

The everyday life information seeking behaviours of first-time mothers

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Structured Abstract

Purpose – The study investigates the everyday life information seeking behaviours of first-time mothers, as they encounter new, significant and pressing information needs which arise alongside their new responsibilities.

Design/methodology/approach - A qualitative approach, combining narrative interviews with participatory methods to facilitate engagement and remain sensitive to the social context.

Findings - Mothers particularly valued the experiential nature of information received from peers or family members. However, fear of judgment influenced their use of interpersonal sources, both on- and off-line. Their accounts of information seeking contained instances of confusion, tension, conflict, and information overload. Feeling under pressure to be “good mothers”, they withheld information needs from others, including healthcare professionals.

Research limitations/implications - There was a notable absence of younger (<20 y.o.) and/or less educated mothers in the study. This corresponds to previous findings which report that very young mothers are reluctant to participate in support groups with older mothers. They remain an understudied and potentially marginalised group.

Practical implications - The findings show how social support groups can mitigate for societal pressures which impact upon mothers’ information behaviour, allowing them to connect and share information within a trusted environment. The study highlights the importance of healthcare and information services professionals remaining sensitive to such pressures. Relatedly, the finding that public libraries are used very little has implications for audience engagement and service provision.

Originality/value - Focused upon first-time mothers’ information behaviours during the early stages of parenthood, the study provides insight into how relationships and experiences with information gatekeepers and others influences information seeking behaviours. Provides evidence that fear of judgment can influence information seeking behaviour, helping us to understand why some information sources, although considered important and useful, can be used very little.

Keywords: Information Seeking Behaviour; Social interaction; Information services; United Kingdom; Healthcare; Libraries; Judgment; Motherhood; Parenting

1 Introduction

Becoming a mother is a major life event which affects a woman’s concept of identity, and in relation, her self-perceived information needs which grow significantly alongside her new responsibilities

(McKellar *et al.*, 2009, Hjälmhult & Lomborg, 2012). Particularly heavy demands are placed upon first-time mothers who are more prone to post-natal depression than multiparous women (Leahy Warren, 2005).

Informational support helps mothers feel prepared and confident for their new role, and eases the transition to parenthood (Leahy Warren, 2005; Darvill *et al.*, 2008; McKellar *et al.*, 2009). Mothers may consider actively seeking information as “an important part of becoming prepared for motherhood” (McKenzie, 2002, p43) that in itself presents new challenges.

The provision of informational support may be under threat, with resourcing and funding issues leading to professionals “cramming” information into short appointments, leaving little time for discussion or for nurturing trusting relationships (The Royal College of Midwives, 2013). In a survey involving 2366 mothers (Scottish Government, 2014) 44% of mothers report unmet information needs during antenatal care, and 39% during postnatal care. Further studies report similar unmet information needs, particularly amongst young first time mothers, and call for tailored parental information support (e.g. Harden *et al.*, 2006; Coltart, 2007).

The challenges faced by information providers may be compounded by our limited understanding of the information needs of mothers, and recognising information seeking as a process of social construction (Pettigrew *et al.*, 2001), our limited understanding of the people, places and experiences which constitute their collective sources of information (Fisher & Landry, 2007; Berkule-Silberman *et al.*, 2010).

As they negotiate the early days of parenting, new mothers find themselves in a variety of new situations, meeting new people, and visiting new places. More generally, “a deeper understanding is required” (Fourie and Julien, 2014, n.p.) of everyday life information seeking (ELIS) behaviour in similar circumstances, and the related multiple complexities which surround information sharing and relationships.

This paper reports the findings of a study of the information practices of first-time mothers within the UK, and explores the issues which characterise their everyday life information seeking. In so doing, it begins to unpick the factors which influence their relationships with peers, family members and healthcare professionals.

2 Related work

McKenzie (2002, 2003) conducted a series of interviews with 19 Canadian women aged 19-40 pregnant with twins, and one third existing mothers; with a particular interest in practitioner-patient communication. McKenzie reports that “typical” accounts of mothers information seeking presented “a saga of active, incidental and serendipitous information practices being repeatedly foiled by barriers” (McKenzie, 2003, p. 23). Barriers reported include instances of failing to ‘connect’, nondisclosure or evasiveness, and hesitant question and answers sessions (McKenzie, 2002). McKenzie states that mothers’ information seeking may be shaped by wariness of how the act may be construed by others’ ideas of “when and how [mothers] should and should not ask questions” (2002, p. 37). However, few concrete examples of this effect and how it may inhibit

information seeking are provided. Furthermore, McKenzie cautions that certain elements of her work may not be applicable to other experiences of motherhood since they are bound to the "physical characteristics and social meaning of multiple pregnancy" (2003, p. 37), and a participant group "older and better educated than average" (2003, p. 23).

Fisher and Landry (2007) investigated the interpersonal everyday information seeking behaviour of 20 stay-at-home mothers (SAHM) of children of various ages and number; positing that while SAHMs have "substantial information needs... little is known about the range of these needs, how they emerge, how they are (or are not) met, and how [they] share information with others" (2007, p.215). With a background interest in spontaneous and serendipitous information sharing, the study focuses on information behaviour in social settings (or *information grounds*). They provide specific examples of how mothers' information worlds may be "founded upon and spin around of aspects of affect" (p. 211), as they move through information grounds such as playgrounds and schools. However, these examples relate to experienced mothers of older children who have established networks of information grounds over time. Acknowledging that participants were older (avg. 37.6) and well educated with "incomes well above the poverty line" (p.229); Fisher and Landry call for further research with younger, less educated mothers in particular.

Shieh *et al.* (2009) investigated information seeking behaviour in a survey of 84 low-income pregnant women aged 20-29. Preferred information sources were identified as health professionals, books/brochures, and family/friends; with key barriers related to the availability of information via mass media, computer access/use, a lack of family/friends, and proximity to health centres, and in relation, lack of transportation. Shieh *et al.* also report a positive trend between active information seeking independent of needs and being pregnant for the first time, although cautioning that the correlation was "weak and not statistically significant" (p.370) due to a limited number of primigravida participants. Shieh *et al.* concluded that "findings suggest that every encounter with the first-time pregnant women can be a teachable moment and that support given to them may reduce their information overload" (p.370), and called for further investigation.

Also via a survey, Berkule-Silberman *et al.* (2010) investigated sources of information of 287 mothers of low socio-economic status (SES), and found that family and friends were rated as the most important sources of parenting information, followed by print media and healthcare professionals; with television and Internet ranked lower in comparison. Acknowledging limitations associated with their use of general (predetermined) categories of information sources, and a lack of attention to social support; Berkule-Silberman *et al.* concluded that "additional research is needed to better understand the construct of parenting information" (p.566).

