Rizzo, K. M., Schiffrin, H. H., & Liss, M. (2012). Insight into the parenthood paradox: Mental health outcomes of intensive mothering. *Journal of Child Family Studies*, 22(5), 614 - 620.
- Robert, E., Coppieters, Y., Swennen, B., & Dramaix, M. (2014). The reasons for early weaning, perceived insufficient breast milk, and maternal dissatisfaction: Comparative studies in two Belgian regions. *International Scholarly Research Notices*, 2014.
- Robinson, L., & Schultz, J. (2009). New avenues for sociological inquiry: Evolving forms of ethnographic practice. *Sociology*, 43(4), 685-698.
- Rogers, C. (1992). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting and Clinical Psychology*, 60(6), 827 - 832.
- Rollins, N., Bhandari, N., Hajeerhoy, N., Horton, S., Lutter, C. K., Martines, J. C., . . . Victora, C. G. (2016). Why invest, and what it will take to improve breastfeeding practices. *The Lancet*, 387(10017), 491 - 504.
- Rossmann, B., Engstrom, J. L., Meier, P. P., Vonderheid, S. C., Norr, K. F., & Hill, P. D. (2011). 'They've walked in my shoes': Mothers of very low birth weight infants and their experiences with breastfeeding peer counselors in the neonatal intensive care unit. *Journal of Human Lactation*, 27, 14-24.

- Roter, D., & Hall, J. (1997). Patient-provider communication theory. In K. Glanz, F. Lewis, & B. Rimer (Eds.), *Health behavior and health education: Theory, research and practice* (2nd ed., pp. 206-222). San Francisco, CA: Jossey Bass Publishers.
- Roulston, K. (2001). Data analysis and 'theorizing as ideology'. *Qualitative Research*, 1(3), 279 - 302.
- Ryan, K., Bissell, P., & Alexander, J. (2010). Moral work in women's narratives of breastfeeding. *Social Science and Medicine*, 70(6), 951 - 958.
- Sade-Beck, L. (2004). Internet ethnography: Online and offline. *International Journal of Qualitative Methods*, 3(2), 45-51.
- Sankar, M. J., Sinha, B., Chowdhury, R., Bhandari, N., Taneja, S., Martinez, J., & Bahl, R. (2015). Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. *Acta Paediatrica*, 104(S467), 3-13.
- Schmied, V., & Barclay, L. (1999). Connection and pleasure, disruption and distress: women's experience of breastfeeding. *Journal of Human Lactation*, 15(4), 325-334.
- Schmied, V., Beake, S., Sheehan, A., McCourt, C., & Dykes, F. (2011). Women's perceptions and experiences of breastfeeding support: a metasynthesis. *Birth*, 38(1), 49 - 60.
- Scott, J. A., Landers, M. C., Hughes, R., & Binns, C. W. (2001). Factors associated with breastfeeding at discharge and duration of breastfeeding. *Journal of Paediatrics and Child Health*, 37(3), 254-261.
- Scott, J. A., & Mostyn, T. (2003). Women's experiences of breastfeeding in a bottle-feeding culture. *Journal of Human Lactation*, 19(3), 270-277.
- Sensis. (2017). *Sensis Social Media Report 2017*. Retrieved from Australia: <https://www.sensis.com.au/asset/PDFdirectory/Sensis-Social-Media-Report-2017.pdf>
- Shaikh, U., & Scott, B. J. (2005). Extent, accuracy and credibility of breastfeeding information on the Internet. *Journal of Human Lactation*, 21, 175-183.
- Shakespeare, J., Blake, F., & Garcia, J. (2004). Breast-feeding difficulties experienced by women taking part in a qualitative interview study of postnatal depression. *Midwifery*, 20(3), 251-260.

