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Title: Young Parents' Personal and Social Information Contexts for Child Feeding Practices: An Ethnographic Study in British Columbia, Canada

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Abstract

Purpose: The purpose of this paper is to utilize McKenzie's two-dimensional model of information practices to situate child feeding practices as complex, socially situated information practices. Further, the authors examined a host of contextual factors (financial, physical, and social) that enabled and constrained information practices within the tightly controlled environment that defines the lives of young parents (YPs).

Design/methodology/approach: Methods of investigation were ethnographic in nature and data collection methods included naturalistic observation and interviews in two communities in British Columbia, Canada over a period of several years. Data collection and analysis was ongoing. During the initial stages of data analysis, a conventional approach to content analysis was used to identify key concepts, preliminary themes, and illustrative examples. Working within the broader category of child feeding practices, the authors used a constant comparative process of directed content analysis to identify sub-themes, namely, distinct physical, social, and financial influences on child feeding practices.

Findings: The YPs in this study described negotiating breastfeeding, formula feeding, and the introduction of solid foods within a heavily surveilled atmosphere with different and conflicting levels of support and information. The findings demonstrated that active seeking by YPs was often discouraged by authorities, and more passive practices of information encountering and receipt of information from proxies were accepted and expected.

Research limitations/implications: This study used McKenzie's two-dimensional model to paint a richer picture of YPs' information practices and their physical, geographical, financial, and social contexts.

Practical implications: These findings suggests that child feeding informational support should, rather than being prescriptive, take into account the complexities of YPs' relationships and daily lives, as well as the social structures that shape their experiences as parents.

Social implications: Child feeding practices are influenced by a host of physical, financial, and social factors, and are situated within familial and education environments, as well as broader social and policy discourses.

Originality/value: This research utilized McKenzie's two-dimensional model of information practices with a sample of YPs. Evidence suggested that child feeding practices were informed by active seeking, active scanning, non-directed monitoring, and by proxy, but these manifested differently for YPs than for the older expectant mothers upon whom McKenzie's original model was derived. Using ethnographic methods, the authors situated child feeding practices as complex information practices that are informed by conflicting information, physical, social, and financial factors and intensive parenting ideologies. This reinforces the need for information science researchers to understand contextual factors that influence practices.

1. Introduction

Food is a basic human need, yet feeding practices are socially, politically, and morally situated. Health issues across the lifespan, ranging from type 2 diabetes to osteoporosis, are linked to food consumption, placing dietary guidance within the purview of government, schools, mass media and health care systems. Parents—most often mothers—are targeted by "healthy eating" messages with the goal of improving child and maternal health. Mothers are expected to actively seek information and accept unsolicited advice (McKenzie, 2002; 2006; O'Kay & Hugh-Jones, 2010; Stearn, 1999).

These expectations are compounded for young parents, who are deemed a "risky" population and subjected to intense monitoring and health interventions (Brand et al., 2014; Shoveller & Johnson, 2006). For example, young mothers have been the subject of research linking risk factors, such as developmental weight gain and adolescent eating behaviours, to childhood obesity (Lemay et al., 2008; Tabak et al., 2016). Studies of this nature have been criticized for being reductionist and quantitatively focused, neglecting "the complexity of young people's lives and the social conditions in which they live" (Brand et al., 2014, p. 175). Yet it is this type of research that drives health policies and practices, and perpetuates the stigmatization and surveillance of young parents (Brand et al., 2015; Duncan, 2007).

The current research takes a more holistic approach to the baby and child feeding practices of young parents, with a focus on the information aspects of such practices. Drawing from an ethnographic study in British Columbia, Canada, this paper presents young parents' child feeding practices as intertwined with socially situated information practices (McKenzie, 2003a; 2006). Of interest is how young parents connect and interact with child feeding information, the ways in which information and social factors are woven into these narratives, and the relationship between food-related discourse and parenting identities.

2. Related work

Research on parents' information behaviours has focused on the role of information in the feeding intentions of women pregnant with twins (McKenzie, 2006), pregnancy-related information needs of low income mothers (Shieh et al., 2009), breastfeeding discourse in public health education materials (Wall, 2001), the everyday life information needs of new mothers (Louden et al., 2016), playgroups as information grounds (Tardy, 2000), and sources of information influencing introducing infants to solid foods (Arden, 2010; O'Kay & Hugh-Jones, 2010). Common in all of these studies is the ambiguity of parenting information sources. Incomplete knowledge, contradictory information, and difficulties deciphering norms and values within a given setting create uncertainty in parenting practices (Boholm, et al., 2013) and are compounded by "intensive mothering" ideologies in Western society (Hays, 1996).

Intensive mothering, also referred to as intensive parenting in an attempt at gender inclusivity, refers to the resources (physical, mental, financial) expended by primary caregivers to meet children's developmental needs (Romagnoli & Wall, 2012). Parents (frequently, but not exclusively mothers) engage in "information work" (Huvila, 2009) to acquire and expend resources, and their information activities are subjected to "expert" (e.g., health professionals) and non-expert (e.g., family, strangers encountered in public spaces) evaluation. Expectations of intensive parenting practices are promoted

by many mainstream parenting and mothering programs delivered by governments and community organizations, as well as by dominant mothering media and cultures. These formal and informal interventions reflect and reinforce societal (typically middle class) standards of what makes a "good" parent (Romagnoli & Wall, 2012) and requires substantial parental information work. Young mothers, stigmatized as risky and information poor (Greyson, O'Brien & Shoveller, 2017), are frequently targeted by and expected to conform to intensive parenting practices as evidence of their fitness as parents.