In summary, previous studies provide insight into preferred information sources and information barriers (cf. Berkule-Silberman *et al.*, 2010; Shieh *et al.*, 2009); and the role of social context, incidental information gathering and interpersonal connections to mothers' information practices. However, previous studies have also been largely limited to highly educated individuals self-presenting as "avid searchers for information" (Papen, 2013, n.p.). The early post-natal period has received limited attention (cf. McKenzie, 2002, 2003; Fisher and Landry, 2007). While it has been recognised that there are various factors which may influence new mothers' relationships with healthcare professionals, there are few concrete examples of how this may shape their information seeking and relate to the challenges faced by information providers.

3 Methodology

3.1 Background context – postnatal support in the UK

In the UK, an increasing proportion of new mothers are now discharged from hospital within one day of giving birth, losing the traditional “lying-in” period and leading to Donnelly (2008) arguing that maternity units are “turning into conveyor belts”. While greater societal demands and expectations are now placed on mothers, traditional sources of information via family and community networks have eroded or fragmented (Drentea and Moren-Cross, 2005). State support is evident through wide-ranging projects and programmes, but without “unambiguous evidence of sustained positive impact” (MacLeod, 2012).

Postnatal services are mainly delivered by Health Visitors who are members of National Health Service (NHS) teams who offer health screening, vaccinations and developmental checks. Mothers may contact them for an appointment or to arrange a home visit, and will come into regular contact with them during the first year of their infants’ lives. Family doctors (general practitioners or GPs) may also provide these services, and can be consulted about any other concerns via an appointment system. Many NHS clinics run parent and baby groups, peer support groups, or one-off informational events such as “weaning fairs”. Some NHS clinics are affiliated with or will recommend support groups facilitated by third sector organisations, such as the one in the current study.

3.2 Research context and aims

The research was conducted with the cooperation of a weekly, mother and baby drop-in group. Each week, mothers meet at the group to socialise with their peers, participate in parent/infant activities, and occasionally listen to a guest speaker or participate in a “taster session” for certain activities. The group is facilitated and activities organised by one of the project workers, and overseen by a development officer.

Taking a qualitative approach, this exploratory study aimed to gain a better understanding of the range of the information seeking behaviour of first-time mothers, during the early stages of their infant’s life (<1 yr.), as they negotiated new social and care-giving contexts and environments.

The study sought to answer the following research questions;

1. What are the typical information needs of first-time mothers, and how do they manifest?
2. What information services are used, what are not used, and what could be used?
3. What criteria influence mothers’ choice of information source?
4. What information challenges do mothers experience, and how do they respond to them?

3.3 Theoretical and conceptual basis

It was expected that the findings may be characterised to a degree by Fisher *et al.*’s (2004) theory of *Information Grounds*. Asserting that information behaviour is primarily affectively based; interpersonal sources, especially those who share common needs, interests or values to the

information seeker, are identified as preferred for their affective benefits and immediacy. The theory's emphasis on affect chimes with what we know about motherhood's relationship to emotional states and mental health (cf. Leahy Warren, 2005); it may be that emotions may play a greater role in information behaviour in this context than others.

However it should be noted, the theory describes how individuals gather at information grounds for a purpose other than information sharing, and information sharing is a by-product of the social interactions that occur there. The drop-in group had been set up with the intention of creating a place to share information, perhaps setting up certain expectations on the mothers' part.

The theoretical basis of the study was also informed by McKenzie's previous work in this area (2002, cf. section 2), and her model of information practices (2003). Highlighting the role of social context and relationships in information seeking, McKenzie (2003) proposed a two dimensional model of information seeking, with two stages: making connections and interacting with sources; and four modes of practice: active seeking, active scanning, non-directed monitoring, and seeking by proxy. She draws particular attention to how information seeking may be bound up in beliefs about "appropriate or inappropriate behaviour" (2002, p. 44), even in a situation where information seeking is expected and encouraged by information providers such as healthcare professionals.

3.4 *Nature of the research*

Informed by the researcher's initial observations during preliminary visits, the methodology was shaped by the social and drop-in nature of the group and by the presence of infants. For example the mothers often had informal, large-group discussions, and several asked about the researcher's own experiences. Therefore, the researcher followed McKenzie's example (in Carey *et al.*, 2001) and sensitively balanced fostering trust and "legitimising" the sharing of information via personal anecdotes from her own experiences of motherhood, with maintaining a researcher/participant relationship.

The study was conducted across 8 weeks, during 6 sessions of the drop-in group. The primary research methods were observation and semi-structured interviews, the latter supported by participatory methods.

3.5 *Research methods*

Participation was on an entirely voluntary basis, with participants able to withdraw at any point, and it made clear that they could attend the group without taking part. Informed consent was obtained from all participants, who were provided with information sheets which included information about data use and the purpose of the research. Ethical approval for the study was granted by the University of Strathclyde.

Initially, the researcher acted as a participant observer for 3 x 3 hr. sessions (weeks 1-3), helping to organise activities and interacting with the mothers and infants. This initial period was intended to foster trust and acceptance, as well as to inform the subsequent sessions. She was introduced to the mothers as a mother and former group member one of the project workers, and invited to explain the purpose of her visit and the nature of the research.

Group interviews were conducted to explore information needs (week 4), information sources (week 5) and barriers encountered (week 6). Similar to McKenzie (2002; 2003) and Bates (2004), narrative interviews were used as the primary means of gathering data, to gain insight into the participants' everyday experiences within their everyday social and informational environment.

Narratives are a "common, habitual method" individuals use to communicate information in everyday life, so it is a familiar and natural way for research participants to communicate (Feldman *et al.*, 2004, p. 3). Eliciting narrative accounts from participants "taps into people's everyday ways of expressing themselves" (Stevens, 1993, p. 40). They are characterised by the presence of perspective and context, acting as a window into subjective experiences which may provide insight in conceptions of social factors, identity and sense of self (Smith, 2000). Analysing narratives can allow the researcher to explore how individuals come to make sense of their experiences, and provides a richness and depth in the data by preserving "context and particularity" (Smith, 2000, p. 327). The technique involves encouraging participants to take part in a conversation and relate their experiences to the research topic, and is particularly suited to studies of a relatively small number of participants where the researcher wishes to investigate the values they assign to certain information needs, sources and seeking experiences (Bates, 2004).

Group interviews were chosen in order not to de-contextualise the discussions, and to reflect the nature of conversations which were observed during the initial stages of the study. Furthermore, it was felt that they would be less prone to interruption if an individual mother was distracted by her infant's needs which appeared to be a frequent occurrence. A simple interview guide was used to ensure that the discussions maintained a focus on the research questions, while remaining flexible. Broad initial questions were intended to encourage participants to use their own words to describe their experiences and begin the narrative, with the researcher using further questions where necessary.