- Sharf, B. F. (1997). Communicating breast cancer on-line: support and empowerment on the internet. *Women and Health*, 26(1), 65-84.
- Shaw, B. R., Yeob Han, J., Hawkins, R. P., McTavish, F. M., & Gustafson, D. H. (2008). Communicating about self and others within an online support group for women with breast cancer and subsequent outcomes. *Journal of Health Psychology*, 13(7), 930-939.
- Shealy, K. R., Li, R., Benton-Davis, S., & Grummer-Strawn, L. M. (2005). The CDC guide to breastfeeding interventions. Retrieved from http://www.cdc.gov/breastfeeding/pdf/BF_guide_3.pdf
- Sheehan, A. (2006). *Deconstructing Best. A grounded theory study of infant feeding decisions in the first six weeks post-birth*. (PhD), University of Technology Sydney, Sydney.
- Sheehan, A., Schmied, V., & Barclay, L. (2009). Women's experiences of infant feeding support in the first 6 weeks post-birth. *Maternal & Child Nutrition*, 5(2), 138-150.
- Sheehan, A., Schmied, V., & Barclay, L. (2010). Complex decisions: theorizing women's infant feeding decisions in the first 6 weeks after birth. *Journal of Advanced Nursing*, 66(2), 371-380.
- Shekar, M., Kakietek, J., Dayton Eberwein, J., & Walters, D. (2017). *An investment framework for nutrition, Reaching the global targets for stunting, anemia, breastfeeding, and wasting*. Retrieved from Washington, DC: <https://openknowledge.worldbank.org/handle/10986/26069>
- Shepherd, C. K., Power, K. G., & Carter, H. (2000). Examining the correspondence of breastfeeding and bottle-feeding couples' infant feeding attitudes. *Journal of Advanced Nursing*, 31(3), 651-660.
- Smith, A. E., & Humphreys, M. S. (2006). Evaluation of unsupervised semantic mapping of natural language with Leximancer concept mapping. *Behavior Research Methods*, 38(2), 262-279.
- Smith, J., Thompson, J., & Ellwood, D. (2002). Hospital system costs of artificial infant feeding: Estimates for the Australian Capital Territory. *Australian and New Zealand Journal of Public Health*, 26(6), 542-551.

- Smith, J. P., & Forrester, R. (2013). Who pays for the health benefits of exclusive breastfeeding? An analysis of maternal time costs. *Journal of Human Lactation*, 29(4), 547 - 555.
- Smith, J. P., & Harvey, P. J. (2010). Chronic disease and infant nutrition: Is it significant to public health? *Public Health Nutrition*, 14(2), 279 - 289.
- Solomon, G., Weiss, P., Owen, B., & Citron, A. (2005). Issues: Healthy milk, healthy baby. Retrieved from <http://www.nrdc.org/breastmilk/default.asp>
- Song, F., West, J., Lundy, L., & Dahmen, N. (2012). Women, pregnancy, and health information online: The making of informed patients and ideal mothers. *Gender & Society*, 26(5), 773 - 798.
- Spradley, J. P. (1980). *Participant observation*. New York: Holt, Rinehart & Winston.
- Stafford, I. A., Rodrigue, E., Berra, A., Adams, W., Heard, A. J., Hagan, J. L., & Stafford, S. J. (2018). The strong correlation between neonatal early-onset Group B Streptococcal disease and necrotizing enterocolitis. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 223, 93 - 97.
- Strange, C., Bremner, A., Fisher, C., Howat, P., & Wood, L. (2016). Mothers' group participation: Associations with social capital, social support and mental well-being. *Journal of Advanced Nursing*, 72(1), 85 - 98.
- Suarez, A., Rodrigo, M. J., & Muneton, M. (2016). Parental activities seeking online parenting support: Is there a digital skill divide? *Revista de Cercetare Si Interventie Sociala*, 54, 36 - 54.
- Tardy, R. (2000). 'But I am a good mom': The social construction of motherhood through health-care conversations. *Journal of Contemporary Ethnography*, 29(4), 433 - 473.
- Tarrant, M., Fong, D. Y. T., Wu, K. M., Lee, I. L. Y., Wong, E. M. Y., Sham, A., . . . Dodgson, J. E. (2010). Breastfeeding and weaning practices among Hong Kong mothers: a prospective study. *BMC Pregnancy Childbirth*, 10:27, 1 - 12.
- Tarrant, R., & Kearney, J. (2008). *Session 1: Public health nutrition: Breastfeeding practices in Ireland*. Paper presented at the Symposium on 'The challenge of translating nutrition research into public health nutrition'.
- Taylor, S. E. (2003). *Health Psychology* (6th ed.). New York: McGraw-Hill.
- Temple Newhook, J., Newhook, L. A., Midodzi, W. K., Murphy Goodridge, J., Burrage, L., Gill, N., . . . Twells, W. (2017). Poverty and breastfeeding:

- Comparing determinants of early breastfeeding cessation incidence in socioeconomically marginalized and privileged populations in the FiNaI study. *Health Equity*, 1(1), 96 - 102.
- Thomas, J. R., & Shaikh, U. (2007). Electronic communication with patients for breastfeeding support. *Journal of Human Lactation*, 23, 275-279.
- Thomas, P. (2006). Suck on this. Retrieved from http://www.theecologist.org/archive_detail.asp?content_id=586
- Thomson, G., Balaam, M. C., & Hymers, K. (2015a). Building social capital through breastfeeding support: Insights from an evaluation of a voluntary breastfeeding peer support service in North-West England. *Int Breastfeed J*, 10, 15.
- Thomson, G., Balaam, M. C., & Hymers, K. (2015b). Building social capital through breastfeeding support: insights from an evaluation of a voluntary breastfeeding peer support service in North-West England. *International Breastfeeding Journal*, 10(1), 15.
- Thomson, G., Crossland, N., & Dykes, F. (2011). Giving me hope: Women's reflections on a breastfeeding peer support service. *Maternal & Child Nutrition*, 8(3), 340-353.
- U.S. Department of Health and Human Services. (2011). *The surgeon general's call to action to support breastfeeding*. Retrieved from Washington, DC:
- United Nations International Children's Fund. (2012). UNICEF: State of the World's Children 2015 Executive Summary. Retrieved from <https://www.unicef.org/publications/files/>
- van Uden-Kraan, C., Drossaert, C. H. C., Taal, E., Shaw, B. R., Seydel, E. R., & van de Laar, M. A. F. J. (2008). Empowering processes and outcomes in online support groups for patients with breast cancer, arthritis or fibromyalgia. *Qualitative Health Research*, 18(3), 405-417.
- VanDoorn, G., & Eklund, A. A. (2013). Face to Facebook: Social media and the learning and teaching potential of symmetrical, synchronous communication. *Journal of University Teaching & Learning Practice*, 10(1).
- Victora, C. G., Bahl, R., Barros, A. J. D., Franca, G. V. A., Horton, S., & Krasevec, J. (2016). Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet*, 387(10017), 475 - 490.

- Victora, C. G., Bahl, R., Barros, A. J. D., Franca, G. V. A., S, H., & Krasevec, J. (2016). Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet*, 387(10017), 475 - 490.
- Vilhauer, R. P., McClintock, M. K., & Matthews, A. K. (2010). Online support groups for women with metastatic breast cancer: a feasibility pilot study. *Journal of Psychosocial Oncology*, 28(5), 560 - 586.
- Wade, D., Haining, S., & Day, A. (2009). Breastfeeding peer support: Are there additional benefits? *Community Practitioner*, 82(12), 30-33.
- Wall, G. (2010). Mothers' experiences with intensive parenting and brain development discourse. *Women's Studies International Forum*, 33(3), 253 - 263.
- Weber, R. P. (1990). *Basic Content Analysis*. Newbury Park, CA: Sage.
- Weinmann, T. S., Thomas, S., Brilmayer, S., Heinrich, S., & Radon, K. (2012). Testing Skype as an interview method in epidemiologic research: response and feasibility. *International Journal of Public Health*, 57(6), 959 - 961.
- Weiten, W., Lloyd, M. A., & Dunn, D. S. (2003). *Psychology applied to modern life: Adjustment in the 21st century* (7th ed.). Florence, KY: Wadsworth Publishing.
- Wellman, B., & Frank, K. (2001). Network capital in a multi-level world: getting support from personal communities. In N. Lin, R. Burt, & K. Cook (Eds.), *Social capital: theory and research*. Hawythorne, NY: Aldine de Gruyter.
- Wessel, J., Niedbala, B., & Ekvall, S. W. (2017). Postnatal growth in infancy. In S. W. Ekvall & V. K. Ekvall (Eds.), *Pediatric and adult nutrition in chronic diseases, developmental disabilities, and hereditary metabolic disorders: Prevention, assessment, and treatment* (3rd ed.). Great Britain: Oxford University Press.
- Widdicombe, S., & Wooffitt, R. (1995). *The language of youth subcultures: Social identity in action*. London: Harvester Wheatsheaf.
- Williams, P., Barclay, L., & Schmied, V. (2004). Defining social support in context: a necessary step in improving research, intervention, and practice. *Qualitative Health Research*, 14(7), 942 - 960.
- Winefield, H. R. (2006). Support provision and emotional work in an Internet support group for cancer patients. *Patient Education and Counselling*, 62(2), 193-197.