2. 1 Intensive Parenting

Parents are responsible for the basic food, shelter and belonging needs of their children, and these responsibilities are often disproportionately placed on mothers (Wall, 2001). Tardy (2000), in her observations of a weekly playgroup, found that mothers' sense of goodness was derived from their children's well-being, where sickness or injury was attributed to not having "done enough" as a mother, and from adherence to group norms and values. Acceptance within and sometimes sympathy from the group offered reassurance of "good" mothering.

Notions of "good mothering" are not only socially mediated, but also part of public policy (Nathoo, 2009; Paterson, Scala, & Sokolon, 2014; Wall; 2001). Within the Canadian context, Wall (2001) analyzed breastfeeding education materials produced or disseminated by Health Canada, the Alberta Ministry of Health, or the Canadian Institute of Child Health, concluding that breastfeeding was represented as a "moral obligation" within this discourse (p. 605). Nathoo (2009) criticized the emphasis on individuals rather than social determinants of feeding decisions (e.g., socio-economic conditions), and Sokolon (2014) argued that Canadian policy lacks "a 'woman-friendly' perspective that recognizes the diversity of acceptable infant-feeding goals and understands the practice within the larger scope of women's reproductive lives" (p. 212). Reflecting this lack of diversity within official baby feeding information, and the ways this limits its applicability to some real-life contexts, McKenzie found that health information designed for mothers of singletons left expectant mothers of twins "confused and feeling both that their needs were not understood and that their commitment to breastfeeding was called into question" (McKenzie, 2006, p. 225).

While health policy factors into child feeding practices, some parents rely on intuition, trial and error, and common sense (Walker, 2012; Louden et al., 2016). For example, some mothers in Arden's (2010) UK study adhered to the World Health Organization's guidelines for introducing babies to solid foods. Others looked for cues from their children (e.g., interest in food, frequent waking in the night), justifying their decision based on *their* babies' readiness and, in some cases, their own mothers' practices. Such experiential "ways of knowing" may be dismissed by health professionals or parents themselves depending on notions of authority or expertise (McKenzie, 2003) and temporal context. McKenzie (2006), for instance, found that women pregnant with multiples saw lived experience as more important *post-partum*, whereas *during pregnancy* biomedical knowledge was seen as "a superior way of knowing" (p. 224).

2.2 The context of young parenting

The "risk" associated with pregnancy at any age engenders healthcare and social surveillance and information interventions that target expectant parents. McKenzie's (2003) participants, for example, described receiving unsolicited information from intermediaries who *inferred* their needs for information. However, being a young parent (YP) in Western society is different from being an older parent. YPs' actions and decisions are questioned by society due to the prevailing view that they have made poor choices or lacked information about sex or contraception by becoming pregnant (Duncan, 2007; Whitley & Kirmayer, 2008). Youth pregnancy is thus labelled especially risky, subjecting YPs to a host of health messages (i.e., interventions) and monitoring (i.e., surveillance) (Brand et al., 2014; Shoveller & Johnson, 2006). Existing policies may even be punitive to young parents. For instance, parental leave is the legal right of working parents in many countries. However, in Canada, school attendance (unlike paid employment) does not qualify one for maternity or parental leave benefits, and YPs in high school are encouraged to return to school and place their children in daycare as soon as possible after birth.[1]

In British Columbia, the geographic setting for this research, surveillance for many YPs is legally mandated through "Youth Agreements" between the B.C. Ministry of Children and Family Development and youth 16-18 years of age who cannot live at home or do not have a parent or guardian to take care of them.[2] Youth Agreements allow YPs to live independently – provided they comply with a plan developed for them, which may include mental health, drug, or alcohol counselling, learning to manage money or shop for/prepare healthy food, attending school, and permitting social workers to visit them.[3] Thus, many YPs operate within a highly controlled environment wherein they are expected to seek and use information from government-sanctioned sources and to otherwise comply with their Youth Agreements. Although they may live independently, YPs lack a degree of autonomy as people and as parents. They may also depend on social services for basic provisions, such as diapers and food, and thus must at least appear to comply in order to receive support and avoid child apprehension.

2.3 Current study

A common assumption in information science is that information is sought to facilitate decision-making, with the goal of reducing uncertainty (Case & Given, 2016). Inconsistent and competing information from family, health professionals, food manufacturers, media, and so on make it difficult to evaluate information for the purposes of making general food choices. Further guidelines exist with respect to what,

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[1] In Canada for example, parents are entitled to 35 weeks of parental leave (in addition to 15 weeks' childbirth leave) if they have been employed in "insurable employment" or meet specific criteria: https://www.canada.ca/en/services/benefits/ei/ei-maternity-parental/eligibility.html

[2] The province of British Columbia considers young people to be minors until their 19th birthday, and has no "emancipated minor" legal status. Therefore, any young person below the age of 19 who is living independent of family/foster/residential care is expected to be on a Youth Agreement (YA)