For example during week 4, mothers were asked to tell the story of a time when they "had to find something out" related to parenting. Further prompts from the researcher asked about different types of information which they have sought or currently require, and about how they would categorise these needs. During week 5, the narrative began with the researcher asking "who or where do you turn to if you need to know something?" Mothers were encouraged to elaborate on points which arose in the discussion, with prompts such as "tell me more about asking your health visitor for information". In week 6, mothers were initially asked "tell me about times when it's difficult to get the information you need", and prompted as before to discuss any to information seeking which they had encountered.

To complement the discussion on information sources during week 5, the mothers were asked to use 5-point scales to rate common sources of information on frequency of use, usefulness and importance. The information sources which participants were asked to rate in week 5 were derived from items from Shieh *et al.*'s (2009) Pregnancy Health Information-Seeking Scale, which was designed to measure instances of information seeking from a variety of sources including health professionals and the media. The items were adapted to reflect the fact that the current study was of new mothers and not mothers-to-be, and a 5-point rather than Shieh *et al.*'s 4-point scale was used, to give participants the option to express neutrality (cf. Bryman, 2012). Mothers were free to complete the scales at any point in the session which suited them and their infants.

Participatory methods were included as a means of enriching the discussion, and providing a link between sessions. For example during the discussion on information needs during week 4, mothers were asked to write down examples of information needs they had experienced on post-it notes during the discussion. Later, in conjunction with the researcher, the mothers sorted and ranked these notes on a large board to indicate which they felt was most pressing. After the session, this board was written as a list by the researcher and brought to subsequent sessions, where mothers and gatekeepers were asked to comment upon it and add to it if they wished. Similarly, they were asked to rank, comment on or add to lists of potential sources of information or barriers to information at subsequent sessions.

During weeks 7 and 8, individual interviews were conducted with local information gatekeepers. These explored their perceptions of the information needs, sources and barriers faced by local mothers. Again, a simple, flexible interview guide was prepared to focus the discussion if required. They were shown and asked to comment on the list of information needs as compiled by the mothers and the researcher, before being asked to discuss their experiences in relation to where they felt local mothers were accessing information, and any barriers which prevented them doing so.

3.6 Data analysis

All interviews were digitally recorded and transcribed verbatim, apart from one gatekeeper interview (personal preference). Notes were taken immediately after each session to briefly summarise it and to record other contextual information.

The transcripts of the mothers' discussions consisted of their narrative accounts of their experiences of interactions where information seeking or exchange had occurred since their infants were born. Following McKenzie (2002), the study took a constructionist discourse perspective on their analysis, recognising that the accounts given reflect that information seeking is viewed as a facet of the mothers' identity (cf. Tardy, 2000, on information-seeking as facet of being a "good mother").

The narrative data was disaggregated into meaningful categories through iterative pattern coding. No formal coding scheme was used to categorise reported information needs or barriers, so that a pre-existing structure was not imposed upon the data, and findings would be representative of the participants' emphasis and narrative (cf. Muggleton and Ruthven, 2012).

Median scores of the ratings collected in week 5 of the three measures of information sources (frequency, importance and usefulness) were calculated (presented in *figure 1*). In a second tier of data analysis, a repeated-measures, one-way ANOVA was used to determine if there were significant differences between these ratings. Follow-up (post-hoc) Fisher's Least Significant Difference tests were used to identify differences within the group's rankings of information sources on each measure (results are presented in *table 2*).

4 Findings

4.1 Sample and demographics

22 mothers participated in total; however demographic data was returned variously incomplete in several instances. Of the 18 who disclosed their educational background, one had attended school

until S5/6 (until 17-18 years old) while all others had attended either college or university. 15 disclosed their ages, which ranged from 22-43 years old, with an average age of 29. 18 of the 22 were first time mothers. 20 of 22 described themselves as online on a daily basis.

5 information gatekeepers participated, who were either directly or indirectly involved with the group; the group’s development officer and project workers (2), a local health visitor, and a local public librarian.

Reflecting the order and key themes of the sessions with the mothers, the findings which follow are presented under three broad headings: information needs, information sources, and barriers to information seeking.

Selected quotes from the participants are used to illustrate key themes.

4.2 Information needs

Table 1 illustrates information needs identified during group discussion and observation, grouped and categorised by the researcher, and listed in decreasing order of importance as determined by the mothers. Mothers reported frequently occurring problems as those which felt most urgent;

...it was like a problem all the time... [I was] looking for information all the time.

In relation, several reported difficulty in identifying individual needs, or accurately identifying the source of a problem, as one issue could compound another:

I think we had a problem with the feeding, but it was affecting the sleeping...

There was general group consensus that in the first year of their infants’ lives, mothers experienced multiple information gaps. As one put it, “there’s a lot of stuff to get to know”. One mother of two reported that she had been upset by her health visitor’s presumption that her needs for information would be much less the second time round, and had been left feeling embarrassed:

I felt stupid...and it’s not like I was a first-time mum, but it’s just different circumstances.

Category of information need	Examples reported by mothers	Queries observed by researcher
Sleeping	<i>Use of sleeping bags, baby in own room, co-sleeping, crying, settling techniques</i>	<i>Use of “dummies” [soothers]</i>
Milk feeding	<i>Breastfeeding, formula feeding, use of bottles, giving cow’s milk, use of “sippy” cups, weaning from bottles</i>	

Weaning	<i>Weaning age, snack choice, healthy eating, including fruit and vegetables in diet</i>	
Health & infant care	<i>Supplementary vitamins, immunisations, developmental checks, first aid, illness</i>	<i>Sun safety, keeping infant cool in hot weather, use of reusable nappies, physical development</i>
Family	<i>Childcare, going back to work, family finance</i>	
Activities	<i>Local baby groups, places to go</i>	<i>The atmosphere of various baby groups, activities for infants</i>
Products & recommendations	<i>Recommendations for nappies, carseats, prams, books and toys</i>	<i>Website, online forum and Facebook group recommendations, infant clothing advice, online selling groups for infant equipment, infant swimming lessons and equipment</i>

Table 1 Information needs during the first year of infants' lives

The health visitor later commented that the needs identified by the mothers covered common questions typically asked of her, and broadly corresponded with a tick-box list of topics to be discussed with mothers during home visits. The development officer and project workers also agreed that the list identified typical information needs. The development officer explained that the group was set up based on what the mothers *wanted* to hear about, and on “issues we first of all thought they would face”. She thought that the group also played a part in providing a larger social network for mothers, with the week-to-week structure designed to encourage discussion and active information sharing. However in relation, a project worker commented that it was sometimes difficult to get the balance right between encouraging the mothers to support each other, and ensuring that they were accessing the right “evidence-based” parenting information:

...because though peer support's great, everybody is different... I think a lot of that information that we get is experienced based, it's opinion based, and it's not necessarily the right information to make the best [choice].