- World Health Organization. (2003). *Global strategy for infant and young child feeding*. Retrieved from Geneva:
- World Health Organization. (2009). Baby-Friendly Hospital Initiative: Revised, updated and expanded for integrated care. Retrieved from http://www.who.int/nutrition/publications/infantfeeding/bfhi_trainingcourse/en/
- World Health Organization. (2018). Maternal mental health. Retrieved from http://www.who.int/mental_health/maternal-child/maternal_mental_health/en/
- World Health Organization, & United Nations International Children's Fund. (1990). *Breastfeeding in the 1990s: Implications for a global strategy*. Geneva: World Health Organisation.
- Wright, K. B., Rosenberg, J., Egbert, N., Ploeger, N. A., Bernard, D. R., & King, S. (2013). Communication competence, social support, and depression among college students: A model of Facebook and face-to-face support network influence. *Journal of Health Communication, 18*(1), 41-57.
- Wu, Y. H., Ho, Y. J., Han, J. P., & Chen, S. Y. (2018). The Influence of Breastfeeding Self-Efficacy and Breastfeeding Intention on Breastfeeding Behavior in Postpartum Women. *Journal of Nursing, 65*(1), 42 - 50.
- Zhang, Y., He, D., & Sang, Y. (2013). Facebook as a Platform for Health Information and Communication: A Case Study of a Diabetes Group. *Journal of Medical Systems, 37*(3), 1-12.

APPENDICES

Appendix A – Information Sheet

Human Research Ethics Committee
Office of Research Services

Participant information sheet (General)

Project Title

"Breastfeeding and online social networking: A netnographic study exploring the experiences of users of ABA Facebook pages"

Who is carrying out the study?

You are invited to participate in a study conducted by:

Nicole Bridges 92317909@student.uws.edu.au

PhD candidate, School of Communication Arts

What is the study about?

My name is Nicole Bridges, and in addition to being a mother of three, a breastfeeding counsellor, community educator, and trainer with the Australian Breastfeeding Association (ABA) and an academic, I am undertaking my PhD at the University of Western Sydney, Australia.

The purpose of the study is to investigate the types of parents who are likely to engage in a social networking tool like "Facebook" and how engaging with this tool impacts on their breastfeeding experience. I hope that the information gained from this study will help breastfeeding support groups around the world, as well as other health related peer support groups improve their services to those in need.

Breastfeeding provides optimum nutrition and development for human babies, however without the correct information and adequate and appropriate support, many mothers will not achieve their breastfeeding goals, making it an important public health issue. Although research has shown that both support from health care professionals and other mothers is effective in improving breastfeeding rates, it is not certain what are the best ways of delivering such support in different settings. With rapid changes in online communication, the advent of Web 2.0, and a move towards reliance on mobile devices, it has been observed that parents today are seeking information and support in a multitude of different ways.

What does the study involve?