[3] http://www2.gov.bc.ca/gov/content/safety/public-safety/protecting-children/youth-agreements

when and how to feed infants and toddlers. Breastfeeding, for example, is recommended by national health agencies as the "normal and unequalled method of feeding infants" (Health Canada, 2015). As a result, women who formula feed their infants may struggle to find unbiased information (i.e., not from formula manufacturers) and feel shamed and unsupported by health professionals *and other mothers* (Louden, et al., 2016; Tardy, 2000; Wall, 2001). Confronted with too many alternatives or resource constraints, people frequently satisfice, making decisions based on what information is accessible or known (Case & Given, 2016), or use heuristics (i.e., "rules of thumb") to cope with pressing or uncertain situations (Genuis, 2012). Yet McKenzie (2002) emphasizes that these practices are incompatible with information behaviour models that present information seeking and use as rational, directed, unemotional, and free of constraints.

McKenzie's two-dimensional model of information practices, developed through research on baby-feeding practices of mothers of twins, posits that individuals make connections and interact with information in multiple ways (which can be organized along axes of degree of activeness or passivity, and practices of connecting or interacting). Active seeking (e.g., searching, planned questioning) and scanning (e.g., browsing, systematic observation), clearly and directly aim to reduce uncertainty, whereas non-directed monitoring (e.g., serendipitous encountering), and seeking or receiving information by proxy (e.g., through intermediaries) may be less straightforward routes to obtaining information.

In this model, McKenzie emphasizes the "individual-in-context," recognizing the unique geographical, social, and situational factors that impact information practices, including notions of "good mothering" from intensive parenting discourses. Subsequent research has validated the importance of contextual influences on information practices; for exampleWalker (2012) discovered that lower income parents did not seek information to cope with child behaviour problems because they did not wish to focus authorities' attention upon their families or be labeled "bad parents" (p. 555). In some cases, the benefit of gaining information or support may be deemed too risky, and there may be a lack of faith that those who *could* help *would* (Chatman, 1996). Thus, parents, particularly those from disenfranchised groups, must negotiate a more complex information arena or life "in the round." Chatman notes that for those who reside in "small worlds" surveilled by outsiders, "[s]ocial norms force private behavior to undergo public scrutiny. It is this public arena that deems behavior—including information-seeking behavior—appropriate or not" (Chatman, 1999; p. 214).

While some information studies have addressed parents' information practices, little research has been conducted expressly on the information behaviours of *young* parents (see, for exception, Greyson (2017); Carson, Chabot, Greyson, Shannon, Duff & Shoveller (2016)). Child feeding represents an area rife with ambiguity and uncertainty due to conflicting information and points of view, and intensive parenting ideologies. In the current work, we utilized McKenzie's model to situate child feeding practices as complex, socially situated information practices. Further, we examined the host of contextual factors (financial, physical and social) that enabled and constrained information practices within the tightly controlled environment that defines the lives of young parents.

3. Methods

3.1 Research Participants

Previous research on parental information behaviour has commonly focused on educated, older English-speaking mothers who are married or cohabitating (Arden, 2010; Leahy Warren, 2005; McKenzie, 2006; O'Kay & Hugh-Jones, 2010); some studies have included parents from different linguistic or racial backgrounds, but these have tended to be limited in focus to information sources (Berkule-Silberman, et al., 2010; Shieh, et al., 2009), negating social factors or general decision-making practices. Further, there is a scarcity of research inclusive of *both* parents and service providers (see, for exceptions Walker (2012); McKenzie and Oliphant (2010)).

The current study recruited young mothers (YM) (*N*=90) and young fathers (YF) (*N*=23) expecting their first child or already parenting, socially significant others (SSOs) (*N*=2) (grandmothers), and service providers (SP) (*N*=25) (e.g., teachers, social workers, health care personnel) in British Columbia, Canada, for a total of 140 participants, 113 of whom were YPs. Table 1 shows the ages of all participants in total, by interviewee type (YPs only; all SPs and SSOs were over 24 years old), and for each site. Greater Vancouver (GV) includes participants from the Lower Mainland, inclusive of Metro Vancouver and Fraser Valley; data from Quesnel and Prince George (PG), both located in Northern BC, were combined for reasons of privacy. GV and PG YMs were, on average 18.86 (*SD*=2.4) and 20.57 (*SD*=2.5), respectively, while YFs were, on average, 20.83 (*SD*=3.3) years of age in GV and 22.52 (*SD*=3.2) in PG.

<<Insert Table 1 here>>

The two most common ethnic backgrounds represented in the study were European ("white") and Indigenous. White participants were equally present at both sites, while there were more people of Indigenous heritage at the PG site. Latin American and Asian ethnicities were represented primarily at the GV site. "Other" included a variety of specific European and compound ethnicities.

<<Insert Table 2 here>>

Many YPs had incomplete high school education (*N*=36) or were currently working to complete high school (*N*=47). Some participants had completed high school diplomas (*N*=19), while others were currently enrolled in college or university (*N*=9); two YMs had completed a trade, college or university program. YPs were asked about their reproductive histories, including number of children, number of pregnancies they were involved in, and pregnancies not carried to term. Most YPs had one child (*N*=76), but some interviewees had more than one child (*N*=24) or were currently expecting their first child (*N*=13).