The project worker gave an example of a local breastfeeding support group that was no longer facilitated, and now run by a group of mothers themselves. When she had visited she had discovered that they had been sharing “bad information”, with no-one helping them source authoritative information about breastfeeding in particular, with many bottle-feeding.

4.3 Information sources

Mothers discussed key sources of information and individually rated them according to frequency of use, importance, and usefulness, on a scale of 1-5 (*not at all-not very-somewhat-quite-very*). Ratings are summarised in *Figure 1*, although these should be considered as indicative only. *Table 2* presents notable results of statistical comparison (full results available on request). Sources are

discussed below in participant ranked order, via the use of the participatory methods described in section 3.5.

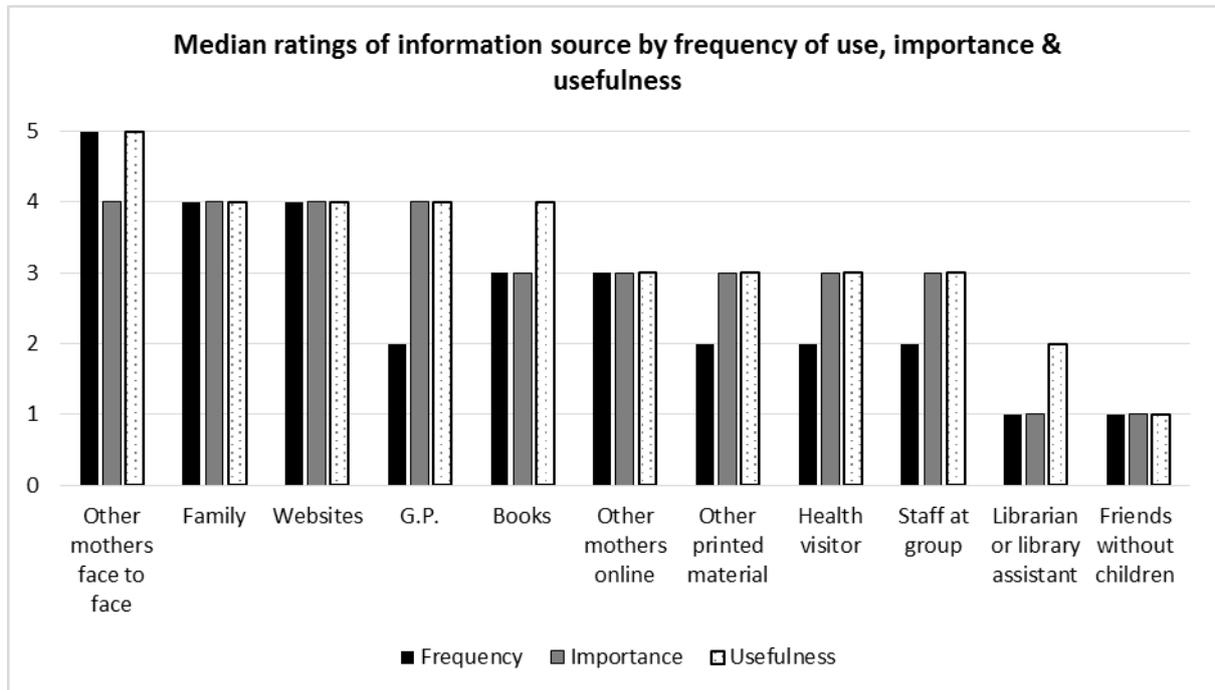


Figure 1 Median ratings of information source by frequency of use, importance & usefulness

Other mothers face to face are used *very* frequently, and considered *quite* important, and *very* useful. One mother commented:

There'll be some nights I'll sit and I'll be like 'argh!' Next time when I see [friends with children] I'll say this and see what they think about it.

There was group consensus that the common experience of other mothers was highly valued. There are significant differences between the ratings of how frequently *other mothers* were consulted compared to other sources of information, and they were ranked higher than all other sources apart from family and websites. Also, other mothers were considered to be significantly more important than all sources apart from family and healthcare professionals, and more useful a source of information than sources apart from family, books and healthcare professionals (cf. *table 2*).

For example, one mother explained that she sought and valued information from peers over other sources:

I probably make like a point of asking all the people that had all had babies at the same time if I've got a specific question... as supposed to going anywhere else.

In relation, several reported that they received most information from peers by "just chatting", and that while they may actively seek information from others, it often "just happens".

Family was *quite* frequently used, and considered *quite* important and useful. They were used more frequently than all sources apart from other mothers, websites and books (cf. *table 2*). However, for some, this preference had changed over time. One mother had come to realise that the information her family gave was out of date, since “the way they did it, it’s really different”. Another disliked disclosing information about problems with her infant to family members, since they often offered unsolicited advice and judged her parenting abilities:

Then you’ve got my gran trying to give her input...that’s just too much sometimes... Family are more judgemental!

They were rated as significantly more important than marginal sources of information such as library staff, staff at the group or friends without children, but not considered to be more important than other sources such as the Internet, healthcare professionals and other mothers. Some mothers seemed more at ease than others reconciling differences in parenting styles with family members, and valued their input and emotional bond; one explaining simply that her mother was her preferred source of advice “because she’s my ma”.

Websites were *quite* frequently used, and considered *quite* important and useful, with the majority of respondents using the Internet to look for information on a daily basis. Mothers tended to return to the same websites (e.g. babycentre.co.uk or www.nhs.uk). Several reported finding useful information about various baby products online, and sought online reviews before making expensive purchases. Many cross-referenced between such sites since “quite a lot of folk [online] disagree”. Another mother commented that forums were sometimes used not to share information, but more to “show off” such things as new purchases. Several mothers described themselves as “lurkers” on online forums, i.e. they read threads without commenting on them, sometimes reading information to prepare them for the next stage in their infants’ development:

I also read ahead...so that when I reach that stage I’ve got some tips ready.

One mother found it hard to find information about parenting twins since no-one in her immediate social circle had twins, and she thought that healthcare professionals “don’t really know”. She frequently used Internet forums to search for information since “it’s good to be able to ask a twin thing... from mums who’ve got twins”.

GPs (family doctors) were used *not very* frequently, but considered *quite* important and useful. Mothers recognised GPs (and HVs) as the gatekeepers of the “right” information, but also reported receiving conflicting information. Others felt that they had been patronised or had their concerns dismissed. One mother believed that GPs could “talk down to people”, and described a mother at the clinic who was “practically in tears when she came out”. Another wished “folk like doctors” recognised that first-time mothers were not “paranoid”, but “just don’t know about stuff the first time”.