I plan to look at Facebook posts over a period of four weeks in order to get a sufficient number. You have a choice as to whether to participate (see below). I will then analyse the contents of the posting. These primary research questions will be addressed:

1. Describe the people who use ABA Facebook pages.
2. Describe the evolution and nature of the online community.

3. Why has this online community engaged in Facebook?
4. Explore and examine the culture of the online community, including:
 - a. How do participants contribute to constructing the culture of their group's Facebook page?
 - b. How do participants gain meaning in their breastfeeding experience through being a member of their group's Facebook community?

Once I have analysed the Facebook posts, I plan on running a series of online focus groups. If you post on the forum during the four week data collection period, you may be asked to participate in these focus groups. The other method I plan to employ is online individual interviews once the online focus groups have taken place. Only some of the people who have consented to and participated in the focus groups will be asked to participate in the interviews.

Will anyone else know the results? How will the results be disseminated?

Precautions will be taken to ensure the confidentiality and security of the information taken from Facebook. Only my supervisors and I will be allowed to see the raw data. The results will be written up in the form of a thesis and I hope it will be more widely published such as in the form of professional journals and conference presentations. In such publications and or presentations there will be no reference made to individual participants. All data will be aggregated in the analysis and pseudonyms will be used.

Will the study benefit me?

I hope that users will find it interesting and helpful in their use of Facebook, as well having the satisfaction of helping even more people (especially other breastfeeding mothers) through the use that I hope will be made of the results of the study.

Will the study involve any discomfort for me?

Some users may feel reluctant to use Facebook for support during the period of the study as their attention has been drawn to the fact that the study is taking place and all further postings for a few weeks will be read and analysed by me. Regardless of whether you choose to participate or not, other ways you can obtain breastfeeding support include:

- Going to the Australian Breastfeeding Association (ABA) website at www.breastfeeding.asn.au and participating in their forums
You can also access email counseling at this website if your question is not urgent
- The ABA also have a Breastfeeding Helpline, especially if your question is urgent. This can be accessed 24 hours a day, 7 days a week by Australian residents on 1800 686 268.
- International online breastfeeding support is also available via the La Leche League International and Association of Breastfeeding Mothers web sites, which also have discussion boards or lists.
- Other counselling services are offered by Lifeline, PANDA, Beyond Blue, Relationships Australia, and your local community health service.

It is very unlikely that any harm will come to Facebook users by using your posts in this way. Remember you have many options to get your support for breastfeeding, should you choose not to use this Facebook page during the research period. If you should feel distressed participating in the discussion that is being observed or in the focus groups, we will be able to offer you the contact details of local counselling support services.

There will of course be no disadvantage to you should you not wish to participate in the study, or withdraw from it before it has finished.

Participation is your choice

So, what do you have to do to participate? All you need to do is keep using this Facebook page as you normally would, of course always keeping personal safety recommendations in mind. I will only be using postings from after this announcement has been posted on your group's Facebook page, so you can choose whether or not to participate. A further announcement will be posted when data collection has finished. If you do not wish to participate in this study, during the study period you may choose to:

- not post on this Facebook page, or
- email me (92317909@student.uws.edu.au) and ask me not to include your future posts, or
- email me and ask for any of your previous posts to be withdrawn from the study (and records of them in my possession destroyed) up to four weeks after they were posted.

Posting on this Facebook page will be taken as implying your agreement to participate in this study, unless you email me and ask me not to include your posts.

Once the information from the page has been analysed and written up, the results of the study will be available to you should you ask me for them.

Can I withdraw from the study?

Participation is entirely voluntary. You are not obliged to be involved and - if you do participate - you can withdraw at any time without giving any reason and without any consequences.

Can I tell other people about the study?

Yes, you can tell other people about the study by providing them with the chief investigator's contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?

For further information on this research project, please do not hesitate to contact the chief investigator (Nicole Bridges) by email 92317909@student.uws.edu.au or the supervisors from the University of Western Sydney:

Dr Gwyneth Howell (g.howell@uws.edu.au)
Associate Professor Virginia Schmied (v.schmied@uws.edu.au)

What if I have a complaint?

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The approval number is H9010.

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel 02-4736 0883 Fax 02-4736 0013 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.