Due to concerns over both privacy and accuracy, study participants were not asked to estimate and report the income or wealth of their families of origin, nor were they required to report their current sources of income. Household income is a highly sensitive topic in the study population, and the correspondence between youth income and socio-economic status is complex. However, we do know that, among participants who reported income sources, about half (*N*=22) reported receiving income assistance

from the government.[4] Young mothers also indicated that they (*N*=22) or their partner/co-parent (*N*=20) received income from some form of paid employment. Seven also were receiving employment insurance (indicating that they had lost a job within the previous year or were on maternity/parental leave from regular employment). No data are available on those who refused to or otherwise did not report on income sources.

3.2 Conceptual framework

This study adopted McKenzie's (2003) two-dimensional model where individuals make connections and interact with information through active seeking and scanning, non-directed monitoring, and by proxy.

Previous studies have employed content analysis of print health materials (Wall, 2001), or surveys and interviews to investigate child feeding practices (Berkule-Silberman, et al., 2010; Shieh, et al., 2009; Louden et al., 2016; McKenzie, 2002, 2006), and have collected data at a particular point in time, such as during pregnancy (McKenzie, 2002, 2006). The current research is ethnographic, similar to the work conducted by Stearn (1999) and Tardy (2000), but longitudinal, with interviews and observational fieldwork conducted over three years (2013-2016). The majority of participants were interviewed more than once and researchers were embedded within field sites. This methodology allowed for specific issues, such as bottle and/or breastfeeding, weaning, and introducing solid foods, to be followed over time, and within/across individuals.

This analysis explores the physical, financial, and social (familial and societal) factors that influenced child feeding, as well as the conflicting issue streams that influenced child feeding practices. It also examines YPs child feeding approaches in the context of intensive parenting discourse through YPs' connections between food and "good mothering" within broader young parent program and healthcare environments. These themes are situated in the heavily stigmatized and surveilled context of young parenting.

3.3 Research methods

Ethical approvals were obtained from the [UNIVERSITY BLINDED FOR REVIEW] (#H13-00415) as well as from participating school districts and non-profit organizations that served as fieldwork sites/partners. Methods of investigation were ethnographic in nature and data collection methods included naturalistic observation and interviews in two communities: Greater Vancouver (GV), Prince George (PG).

In Greater Vancouver, the observation sites included two school-based Young Parent Programs (YPP); two Neighbourhood Houses that provide young parent services such as support groups, childcare, and designated youth family workers; and occasional observations at other community organizations that hosted young parent services and events. In Prince George, fieldwork centred around a school-based Young Parent

[4] In British Columbia, government-sponsored income assistance is available to individuals who are unable to work or not currently earning sufficient amounts to support basic needs, including food and shelter. https://www2.gov.bc.ca/gov/content/family-social-supports/income-assistance/apply-for-assistance

Program and two non-profit organizations that provided childcare, support, and family development services as well as educational opportunities. Six to eight weeks of ethnographic fieldwork were undertaken at each site for each year of the study, typically structured in two-week visits; data collection consisted of naturalistic observation, hand written field notes, and photographs of the information materials present in the spaces, (e.g., posters, signage, print materials). Participants were recruited for initial and follow up interviews at the observation sites, and through local health, education and social services networks, posters and social media websites, and supplemented by a combination of referral sampling techniques. When YPs enrolled in the study, they were asked if they wished to invite a socially significant other to also participate, which sometimes led to enrolment of additional YP and SSO participants.

Interviews with YPs consisted of open-ended questions about their: (a) knowledge of and experiences with programs, services, and policies; (b) experiences of being a young parent living in their community; (c) goals and aspirations for themselves and their children; (d) experiences with structural supports (e.g., welfare, subsidized housing); and (e) recommendations on how to improve educational, health and social support for young parents. YPs were also asked to respond to close-ended demographic questions. Over the course of the study, participants were invited to take part in follow up interviews, and 78 chose to do so at least once. Service Providers (SPs) were also interviewed to understand their perspectives on young parenting practices and local services and supports, as well as their recommendations on how to improve existing interventions for YPs; 3 SPs were interviewed more than once. These interviews also explored SPs' capacity to tailor efforts to subgroups of young parents (e.g., fathers; street-engaged parents), and the state of policy/program offerings related to the needs of BC YPs.

Participants' eligibility was confirmed before making an appointment for an interview. Interview locations were selected for confidentiality and safety, and information on local counselling and/or health and social services was offered to all participants at the time of informed consent. Intake interviews lasted approximately 1.5 hours, with follow-up interviews typically lasting 45-60 minutes. Recorded interviews were transcribed verbatim with personal identifiers removed; interviewees selected a pseudonym, which is used in the reported results along with their physical location (e.g., GV, PG). Participants were encouraged to review their interview transcripts for privacy and accuracy (i.e., member-checking).

3.4 Data analysis

Data collection and analysis was ongoing, and the qualitative data, including interviews and field notes, were managed using NVivo software. During the initial stages of data analysis, a hybrid inductive-deductive approach to content analysis was used, whereby research team members (i.e., third author, graduate research assistants) read through the text, made notes, and defined preliminary codes inductively; these initial codes were grouped and organized into broader categories, e.g., "housing." Links between these broader categories were created, and, as new data was added, comparisons were made to identify new categories or examine negative evidence. All transcripts and field notes were coded deductively on a rolling basis, using this inductively-derived and -modified coding tree.