Books were used *somewhat* frequently and considered *somewhat* important and *quite* useful. No discussion ensued.

Other mothers online via social media were used *somewhat* frequently and considered *somewhat* important and useful. Several mothers said they sought information from other mothers online when they wanted to draw on a *breadth* of experience, for example if they wanted information about the “next” stage in their infant’s development; and valued the diverse information that could be gathered from a larger group of mothers. There was a moderate negative correlation between the amount of time mothers spent on the Internet and how often they spent time with their peers outwith the drop-in group ($r=-0.490$, $p=0.028$).

One commented that she liked the way online forums were often organised by the month of infants’ birth, explaining:

All the mums have went through stuff at the same time when they had their babies within the same month...so I got much, like, relevant information off that.

However the theme of “judgement” from other mothers was also raised:

If you think it’s something ... people might judge you on, then you feel more comfortable maybe asking your friend rather than putting it out there to everybody.

Two of the mothers had set up their own Facebook group, which now had members from across the U.K. One explained that it had been set up as a way of sharing information and advice:

Anybody can ask any kinda questions. So there’s people from all over... and you get so much advice.

They had witnessed friction elsewhere online, and believed “competition” amongst mothers affected how comfortable others felt posting:

I’ve definitely noticed it on other pages. And people are like scared to like say stuff
We stated very clearly that on our page that we didn’t take kindly to bullying...people know that they’re not going to get judged.

Other printed material referred to information packs and leaflets distributed via health professionals and clinics. Although considering *somewhat* important and useful, mothers used them very little. Several reported instances of information overload, referring to the “BIG pile of stuff”, provided via Health Visitors. They also voiced suspicion about commercially sponsored information and a reluctance to consult it:

It’s quite commercial and that, you just don’t know...

I know there’s like, controversy about that just now!

It may be that “other printed material” and “books” as types of information source were being conflated by the mothers, since there were significant correlations between the ratings of the two sources in terms of usefulness ($r=0.804$, $p<0.001$) and frequency of use ($r=0.689$, $p=0.009$).

Health visitors (HVs) themselves were used *not very* frequently, but considered *somewhat* important and useful. Several mothers stated that they were uneasy asking healthcare professionals for “too much” or “certain” pieces of information, worrying that they would be viewed as over-protective:

I think sometimes you’re a bit not sure of asking about things in case they think ...oh, worried mother, or paranoid mother. And it makes you think, nah.

Others reported good relationships with local HVs, and sought their advice regularly. When talking about a “good” HV, mothers often made reference to their availability and openness to questions. One praised her HV for giving “realistic” advice. There were significant correlations between the ratings of importance and usefulness of HVs and GPs ($r=0.694$, $p=0.009$; $r=0.694$, $p=0.009$), and the frequency of use of each ($r=0.908$, $p<0.001$). As with books and printed materials, this may suggest that these sources were conflated by the mothers, perhaps explained by the local health visitors being based at the GPs’ surgery.

Staff at the group were used very little, but considered *somewhat* important and useful. No discussion ensued, possibly explained by staff proximity.

Librarians were *not* used and considered *not* important and *not very* useful. Of the 20 participants who responded to the question, 6 visit the library on a weekly basis or more, 3 visit every few weeks, and 11 rarely or never visit. Of the 13 participants who rated information sources during week 5, 9 reported never having sought parenting information from librarians, with several indicating that they visited libraries to attend Bookbug sessions (interactive group activity involving songs, stories and rhymes for babies and toddlers). Indeed, there was a moderate negative correlation between library visits and drop-in group visits ($r=-0.520$, $p=0.23$), perhaps explained by the similarities between the activities offered at each.

Friends without children were *not* used, nor considered important or useful. No discussion ensued, possibly explained by the implied lack of relevance.

Frequency of use of source			
Comparison			Sig. level (p value)
Other mothers, face to face	<i>Used significantly more than</i>	G.P.	0.001
Other mothers, face to face		Books	0.024
Other mothers, face to face		Other mothers, online	0.028
Other mothers, face to face		Other printed material	0.003
Other mothers, face to face		Health visitor	0.001
Other mothers, face to face		Staff at group	0.000
Other mothers, face to face		Library staff	0.000
Family		G.P.	0.002
Family		Other mothers, online	0.025
Family		Other printed material	0.004

Family	Health visitor	0.003
Family	Staff at group	0.001
Family	Library staff	0.000
Family	Friends without children	0.000

Importance of source

Comparison		Sig. level (<i>p</i> value)
Other mothers, face to face	<i>Significantly more important than</i> Websites	0.026
Other mothers, face to face	Books	0.020
Other mothers, face to face	Other mothers, online	0.014
Other mothers, face to face	Other printed material	0.001
Other mothers, face to face	Staff at group	0.001
Other mothers, face to face	Library staff	0.001
Other mothers, face to face	Friends without children	0.000
Family	Staff at group	0.020
Family	Library staff	0.006
Family	Friends without children	0.000

Usefulness of source

Comparison		Sig. level (<i>p</i> value)
Other mothers, face to face	<i>Significantly more useful than</i> Websites	0.026
Other mothers, face to face	Books	0.020
Other mothers, face to face	Other mothers, online	0.014
Other mothers, face to face	Other printed material	0.001
Other mothers, face to face	Staff at group	0.001
Other mothers, face to face	Library staff	0.001
Other mothers, face to face	Friends without children	0.000

Table 2 Comparisons of information source by frequency of use, importance and usefulness

Sources were also discussed with the information gatekeepers. One of the project workers explained that the support group had been set up after a post-natal project had ended, as mothers had “identified that there was still a very great need for *something*”. She commented:

[Because] of the community we have and the way society operates now [mothers] don’t necessarily have the ideas, they don’t know what to do with these wee babies... it’s just about being able to support them and give them ideas.

In relation, the development officer believed that the location of new housing developments on the edge of the town had separated first-time mothers in the area from traditional family sources of support.

The health visitor commented that her job had become much harder now that “everyone uses Wikipedia”. One of the symptoms she associated with mothers diagnosed with post-natal depression was a fixation on the health of their infants. She described “obsessive” Internet searching as “very dangerous” as she believed reading information from many sources could feed mothers’ anxiety. She described how she actively directed mothers towards the public library, described as the “self-help library”. However in relation, the librarian reported that attempts to provide a “self-help” library collection of health material had been met with mixed success, commenting:

I don’t think the majority of parents actually access information that way. They prefer a person-to-person kinda thing.