Appendix B – Participant consent form

Human Research Ethics Committee
Office of Research Services



Participant Consent Form

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

I,....., consent to participate in the research project titled “Breastfeeding and online social networking: A netnographic study exploring the experiences of users of ABA Facebook pages”.

I acknowledge that:

I have read the participant information sheet [or where appropriate, ‘have had read to me’] and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to the transcription of online interview.

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Project Title: “Breastfeeding and online social networking: A netnographic study exploring the experiences of users of ABA Facebook pages”.

Signed:

Name:

Date:

Return Address:

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is: H9010. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix C – Ethics approval

UWS HUMAN RESEARCH ETHICS COMMITTEE

28 June 2011

Doctor Gwyneth Howell,
School of Communication Arts

Dear Gwyneth and Nicole,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal **H9010** *"Breastfeeding and online social networking: A ethnographic study exploring the experiences of users of the 'Breastfeeding Cafe'"*, until 1 July 2012 with the provision of a progress report annually and a final report on completion.

Please quote the project number and title as indicated above on all correspondence related to this project.

This protocol covers the following researchers:
Gwyneth Howell, Virginia Schmied, Nicole Bridges.

Yours sincerely

Dr Anne Abraham
Chair, UWS Human Research Ethics Committee

Appendix D – Ethics amendment approval

Locked Bag 1797
Penrith NSW 2751 Australia



Office of Research Services

Our Reference: 11/007809 | H9010

13 May 2013

Doctor Gwyneth Howell
School of Humanities and Communication Arts

Ms Nicole Bridges
School of Humanities and Communication Arts

Dear Gwyneth and Nicole

RE: Amendment Request to H9010

I acknowledge receipt of your email dated 10 May 2013 concerning a request to amend your approved research protocol *H9010 "Breastfeeding and online social networking: An ethnographic study exploring the experiences of users of the 'Breastfeeding Café'"*.

The Office of Research Services has reviewed your amendment request and I am pleased to advise that it has been approved as follows:

1. *Extension of approval period until 1 July 2014*
2. *Change in recruitment medium from Australian Breastfeeding Association (ABA) site to Facebook, with conditions of approval for use of site to remain the same.*

Please do not hesitate to contact me at humanethics@uws.edu.au if you require any further information.

Regards

Jillian Shute
Human Ethics Officer
Office of Research Services

Appendix E – Depth interview questions

- 1) Provide a brief description of your involvement with your group's Facebook page (including when you joined, what is your role within ABA and the Facebook page, how often you post, etc).
- 2) What types of content do you like to post to the site and why?
- 3) What are the types of wall posts that members are most likely to “Comment” on/“Like” and why do you think that is?
- 4) What role does the Facebook page play within your local ABA group (i.e. provide information about the group and the ABA, a reminder for group events, a place of support for breastfeeding mums, etc)?
- 5) Does there seem to be the same "type" of mum in attending f2f compared to involved online or do you think both mediums attract a different type of mum?
- 6) Do you feel that your ABA group Facebook page plays a different role in the lives of its members than going along to a face-to-face group event? How?
- 7) Do you feel your group’s Facebook page is successful? Why/why not?
- 8) Is there anything you would like to see change about the way your group’s Facebook page operates?
- 9) What do you see as the future for your group’s Facebook page?

Appendix F – Focus group questions

- 1) Why did you decide to join the ABA? Why have you continued to be involved?
- 2) Are you involved with the ABA via their face-2-face groups or only via Facebook? Please explain why you are involved in this way.
- 3) Describe your experience with your local ABA group. Think about both your f2f experiences and your online experiences via this Facebook group.
- 4) Tell me about your best experience with the group.
- 5) Tell me about your worst experience with the group.
- 6) What motivates your involvement with the ABA? Think about your involvement with Facebook, f2f, at group level, and at other levels within the Association.
- 7) For those of you involved in other online breastfeeding and parenting support groups, how does this ABA Facebook group compare with those?
- 8) Based on your experiences with the ABA, what words or phrases would you use to describe them as an organization?
- 9) How would you describe the ABA to a friend or someone who is expressing an interest in either being involved or asking why you are involved?