Subsequently, a more directed approach to content analysis was undertaken (Hsieh & Shannon, 2005) by the first author. Working within the broader "child feeding practices" category of deductively coded data, the authors used a constant comparative process of inductive analysis to identify sub-themes, using as sensitizing concepts the physical, social, geographical and financial influences on child feeding practices. In light of McKenzie's previous work on mothers' baby feeding intentions and information practices (2002; 2003; 2006), this content was then examined through an information practices lens. Throughout this process, relevant literature on child feeding (breastfeeding, bottle-feeding, introduction of solids), decision-making theory, parenting decision-making, and parents' information seeking was sought, engaged with, and used to inform the data analysis. Findings are presented to situate young parents' child feeding practices as dependent on social information practices that occur in complex and conflicting physical, financial and social circumstances. In accordance with other literature, the findings here examine how child feeding is intertwined with notions of intensive mothering or parenting. The voices of the YMs, as those who bore primary responsibility for child feeding, are dominant, but YFs and SPs perspectives are included where applicable.

4. Findings

McKenzie (2003), amongst other LIS scholars, has posited that information is not always actively *sought*; individuals may stumble upon information or have it arrive unsolicited (and unwanted) in everyday life settings. McKenzie's two-dimensional model describes how people connect and interact with information. Derived from her work with expectant mothers of twins, this framework was suited to this study. In the highly surveilled and stigmatized lives of young parents (YPs) some of the more active forms of interacting and connecting with information were curtailed by YPs' lack of autonomy or authority, insufficient resources, and need to comply with rules and social norms. In the following section, McKenzie's modes of interacting and connecting with information (i.e., active seeking, active scanning, non-directed monitoring, and by proxy) are explored with respect to YPs child feeding practices. These modes are then considered according to what McKenzie calls the "individual-in-context," where various factors are described that constrain YPs use of information to make child feeding decisions.

4.1 Active Seeking

Young parents described a range of print, online and in-person information sources they sought out and interacted with to support their child feeding practices. While challenges arose from active seeking due to conflicting information from the same or multiple sources; nonetheless many YPs strategically gathered and evaluated information. YM Brown (GV), for example, looked for information on the BabyCenter website to determine if her consumption of alcohol was detrimental to her breastfed baby.

> *[I]t said if you're sober enough to drive, you're sober enough to breastfeed so that's what I did [...] but then I feel so guilty the next day that I decided to ask a question like "Oh is it okay? Will my son be okay?" on the Baby Center app or whatever, on the thing, and then moms were very supportive. They were like "It's*

okay, you know, like, you deserve it once in a while but next time you should take this precaution and do this and that," which really helped.

Upon reflection, she visited her physician to receive confirmation from a more authoritative source. The empathy of other mothers was important to Brown, but she was compelled to follow up with a medical expert, suggesting that both "expert" and non-expert information and emotional support were important. Not all YMs unquestioningly followed the advice of health providers. Naomi (GV), for example, was told not to give her breastfed baby water by a nurse, but ultimately sought out the advice of another mother who contradicted the nurse's advice.

Sofia (GV) found herself trying to determine the best course of action to treat an infection after receiving conflicting information from a physician and pharmacist. Sofia's doctor gave her an antibiotic prescription that was not safe for breastfeeding. After talking to the pharmacist, Sofia returned to her physician's office for a new prescription—a process that was frustrating and imposed additional financial and time costs. The contraindication of medications with breastfeeding also presented dilemmas for mothers with postpartum depression, bipolar, and other psychological conditions, or those wishing to use hormonal contraception. Some YMs did not seek out information about medications safe for breastfeeding, opting to not use the medication or to bottle feed. Other YMs researched which forms of contraception were considered safe for breastfeeding, and brought this information to their medical appointments. Yet, this active seeking was not always encouraged. When Ally's (PG) primary physician instructed her to wean her toddler in order to take prescribed contraception that was contraindicated with breastfeeding, she sought out a different doctor to prescribe her a progestin-only oral contraceptive.

4.2 Active Scanning

Young Parent Program (YPP) sites are engineered as locations in which active scanning is expected to take place: they contain books, pamphlets, and posters, and allow for formal (e.g., educational programs) and informal (e.g., preparing and eating meals) education to occur. Participants in the environment engaged in conversations, asked opportune questions, saw the informational materials, and observed the actions of/interactions between YPs and SPs. One instance of active scanning was captured in the PG field notes and involved an open discussion about the cost of prenatal and breastfeeding classes, with one YM reporting that there was a one hundred dollar fee for the course. Though others shared that the fee had been waived for them or that they had found an alternative course, someYPs present viewed this as a deterrent to taking the course.

The YPPs were also sites where YPs were "corrected" by SPs about their child feeding practices. At the GV YPP, a session on preparing bottles hygienically was designed to educate a YM whose baby was having digestive problems. On another occasion, one of the YPP staff commented how inappropriate it was for a YM to share a banana with her daughter before lunch because it was disrespectful to the staff and students who had worked to prepare the meal. This public admonishment worked to reinforce the rules operating within the space for the YMs targeted and present. Similarly, a public health nurse criticized Kim (GV) during a community health program for introducing solids "too early" (i.e., before a full six months of age), despite the fact

that Kim had shared this information only *after* another (older) mother in the group admitted to giving her own baby rice cereal at five months. Kim and other YMs described turning away from programs and services where they had these kinds of experiences in an attempt to minimize stigmatization by information providers, hindering their ability to use these locations for further information gathering.