She perceived a need for a different approach to information provision for parents, and recognised the community support group as an example from which the library service could learn. She believed that parents were expressing a desire for more information and support in a relaxed social setting, and had developed a programme of activities for the infants incorporating information provision for the parents similar to that of the community support group. She commented:

Parents are quite comfortable in the library ... they’ll not go and listen to a talk about Childsmile... but if it’s introduced into a [Bookbug] session we do here then they’re quite happy to come along.

Although these new sessions were still in development she believed they were proving successful so far, which she attributed to the fact they were presenting “validated” health information in a relaxed, neutral setting. However, she also discussed how difficult it was to reach mothers in other groups, describing them as “cliquey” and “hard to break into”.

4.4 *Barriers to information seeking*

Barriers encountered by the mothers were a common topic across sessions with four main themes identified during the group interviews: lack of time and opportunity; conflicting information from different sources; requiring information about potentially contentious or sensitive topics; and lack of engagement with peers.

When asked about the biggest challenge to their information seeking, the vast majority of mothers answered that it was *time and opportunity*. When asked to describe the impact of this lack of time, several laughed and one stated simply “I don’t have time!” Several reported that they often came to the group intending to seek some information or advice from their peers, but found it difficult to find an opportunity, with seeking information online considered a convenient alternative:

Yeah, you’re busy with your baby and that, so sometimes when you’re at home and you actually HAVE half an hour of peace [laughter from group]... that’s when you have time to look something up on the Internet.

Several mothers reported that they received *conflicting information from different sources*, particularly from health professionals:

...you get so much conflicting [information] as well... they [GPs, health visitors, midwives] each tell you different things.

Two gave examples:

[The G.P.] said you avoid putting them in a car seat after they've been fed, cos it crunches up the stomach. And then a couple of days later my health visitor said, oh put her in her car seat after she's been fed so she's upright! [laughter] You just don't know what to do...

I had one health visitor tell me to give him water, and the other telling me not. And that was in the space of a week!

In relation, several mothers reported concerns regarding how to evaluate conflicting information, particularly during the early months of motherhood:

But it makes you worry in the beginning... getting all this information, and you're learning... you're afraid to make the wrong choices.

Several mothers commented that the best way to resolve conflicting information was via a "trial and error" approach. One described different advice she had been given to get her son to sleep, resolved by "just trying them both". In relation, maternal instinct was discussed, one mother commenting:

I just like, follow my instinct. [Agreement from group] I mean that happens all the time.

Others described gradually becoming more confident in differentiating between different sources of information, and seeking information for themselves:

[You're] more confident about like making your own decision...whereas it's like you take like everything that your health visitor or like other people tell you as gospel.

The mother above commented that her trust in the ability of her HV to provide her with the "right" information had waned over time, going on to explain that she believed the HVs themselves were receiving conflicting information from many sources, and subsequently not always sure as to how to advise mothers.

The issue of *potentially contentious or sensitive topics* arose in relation to breastfeeding. Several mothers reported that they had encountered difficulties obtaining information about bottle-feeding. One mother who breastfed thought (sympathetically) that it was "great that they [health professionals] encourage you [to breastfeed]", but was critical of the assumption that a mother would feed that way, and the lack of information provision on bottle-feeding:

You wouldn't like see that [bottle-feeding] as an option... I think they should probably tell you about that as well.

Another bottle-feeding mother became visibly upset as she recounted her own experience. She described various steps she had undertaken to be prepared for bottle-feeding such as sourcing information directly from a formula manufacturer (via telephone), and sourcing smaller teats and bottles. Later, she had asked a midwife several questions about bottle-feeding at an antenatal class:

And the midwife looked, and she just went yeah but surely that wouldn't be happening... everybody here - you will be breastfeeding, won't you? And everybody went yeah... but I said, I'm not, I know I'm not. And she was like right... well I don't have an answer to your question. And she went, well I can try and find out but obviously it's pretty short notice and I'm pretty busy. And I said well I'm sorry, but that's the information that you should have and you should be aware of, and what I'm saying is I'm looking for that information.

Although the midwife had later apologised, the incident had upset the mother:

And obviously, I left there feeling pretty down, I've got to say... I was made to feel really, really difficult.

She was also upset by the silence of the other mothers present, believing herself to have been negatively judged by her peers for not breastfeeding, and did not speak up at the group again. Thus, the anticipated reaction of others to her information needs acted as a barrier to her future information seeking.

Relatedly, the issue of *lack of engagement with peers* arose with several mothers stating that they felt more comfortable at the group that they now attended than at previous groups. One described trying several groups in the local area, and travelling to a neighbouring city because "I can be myself and we won't be judged". She felt that she had been previously judged by other mothers for not breastfeeding and excluded from their social group, describing an incident when other mothers told her:

We're just going to the breastfeeding group and then we're all going for coffee... only the breastfeeding mothers can. Catch you later!

Barriers to information seeking were also discussed with the information gatekeepers. The development officer felt *isolation* was one of the most significant problems faced by mothers in the local area. She was keen to encourage all mothers to use the services offered at the group, even those from more affluent areas of the town outwith the impoverished data zone in which the study took place. Although she acknowledged isolation was often related to poverty, health problems and inequality, she also believed that there are some who "live in a massive big fancy house who are very isolated", and that some who "live ten floors up... can be better off than that person coming in their 4x4". The group consequently tried to remove barriers to participation and engagement wherever possible, with mothers consulted on the most appropriate times of day and format to minimise disruption to infants and avoid clashing with other local services.

A project worker explained that some mothers found it more difficult to engage with the group since “it might not be something that comes naturally to them”. To overcome these challenges, she shared more personalised information about the value of certain activities for them. However, another project worker was less sure that information provision for first-time mothers in the community was sufficient:

We give them the information, they make the choice... but I don't think some people are always given enough information to do that. Or they don't know where to get it, or what to do.

The issue of isolation was also raised by the librarian, who felt that Bookbug sessions were beneficial for “mums who've felt a bit isolated... it becomes quite a social thing”, but acknowledged that some mothers just “don't see it [the library] as a place for them to come to”. She was hoping to overcome this problem by offering a wider range of library sessions for mothers to attend.

The health visitor identified what she described as “territorial” barriers. She explained that some mothers would not access services in particular areas of their town, due to feeling intimidated and the fear of violence. This was a problem that she had encountered frequently, and that restricted her ability to signpost mothers to local services and resources. It had been combatted to some degree by organising taxis to and from the children's centre, but the availability of such transport was limited. The health visitor also identified what she described as “psychological barriers” faced by some, attributed to previous negative experiences with services and institutions, mental health issues, and feelings of helplessness. She also identified lack of Internet access in impoverished circumstances as a significant barrier to information provision, as many NHS leaflets now direct mothers to online resources for further information. Finally, she discussed how an important part of her job was striking a balance between standardised care and personalising the information she provides to mothers.

5 Discussion

5.1 *Information needs and source preferences*

In the first year of their infant's lives, mothers' described their information needs as being multiple, interrelated, and at times difficult to distinguish from one another. Ranked by importance (see *table 1*), information needs associated with sleeping, feeding, weaning, and health care were identified as most pressing, followed by information needs associated with family welfare, mother-infant groups/activities, and products.

The majority of mothers reported seeking information or advice from other mothers and family actively and serendipitously, supporting McKenzie's (2003) findings, with all four modes of information practice reported to various degrees. In relation, the mothers reported a “little and often” approach to using websites to seek information, tending to rely on a small number of trusted sources and cross-referencing information between them; and utilising online forums to meet needs unmet offline, and when seeking broader experience or opinion.

The mothers clearly valued the experiential nature of the information they received from other mothers and family, and the shared reality of their experience. Parallels can be drawn to Chatman's (1999) *Life in the Round* theory, where she describes how the social norms of the group become key to their acceptance of information. Although mothers reported that *other mothers online* could be an important source of information, the vast majority preferred sourcing information from *other mothers face-to-face*, and valued a support group where they felt welcomed and accepted. In relation, Cronin (2003) reports first-time mothers expressing a desire for semi-structured group support, where they could "moan... without feeling guilty... where no-one will say anything back" (p.264).

Beyond shared experience and emotional bond, trust is also a significant factor influencing source preferences. Papen (2013) emphasised the importance of trust in source selection, and reports that her pregnant participants' information practices were shaped by "their constant assessment of knowledge for its trustworthiness" (n.p.). O'Key and Hugh-Jones (2010) partly attribute the credence given by mothers to advice from other mothers and family to the belief that such advice is principally driven by a fundamental concern for the child that, importantly, lacks wider agenda such as the need to promote policy or product. Our findings support this; with for example, mothers reporting reluctance to consult commercially sponsored information, as reflected in the lower ranking of *other printed material*.

5.2 Fear of judgment

The mothers feared being "judged" by other mothers, family and healthcare professionals about their parenting choices, causing them to hold back and refrain from seeking advice on contentious or sensitive topics in particular. This fear is not unfounded, since some mothers may seek to construct a positive maternal identity by comparing themselves to others in similar circumstances, and judging their own parenting to be superior (Abrams and Curran, 2010). Several healthcare studies have demonstrated that women who have a problematic experience of early motherhood may experience shame and guilt due to a perceived failure to meet maternal ideals, and be less inclined to reach out for support from health care providers (Abrams *et al.*, 2009; Foulkes, 2011). Comparisons can be made with Lingel and Boyd's (2013) discussion of stigma, where they discuss how individuals self-monitor in order to "avoid the consequences of displaying research of stigmatized information" (p.986). If *certain* information is viewed as stigmatised, individuals may experience a state of information poverty; a condition which can therefore be experienced in one facet of an individual's life but not others. Lingel and Boyd (2013) suggest self-monitoring maintains group boundaries and a sense of "social solidarity".

Fear of judgement was also evident in online forum interactions, with not all online experiences reported as positive, and causing some mothers to avoid posting (describing themselves as "lurkers"), or to consult offline sources. Drentea and Moren-Cross (2005) report that online discussion boards can contribute to a mothers' social capital via three main types of communication: emotional support, instrumental support, and community building; but also report similar conflicts, described as being the cause of "much anguish" amongst mothers (who also took steps similar to two of our participants (this time via administrators) to resolve conflict in order to maintain a stable, supportive environment). Online forums, offering anonymity via pseudonyms, can also provide an

outlet for sensitive “hidden” information needs not revealed elsewhere (Hasler *et al.*, 2014). Incidences of conflict remind us that offline behavioural issues persist online, and that while there is some consolation in anonymity, there is still an emotional cost.

Fear of judgement was also evident in mothers’ interactions with health professionals, who while considered important sources of information, are consulted infrequently. Peckover (2002) posits that health visitors’ need to “establish some knowledge and understanding about the families they are visiting” (p.372, 2002) can lead to tension, as mothers try to determine if a health visitor is concerned with support or policing, the latter leading to practices of concealment and resistance as part of their “discursive production” to portray themselves as good mothers. Similarly, in Heneghan *et al.*’s (2004) study, mothers believed that admitting emotional difficulties to a doctor would be “akin to admitting failure” (pg. 464), and they feared judgement and the possibility of social work referral. Notably, this fear was reported across all socioeconomic groups. Again, our findings would support this work, with mothers reporting instances of withholding information needs from health professionals due to fear of being perceived as over protective in particular. It is suggested that future work may explore healthcare professionals perceptions of their relationships with mothers, particularly to see if they perceive any conflict or tension surrounding their role.

5.3 “Maternal instinct”

Several mothers reported receiving conflicting information from family and health professionals; a problem which they resolved via their “maternal instinct”. Some received conflicting information from multiple professionals, which led to a hesitancy to seek information in the future and a failure to connect with these sources. McKenzie (2003), described similar failures to connection which she categorized as barriers due to their effect on future seeking behaviours.

Similar conflicts are reported by Arden (2009) with mothers having to weigh up official recommendations about when to wean infants with more tailored advice from health professionals, and advice from friends and family. Our study participants reported drawing on maternal instinct to resolve such conflict, one mother stating:

I just like, follow my instinct. [Agreement from group] I mean that happens all the time.

Arden (2009) reports that maternal instinct or “some specialist abstract knowledge that only a mother could have” was one of the most commonly reported reasons for decisions about when to introduce solids to an infant. She describes the conflict that can exist between “rigid” health education recommendations, more tailored guidance from health professionals, what mothers recognise in their infants, and what their “instinct” tells them. In relation, O’Key and Hugh-Jones (2010) report that claims about instinct or intuition are most common when a mother’s parenting decisions are in opposition to recommendations from health professionals. They posit that mothers rationalise dismissing health education messages in the belief that their unique knowledge of their children establishes them as good mothers.

The role of maternal instinct was also acknowledged by the health visitor who stated that ultimately she and her team have to believe that the vast majority of mothers want to do their best for their

infants, and that correspondently, she advises mothers to ultimately follow their “instinct” as to which recommendations are best for their child. “Mother knows best”, she said with a smile.

5.4 *Information overload and unmet needs*

Both mothers and gatekeepers reported information overload issues, the former with regard to printed materials distributed by health professionals and agencies, the latter with regard to “obsessive” seeking practices of mothers, particularly online and in the coping context. Carolan (2007) argues that there is a growing trend for well-educated and well-resourced individuals to request additional healthcare information from health professionals and for it to be provided, leading to “over-consumption” of information that can cause anxiety and confusion. This was reflected in health visitor comments in particular. Issues of reliability were also raised, one of the project workers describing how one of her “biggest worries” about the group was how to maintain a supportive atmosphere whilst ensuring mothers did not share “harmful” information; and the health visitor attempting to (unsuccessfully) direct mothers to underutilised library resources. In relation, librarian accounts of difficulties in attempting to “break into” community groups to engage with mothers align with Chatman’s (1996) insider/outsider theories.