4.3 Non-directed monitoring

Non-directed monitoring took on new, multidirectional, meaning in this study. While YPs did make unexpected discoveries in the context of everyday life, they were also themselves the target of monitoring through online media and within the small worlds of young parenting. Ally, a YM in PG, relayed how a photograph of her on the social media site Facebook holding an alcoholic drink precipitated an unwanted encounter with social services, despite the fact thatshe was of legal drinking age at the time. Olivia (PG) described how she and another breastfeeding mom "definitely look down upon formula" and were not convinced that some women genuinely could not breastfeed. Olivia was herself the target of social surveillance and judgment for smoking cigarettes, but rationalized that her decision to smoke was not as bad as another mother's practice of formula feeding.

> *…a lot of people glare at you for it and they give you dirty stares when you're pregnant and smoking. It's disgusting, ew, don't do that. The one chick I just thought in my head I was, like, "Yeah, I might be smoking but you're giving your baby formula."*

While not actively looking for information, physical and virtual monitoring activities conducted in the course of everyday life provided information to and about YMs that were often used to gauge "good mothering" and elucidate implicit and explicit social norms.

YPs also made informational connections with respect to child feeding practices through their day-to-day interactions as parents. Though not explicated by McKenzie or in the literature on parents' information behaviour, parents "monitor the context" (Savolainen, 1995; McKenzie, 2003) by being in tune with their children. SP Matteas (GV) shared examples of how YPs adopted a trial and error approach to child feeding, or responded to signs from their children in introducing solid foods:

> *I've seen a lot of parents go "Well, you know, from this month to this month we're going to introduce this." And I go, "Okay, well sure you can – you can go that way." But I've noticed with the younger parents that they're watching their kids and they're going "Hmm, you're already looking at my food. You're already trying to…let's just have a little lick. Let's just see." You know, they're very open to that. So it's very nice, I don't know.*

A number of young mothers reinforced Matteas' observations, recounting how they judged their babies' readiness by monitoring the micro-context of the child's development, introducing small amounts of solid food and observing their reactions. Matteas – and the interviewees themselves – painted a flexible, responsive picture of YPs child feeding practices that drew upon observation and experimentation in every day life. In contrast with other instances in the data, YPs' lack of adherence to formal recommendations was portrayed in this case as positive rather than risky or negligent.

4.4. By proxy

The world of young parenting, which is heavily surveilled and informed by (often mandatory) interactions with health care and service providers, involves a great deal of information acquisition by proxy. Service providers are expected to promote current Canadian baby feeding recommendations, but many of the YMs' breastfeeding experiences with health care personnel demonstrated that these proxies failed to give adequate and timely information and support. Information received by YMs from these "expert" proxies was at times not only counter to official baby feeding recommendations, but also affected by prevailing biases and stigmatization of young motherhood, bringing to the fore the role of the YMs' contexts in shaping their child feeding information experiences.

Some YMs received implicit anti-breastfeeding messages through interactions in hospital after giving birth. Maria Theresa (GV) shared that a nurse "threw out" the colostrum she had pumped, while Tina Turner (PG), recounted that the nurses were giving her son formula without her knowledge and without asking her to "come across the hall" to breastfeed him. Despite the fact that she voiced her frustrations to the nurses, they continued to feed her son formula. Ella (GV) felt that social services "never really let me [breastfeed] because they thought that I was doing drugs and then to do all these like, testing on my breast milk and like, it was so embarrassing." Kim (GV) also did not perceive that breastfeeding was an option she was given. She did not breastfeed initially because she had planned to place her child for adoption; however after deciding not to proceed with the adoption, her physician told her it would not be a good idea to reinitiate milk production.

These examples are consistent with other breastfeeding literature where "…health professionals [have] ignored the mother in decision-making, brushed aside her wishes, criticized or discounted mothers' feelings" (Laanterä, et al., 2011, p. 79), yet also speak to the loss of agency experienced by YMs through interactions with healthcare providers that were based on assumptions or unconscious biases related to their age, ethnicity, or drug history. Margaret (PG, SP) speaks to the objectification of YMs by some SPs:

> *There's some fantastic nurses and doctors that have made a difference for some of our girls. But things like uh, when they're trying to figure out breastfeeding… the nurses come in, and they don't talk to them about their bodies. They don't say, "Do you mind if? I'm just gonna put my hand here. I'm gonna touch your baby there." They just are treated like objects. We're talking about young women who may have experienced sexual abuse. The fact that they would even attempt to breastfeed is frickin' phenomenal! You know? Or being told when they want to breastfeed so badly and they're trying so hard, and they just get told, "Give him a bottle."*

4.5 The individual in context: Physical, place-based, financial and social influences on child feeding practices

McKenzie acknowledges the "individual-in-context" in her model of information practices. Young parents child feeding practices – in addition to being scrutinized and surveilled – were influenced by physical, financial and social factors. Similar to parents in other studies (e.g., Stearns, 1999), YPs were aware of the Health Canada recommendation to breastfeed exclusively from birth to six months, and the pro-breastfeeding assertions that support such policies (e.g., increased immunity for their

children).[5] While some YMs reported breastfeeding successfully, others were open about their struggles, citing a number of common physical and emotional challenges relating to both baby (e.g., weight loss) and mother (e.g., pain). Some mothers who experienced these difficulties moved to formula feeding; often the decision to formula-feed hinged on the (un)availability of informational and social support to overcome breastfeeding challenges.