A potentially significant unmet information need arose in relation to formula feeding. UK Government legislation (*The Infant Formula and Follow-on Formula Regulations* (2007)) does not allow the promotion of formula milk through the health service, unless accompanied by information about breastfeeding; widely promoted by the NHS as “the healthiest way to feed your baby”. However, breastfeeding is influenced by “multiple predisposing, facilitating, or impeding biopsychosocial factors” (Amir and Livingstone, 2010, p.77) and is “frequently challenging” for first time mothers (Williamson *et al.*, 2012), many of whom are unable to breastfeed (Riordan and Wambach, 2010). A widespread issue, a UK survey reports 19% of mothers’ formula feeding at birth rising to 31% after one week, with mothers reporting problems with sucking or latching, painful breasts or nipples, or insufficient milk supply (Office for National Statistics, 2012).

Williamson *et al.* (2012) are highly critical of approaches to breastfeeding support which construct it as a “non-negotiable sign of ‘good mothering’”, stating that they can:

Serve to isolate and disempower women struggling with breastfeeding [and] may have a deleterious impact on these women's psychological well-being and emerging maternal identities (Williamson *et al.*, 2012, p.435).

Mothers’ reported a general lack of public (impartial and non-commercial) information on formula feeding, compounded in one instance by a dismissive health professional (both issues arguably reflecting Burnett and Jaeger’s (2008) argument that the “public policy climate has become much more restrictive of the access and exchange of information”). One mother also reported social alienation from other breastfeeding mothers as a direct consequence of not breastfeeding herself.

5.5 *Engagement with support services*

Finally, while gatekeepers reported issues of engagement, access, and literacy, it is notable that the mothers themselves did not report such issues to any significant degree. Our participants had

clearly made an effort to participate in the group, being variously engaged to greater or lesser degrees, with many also meeting on a social basis. They were actively seeking information from a variety of sources and in two cases had taken the proactive step of setting up their own online support group. They were also well educated and older, both suggestive of a more affluent background.

A possible explanation for the disparity is that gatekeepers were recalling experiences not only with group members, but also with more isolated and disadvantaged mothers not attending the group due to access and behavioural barriers, often dealt with on a one-to-one basis via social work referral. This would suggest that within the community where the study took place, there are mothers experiencing significant information barriers, who are not actively engaged with support groups or services, and who's information needs and seeking preferences have not yet been fully identified.

6 Limitations

Similar to previous studies (e.g. McKenzie (2002), Fisher and Landry (2007)), mothers in this study were older and well educated. While gatekeepers highlighted concerns regarding isolation, stress and information literacy, it is notable that the mothers themselves did not report such issues to any significant degree. This would suggest there may have been local mothers experiencing significant information barriers, who were not actively engaged with support groups or services, and whose information needs and seeking preferences have not yet been fully identified.

It should be noted that the generalisability of the study may be limited due to it taking place within the context of the Scottish National Health Service, and the particular roles, responsibilities and expectations associated with Scottish healthcare professionals.

The notable absence of younger mothers (aged <20) is perhaps explained by a Family Nurse Partnership review that reports reluctance amongst very young mothers to participate in support groups containing older mothers, with a nurse practitioner observing that:

A lot of young women find it very difficult to take that first step and engage because they do fundamentally bring with them the baggage of always feeling judged, and feeling judged because, you know, they're very young and they've got a baby (Ormston *et al.*, 2012, p40).

4 of the 22 participants already had children. They were included as the alternative would have been to exclude them from a discussion involving every other mother in the group (and could still reflect upon personal experience when pregnant for the first time). Finally, given the number of respondents; no claims are made to statistical power, significance, or generalizability of findings.

7 Conclusions

In the first year of their infant's lives, mothers' information needs are multiple, interrelated, and at times difficult to distinguish from one another. Their accounts contain instances of confusion,

tension, conflict, and information overload. They place significant importance on the experiential nature of information received from other mothers and family, and in relation, a support group where they feel welcomed and accepted.

Beyond the shared reality of common experiences and emotional bonds, trust and fear of judgment are key factors influencing mothers' engagements with information sources. Francis (2012) suggests that mothering "has become an anxious endeavour, characterised by pervasive self-doubt and guilt" (pg. 927). Throughout our study, mothers expressed their worries about being "judged" and described how they felt under pressure to present themselves as "good" mothers.

We provide evidence that fear of judgment caused mothers' to withhold information needs, and influenced their information behaviour both on- and off-line. We provide further evidence that even when information sources are considered important and useful (e.g. healthcare professionals), fear of judgement results in them being used very little, highlighting the importance of sensitivity amongst professionals to this issue. Once again social support groups are shown to play a key role in mothers' information practices, by offering them a place to connect, and seek and share information without fear of judgment.

The authors recognise Savolainen's criticism that conceptualisations of affective factors in LIS still "tend to operate on a general level" (2014, p. 65), and Fourie and Julien's (2014) point that researchers can be prone to using "y'know" (n.p.) interpretations of terms rather than clarifying and tightening their definitions. We did not intend to focus on affective factors, but rather carry out an exploratory study that would begin to unpick the tangle of factors that influence the information behaviour of new mothers. Our use of terms such as *fear*, *judging*, *judged* and *judgment* reflect their use by the mothers. We would suggest that further investigation with this group could clarify and tighten the use of this concept as a lens for understanding information behaviour, by drawing on how it has been developed in other fields as suggested by Savolainen (2014).

Further investigation around engagement with library services seems warranted, as this appears to be an underutilised service. The issue of information provision regarding formula feeding was an emotive one amongst the mothers, and appeared to be bound in a complex web of societal values and state regulations and restrictions which also warrants further investigation. Finally, notably absent from the support group although present in the community, the information needs of very young mothers (<20) remains to be fully investigated, as do issues surrounding their engagement with support groups and services.

The participatory methods used during the sessions were extremely useful in facilitating engagement and interactive discussion with the mothers, with the narrative analysis of interview transcripts providing temporal sequence and context to information behaviours identified. This focussed attention on how mothers' made sense of their place and role within the events they recalled, and facilitated the examination of engagement factors such as identity, motivation and trust. The initial period of observation was invaluable, as it showed the level of flexibility and reflexivity required in a study in an environment as unpredictable and changeable as a mother and baby group, and led to the methodology choices described in section 3. The approach is recommended for further studies.

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