Levels of support to manage such challenges of breastfeeding varied according to the interaction of geographic location and culture. Generally speaking, the GV region—a large metropolitan area with a wide range of breastfeeding support services[6] and a great deal of population diversity—was more supportive of breastfeeding, with a greater number and variety of breastfeeding information resources, but community groups and organizations varied in their degree of breastfeeding friendliness even within this region. According to some SPs, YMs in PG received very little assistance from Labour and Delivery nurses after giving birth; these YMs needed to make an appointment with a lactation consultant to receive this kind of support, and nurses did not come to the home to assist with breastfeeding. This may explain why YMs in PG spoke of seeking informational support largely from friends and family with breastfeeding experience, with varying degrees of success. Ally (PG) described her desire and struggle to breastfeed after receiving little support in hospital. When she arrived home:

> *I was engorged and I had...I had no clue what to do. And...so I tried breastfeeding her on my own and then...that was, like, I...I can't even remember if it was working or not 'cause I mean, I had no...clue of, like...how babies are supposed to latch on or anything. So for all I know she could have been latching on properly. And then one of my friends who had just had a baby 10 months before, she had a breast pump still and so she sterilized it and let me use it. And I couldn't figure out how to use it. So...so I just, like, gave up and…within a few days and decided to keep formula feeding.*

While information alone was not sufficient to fully support breastfeeding, ultimately, a lack of information could sabotage even the best of intentions to breastfeed. Some YMs did breastfeed, but some were never able to establish breastfeeding, and others switched to formula once they arrived home from the hospital or returned to work or school. In addition to information, physical, financial, and social factors affected child feeding.

YMs spoke of how keeping up with the demands of a hungry baby led to physical exhaustion and limited their ability to accomplish house cleaning, grocery shopping, or homework. Lisa (PG) experienced a different kind of physical barrier to breastfeeding. She pumped breast milk for her baby, who was in foster care, knowing it did not always reach her son. She lacked control over what and how her baby was being fed, but tried to see her own efforts in a positive light, "I think they were giving him formula. [pause] But I didn't mind as long as he *at least* had a bit of breast milk 'cause it's... it's healthier." Lisa's act of pumping milk could be seen as an attempt to have some involvement in the child feeding practices of her son despite his apprehension.

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[5] http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/recom-6-24-months-6-24-mois-eng.php

[6] http://www.vch.ca/your-health/health-topics/breastfeeding/

Physical and financial concerns were closely coupled regarding the decision to breastfeed. However, the cost of formula feeding was an incentive to breastfeed; those who had decided to bottle-feed relayed financial struggles in terms of how much of their monthly budget went to purchasing formula. This incited Scarlett (PG) to switch her baby from a name-brand formula to a less expensive, store brand formula, and Linda (GV) to stop giving her daughter formula when she was seven months old. Both YMs felt the needed to justify this decision in the interviews, reiterating they acted with their doctors' knowledge and support, invoking this expert knowledge as a defense against criticism.

Darkat (GV) had attempted to procure formula supplements from a service agency and was told she would not be helped unless she was HIV positive. In addition to financial difficulties purchasing formula, she felt that she was ostracized for bottle-feeding, "…they would, you know, make me feel bad for like, being a bottle feeder and I would be like, hiding in the corner like, filling his bottle like, feeling ashamed of myself because, you know, they're so gung-ho about [breastfeeding]." Conflicting messages that on one hand promoted "breast as best" yet on the other implied that YMs were unlikely to be successful breastfeeders or even denied them access to informational support sometimes placed YMs in such positions of shame over their baby feeding practices.

Lastly, YPs' social relationships impacted their child feeding practices. In some cases, these influences were positive and supportive, while in others they created conflict and loss of confidence. On the one hand, YPs relied on their families for advice and other information about breastfeeding, making baby food, or types of food to introduce. Information from family and friends was sometimes in conflict with authoritative sources, however. Maya (GV) had learned at the YPP that babies learn to eat by experimenting, and that she should give her daughter a spoon and let her try to eat; her mother felt the baby needed to be older and did not want her "making a mess."

Other food related struggles with family revolved around weaning from the bottle or breast, and healthy eating. In many cases, mothers' wishes to wean their children from the bottle, continue to breastfeed, or to control the kinds of food their children consumed was not respected by their own parents. April (PG) was frustrated that her children would not eat "real food" because "Grandma…likes to give my kids chocolate milk all the time," and Maria Theresa (GV) lamented that trying to change what her parents fed her child when she was not present was futile "unless I want to start a fight, and I don't." Maria Theresa and other YPs who lived with their families often depended on them for shelter,food, and childcare, all important for emabling YPs to continue with schooling or be employed. Tensions described in the interviews conveyed that YMs gave up some control over their children's diets, even when they knew this was contrary to official health recommendations, in order to continue to receive familial support. In these cases, again, information was important for aiding YPs' child feeding practices, but insufficient to grant them autonomy to consistently follow child health guidance.

5. Discussion

The young parents in this study described negotiating breastfeeding, formula feeding, and the introduction of solid foods within a heavily surveilled atmosphere with different and conflicting levels of information and other supports. Child feeding practices were informed by active seeking, active scanning, non-directed monitoring, and by

proxy, but these manifested somewhat differently for YPs than for the older expectant mothers upon whom McKenzie's original model was derived. Child feeding decisions, and use of child feeding information and recommendations, were influenced by a host of physical, financial, and social factors, as such practices are situated within familial and education environments, as well as broader social and policy discourses.

O'Kay & Hugh-Jones (2010) found that the volume, inconsistency, and mistrust of food messages from manufacturers, government and media sources caused uncertainty in the mothers they interviewed, and led them to reject external knowledge in favour of "maternal" and local knowledge (p. 528). Similarly, McKenzie (2003) found that pregnant women worked to "validate or contest" information source authority by relying on their own personal beliefs and experiences as counter evidence. Many YPs in this study demonstrated the ability to locate and evaluate external information with their own instincts and will. In some circumstances they persevered when they were told their ideas were not legitimate, but in other instances they "gave up" on a course of action or disengaged from potentially useful information environments, limiting their active seeking and scanning.

Louden et al. (2016) found that mothers in their study failed to share their information needs with health care providers out of fear of being perceived as "over protective" (p. 40), while young low-income mothers in Romagnoli and Wall's (2004) study reported attending parenting classes for "economic survival" and fear of child protection services. In the current study, YPs may have been especially careful about what they shared in interviews, choosing to discuss primarily "healthy food" practices. The nature of the interviews suggested that YMs knew healthy food was equated with healthy children and "good parenting." Further, it was apparent that non-directed monitoring of virtual and physical spaces by others sometimes worked against these YPs, instigating negative interactions with social services and peers, and perpetuating assumptions about YPs and social norms.

A positive expression of non-directed monitoring articulated in this study occurred within the everyday acts of parenting, where YPs derived cues from their children and solved child feeding problems through experimentation. McKenzie (2003) found that pregnant women "'dr[ew] from a range of scripts' selectively to accept or reject other people's advice or experience as applicable for their own situation" to arrive at a "best for me" decision (p. 282). In this study, however, YPs attempts to do this were often thwarted by authorities that contested their knowledge or failed to support them at key junctures, for example, initiating or sustaining breastfeeding.

Relying on the advice of family members may have been problematic from a health perspective in some instances, but must be considered in the context of other determinants of child feeding decisions (Nathoo, 2009), such as trust in and accessibility of information sources (Walker, 2010) and how medical best practices have shifted over time, putting the knowledge received by mothers today at odds with previous generations (Stearns, 1999). YPs gave up some of their agency in exchange for familial support, and conformed to family practices that were not always consistent with official information sources. This finding reinforces Berkule et al. (2010) who rightly concluded that interventions that focus exclusively on mothers are doomed to fail.

Guidelines for breastfeeding and introducing solids caused confusion for YMs when their proxies – hospital nurses, family physicians, and social workers – failed to

assist them with breastfeeding, contradicted the "breast is best" narrative, or pushed them toward formula feeding. Related research has reported that contradictory information about child feeding negatively affected parents' trust in the information provided by health care workers over time (Louden et al., 2011). Such conflicting information and lack of support may reflect heavy workloads, time pressures, and health care providers' own receipt of inconsistent information (Laanterä, et al., 2011). However, these incongruities may be compounded by SPs' assumptions about YPs' parenting capabilities, based, at least in part, on their age, ethnicity and socioeconomic status.

Leahy Warren (2005) characterized social support as structural (composed of formal and information social networks) and functional, providing different types of support, e.g., emotional, informational. In her survey of mothers, she found that first time mothers relied equally heavily on public health nurses and their own mothers as information proxies, and that there was a need for professional information on baby feeding. In this study, baby-feeding support was different for the GV and PG locations, with less information and assistance available for PG mothers, particularly in the critical first week following birth. Leahy Warren (2005) also concluded that appraisal support, or the reinforcement of parenting skills, from partners and public health nurses was important for mothers' confidence. Walker (2010) reached a similar finding, concluding that parents in his study articulated their "information needs" as the need for reassurance about a decision they had made or that they were being a "good parent" (p. 562), and that this was important for reducing uncertainty about parenting practices. With some exceptions, this study did not see much evidence of this kind of reinforcement in the interactions with SPs recounted by YPs.

7. Conclusions

This study used McKenzie's two-dimensional model to paint a richer picture of YPs' information practices related to child feeding, and the role of their physical, geographical, financial and social contexts. The findings demonstrated that active seeking by YPs was often discouraged by authorities, and more passive practices of information encountering and receipt of information from proxies were accepted and expected. In alignment with previous research, child feeding was affected by conflicting information and intensive parenting ideologies. However, these issues were amplified for young parents. As Laanterä, et al. (2011) noted in their study of breastfeeding counselling, "[p]rofessionals and lay supporters do not always understand that supporting women is not the same as giving advice to them" (p. 78). These study findings suggest that child feeding informational support should, rather than being universally prescriptive, take into account the complexities of YPs' relationships and daily lives, as well as the social structures that shape their experiences as parents.

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